

ABSTRACT

TITLE OF DISSERTATION: “LOCKER ROOM (RAPE) CULTURE”
AND MALE ATHLETES’ ATTITUDES
TOWARD SEXUAL VIOLENCE:
EXPLORING PSYCHOSOCIAL
DIMENSIONS OF MASCULINITY IN
SPORT

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The issue of sexual violence perpetrated by male athletes has garnered increased scholarly attention over the last three decades. Existing research, however, has focused largely on whether athletes are more prone to sexually violent attitudes or behavior than other groups, devoting minimal attention toward psychosocial factors within sport that actually underlie this issue. Even fewer studies have situated the problem of male athlete-perpetrated sexual violence (MASV) within the psychology of men and masculinities. To address some of these gaps, the current study explored how male athletes’ sexist and sexually violent attitudes toward women are influenced by their masculine norm conformity and exposure to vignettes depicting violent hazing practices. Two hundred and four NCAA Division I male athletes completed a measure of masculine norm conformity. Participants were then randomized into experimental conditions, exposing them to either one of three experimental vignettes depicting a violent or abusive hazing scenario (e.g., forced nudity, forced touch, or forced binge drinking) or a control vignette depicting a prosocial team-building activity. Results revealed no significant differences across conditions in subsequent reports of rape myth acceptance or sexism, and conformity to masculine

norms mostly did not moderate relationships between hazing exposure and outcomes. However, for the full sample (i.e., controlling for hazing condition), greater conformity to the masculine norms of violence, power over women, being a sexual playboy, and heterosexual self-presentation all predicted higher levels of rape myth acceptance and sexism. Furthermore, exploratory analyses revealed that hazing conditions did have an impact on participants' subsequent levels of state affect. Finally, noteworthy differences emerged across types of sport, whereby athletes participating in team and contact sports endorsed greater masculine norm adherence and higher levels of sexism than their counterparts. Limitations, future research directions, and implications for practice are discussed.

“LOCKER ROOM (RAPE) CULTURE” AND MALE ATHLETES’ ATTITUDES TOWARD
SEXUAL VIOLENCE: EXPLORING PSYCHOSOCIAL DIMENSIONS
OF MASCULINITY IN SPORT

by

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Dedication

To survivors everywhere.

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None of this would have been possible without the care, love, support, and guidance from those below and many others in my life.

To Megan: There should be an honorary doctorate for those who support their partners as they stumble and crawl their way through grad school. Over the past decade, you've never let me forget what truly matters. You've shown me what it means to build and rebuild our relationship each day, to hold love accountable while knowing it will be messy in its growth. You've been a teammate, a guide, a cheerleader, a writing consultant, a fierce protector, and a no-bullshit truth-teller. You've been there as I've begun healing and reconstructing my own relationship with masculinity. You've brought me back from the depths of angst and despair, often reminding me that nature, laughter, hugs, cheeseburgers, and whiskey can provide layers of warmth against the cold and harsh journey through a PhD. You've tolerated my neuroticism, pushed back against my imposter syndrome, and allowed me to feel scared and vulnerable while reminding me I can also feel brave and strong in who I am. No 'thank you' will ever be enough, but I know Shake Shack usually works, so I'll probably go with that.

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“LOCKER ROOM (RAPE) CULTURE” AND MALE ATHLETES’ ATTITUDES TOWARD SEXUAL VIOLENCE: EXPLORING PSYCHOSOCIAL DIMENSIONS OF MASCULINITY IN SPORT

Chapter 1: Introduction

“What makes violence a face of oppression is less the particular acts themselves, though these are often utterly horrible, than the social context surrounding them, which makes them possible and even acceptable. What makes violence a phenomenon of social injustice, and not merely an individual moral wrong, is its systemic character, its existence as a social practice.”

(Iris Young [1990], *Five Faces of Oppression*)

Over the years, an alarming number of male athletes have perpetrated rape and other forms of sexual violence against women, raising questions around whether sport somehow fosters such behavior (Forbes et al., 2006; Luther, 2016; Messner & Stevens, 2002; Murnen & Kohlman, 2007). To date, the specific underpinnings of this issue remain unclear. Studies on whether male athletes or certain sports are more prone to sexual violence than other groups have been mixed. Some findings suggest that men’s perpetration of sexual violence can be predicted by involvement in sport (Crosset et al., 1995; Murnen & Kohlman, 2007), involvement in some types of sport (Forbes et al., 2006; Gage, 2008), or even specific personality traits (Caron et al., 1997) or “positions” in sport (Welch, 1997). On the other hand, a number of studies have also found no unique link between male athletes and sexually violent attitudes or behavior (e.g., Brown et al., 2002; Gidycz et al., 2007; Locke & Mahalik, 2005; Smith & Stewart, 2003).

However, to effectively address an issue like male athlete-perpetrated sexual violence (MASV)¹, it is worth reflecting on the practical utility of the research questions traditionally being asked (Crosset, 1999). In other words, while there is value in the studies cited above, to what extent can they inform sexual violence prevention (SVP) programming in sport? Debates

¹ The current study focuses on male athletes’ sexual violence against women. However, it is important to acknowledge that the broader issue of sexual violence in sport includes sexual abuse and violence perpetrated by coaches, medical staff, and other stakeholders, as well as many instances in which boys/men are victims (e.g., Larry Nassar, Greg Winslow, Jerry Sandusky, USA Swimming & Diving).

about whether male athletes (or certain sports) are more prone to sexual violence than other groups were described as “unproductive and simplistic” many years ago (Crosset, 1999, p. 244), and yet these questions continue to be the primary focus of most research. Answers to these questions may justify bringing SVP programs into these spaces, but they contribute very little to the content of such programming (Murnen, 2015). Similarly, studies on whether certain personality profiles predict MASV are also limited (i.e., to what degree can SVP programs aspire to elicit characterological change in men?). Instead, there is a pressing need for research on unique *cultural* and *psychosocial* factors in sport that influence MASV (see Casey & Lindhorst, 2009; Crosset, 1999; Murnen, 2015) – a need that persists regardless of whether the prevalence of sexual violence in sport differs from other contexts. In other words, more studies should focus on the *how* or *why* behind this issue rather than solely on the *who*.

One area of research that has received limited attention concerns the intersection of sport and rape culture (Burnett et al., 2009; Curry, 1991). Rape culture has been defined as “a complex set of beliefs that encourage male sexual aggression and supports violence against women. It is a society where violence is seen as sexy and sexuality as violent” (Buchwald et al., 1993). Such cultures are often characterized by traditional gender roles, adversarial sexual beliefs, tolerance of violence, and sexism and other forms of hostility toward women (Burt, 1980; Johnson & Johnson, 2017; Lonsway & Fitzgerald, 1994). While studies have explored some of these dimensions of rape culture in sport (Forbes et al., 2006; Smith & Stewart, 2003), the body of research remains small. Regarding traditional gender roles, it is somewhat remarkable that research on masculinity as a predictor of MASV is so scant, given that sports – like college fraternities (Seabrook et al., 2018) and the military (Shields, 2016) – are often bastions of traditional masculine norms such as aggression, competition, and power (Messner, 1990). In fact,

some notions of masculinity in sport are often associated with that which is colloquially referred to as “locker room culture” (Curry, 1991), aspects of which have been linked with sexual violence (Cole et al., 2020). While definitions of this phrase may vary, one of the only known studies on a male athlete locker room described it as a space characterized by “fraternal bonding,” competition, status attainment, sexism and sexual objectification of women, and traditional masculine norms (Curry, 1991).

In light of these overlapping and glaring gaps in the literature on MASV, the current study explored aspects of rape culture in sport, focusing specifically on how psychosocial dimensions of masculinity influence male athletes’ sexist and sexually violent attitudes toward women. Noting recent calls (e.g., Addis et al., 2010, 2016; Murnen, 2015) to contextualize masculinity research and re-align it with principles of social constructionism, the current study employed an experimental design to examine whether exposure to vignettes depicting certain abusive – albeit so-called “team bonding” – practices within sport (e.g., hazing) influence male athletes’ sexist and sexually violent attitudes. This study also explored the role of individuals’ conformity to masculine norms. The sections below situate this study within relevant bodies of existing research, starting with (1) the broader literature on the psychology of men and masculinities, followed by (2) research on masculinity as it relates to sexism and sexual violence, and finally, (3) forms of abuse among male athletes that serve to enact and uphold many traditional masculine norms and potentially normalize sexually violent attitudes and behaviors.

The Psychological Study of Masculinity

Psychological research on masculinity has historically explored how boys and men are socialized into (i.e., learn about, construct, experience, relate to, and perform) aspects of their gender role, as well as many associated mental and behavioral health outcomes. These outcomes

can include sexual violence or other forms of aggression (Moore & Stuart, 2005; Murnen et al., 2002), as well as depression and substance use (Wong et al., 2017), well-being (Gerdes & Levant, 2018), relationship satisfaction (Burn & Ward, 2005), academic engagement (Marrs, 2016), help seeking behaviors (Seidler et al., 2016), and other markers of psychological and behavioral health. Different lines of research on the psychology of men and masculinities (PMM) have explored different facets of the male gender socialization process across different populations in different ways. This variability has yielded growing complexity in our understanding of masculinity, as well as many “parallel but dissimilar” ways of conceptualizing and measuring it (Thompson & Bennett, 2015, p. 115).

Before discussing these dissimilarities (and how they shaped the current study on male athletes), there are a few prevailing assumptions that should be noted. First, PMM scholars have generally upheld an important distinction between sex (e.g., male²) as biologically oriented, and gender (e.g., man) as socially constructed (Smiler, 2004). While the current study focuses on the latter, PMM research has historically been interested in and informed by both (Levant, 2008). Second, scholars have traditionally viewed “masculinity” as a construct relevant to, but still distinct from, gender. Like femininity, masculinity can be performed or enacted by individuals of any and all gender identities (Parent & Smiler, 2013). Third, over the past 30 years, PMM research has evolved to recognize a plurality of *masculinities* (rather than a single, stereotypical construct), all of which are informed by historical, cultural, and contextual forces, as well as intersections with identities such as gender, race, ethnicity, sexual orientation, social class, etc. (Smiler, 2004). Finally, across psychological research on men, there are frequent references to

² While “male” usually denotes sex rather than gender, throughout this manuscript, it is also used as an adjective (e.g., male athletes, male sport, male gender role) – not as an indicator of biological sex, but as a gendered descriptor for a given noun. This practice is consistent with a majority of PMM scholarship.

“hegemonic masculinity,” despite this being a term popularized by sociologists (Connell & Messerschmidt, 2005). Within the PMM literature, hegemonic masculinities have been defined as “...the most widely accepted forms of being a man as defined by the historical era, social institution, or community” (Thompson & Bennett, 2015, p. 116).

Beyond these assumptions, PMM research has historically diverged in ways that have yielded an increasingly robust understanding of what masculinity is, how it functions (adaptively and maladaptively), and the many ways in which it shapes the lives of boys and men. However, this divergence has also resulted in a literature that can at times feel convoluted in its use of seemingly related and overlapping constructs, many of which are often used “interchangeably and imprecisely” (Addis et al., 2016, p. 81). For example, researchers have studied masculine gender role strain (Pleck, 1981), masculine gender role conflict (O’Neil, 2008), masculine gender role stress (Eisler & Skidmore, 1987), and subjective masculinity stress (Wong et al., 2013) – each of which reflects a (presumably) unique lens for, and measure of, how men cognitively, emotionally, and behaviorally engage with the gendered standards, expectations, and pressures of their lives. Of note, several of these paradigms have been used to study men’s sexually violent attitudes and behavior toward women, including research showing that the degree of men’s experience of “gender role conflict” can predict their sexual aggression or coercion, dating violence, or sexist and rape-supportive attitudes (O’Neil, 2008).

Separately (though not unrelatedly), PMM research has also explored “masculinity ideologies,” or the set of “prescriptive and proscriptive social norms that sanction men and masculinity performances” as well as men’s beliefs and attitudes toward those norms (Thompson & Bennett, 2015, p. 115). In their review, Thompson and Bennett (2015) identified 16 different measures of masculinity ideology. These include versions of the Male Role Norms Inventory

(Levant et al., 1992) and the Conformity to Masculine Norms Inventory (CMNI; Mahalik et al., 2003; Parent & Moradi, 2009), the latter of which measures the extent to which an individual adheres to “societal expectations for what constitutes masculinity in one’s public or private life” (Mahalik et al., 2003, p. 2). Examples of these expectations include emotional control, violence, power over women, being a sexual playboy, risk-taking, and presenting oneself as heterosexual (Parent & Moradi, 2009). Similar to research on masculine gender role conflict/strain/stress, research has consistently found links between endorsement of traditional masculinity ideologies and sexually violent outcomes (e.g., Cole et al., 2019; Le et al., 2020; Locke & Mahalik, 2005)

While all of this suggests that there is no one “right” way of studying masculinity and its role in MASV, it is worth noting that nearly all of the above constructs are measured via self-report and used almost entirely in cross-sectional designs (Addis et al., 2010; Whorley & Addis, 2006). In other words, research has consistently operationalized masculinity as a relatively stable indicator of one’s ideas about, conformity to, or experiences of stress resulting from, dominant norms and expectations for being a man. This overwhelming adherence to self-report and cross-sectional methods has been repeatedly criticized by some PMM scholars (e.g., Addis et al., 2010; 2016), partly because “masculinity is not something inside of men that they possess; it is something they do” (Addis, 2011, p. 56). Put another way, cross-sectional approaches can undermine an understanding of masculinity as something socially constructed, dynamic, and situationally and contextually contingent – “...effectively [reducing] the social construction of masculinity to an individual difference ‘variable’” (Addis et al., 2016, p. 84). Accordingly, “trait-like measures of masculinity necessarily constrain us to asking and answering questions about stable differences between individuals, rather than variability within individuals across situations” (Whorley & Addis, 2006, p. 650).

Nevertheless, there is a separate body of masculinity research – rarely cited in the above literature and produced largely by social psychologists (e.g., Vandello & Bosson, 2013) and sociologists (e.g., Munsch & Willer, 2012) – that offers a slightly different paradigm for understanding men’s gendered lives. These studies (most of which employ experimental designs that expose men to some form of “gender threat”) treat masculinity less as a trait-like construct, and more as something that is dynamically experienced, perhaps even volatile. The Theory of Precarious Manhood, for example, emerged from a series of experimental studies by Vandello and colleagues (2008) which showed how the social status of manhood, unlike womanhood, is widely perceived to be elusive and tenuous. In other words, “manhood” is not regarded as something inherent in or assigned to boys and men, but instead, is something that (1) is difficult to earn, (2) is easy to lose, and (3) requires public demonstrations of proof (e.g., risk-taking, aggression, avoidance of femininity) in order to be achieved and maintained (Vandello & Bosson, 2013; Vandello et al., 2008; Weaver et al., 2010).

Of note, masculinity research paradigms that are more “state-like” in nature (e.g., Precarious Manhood) are also not without limitations (e.g., Addis & Schwab, 2013; Heesacker & Snowden, 2013). Further, these two bodies of research – studies on supposedly stable individual differences and studies on masculinity as something more dynamic – do not constitute the entirety of PMM literature. More importantly, they need not be viewed as mutually exclusive. In other words, in its totality, research suggests that masculinities can function both intrapersonally and interpersonally; that they can have both static and dynamic elements; that they can play out “within” and between men simultaneously, and that they can be relatively stable constructs that behave differentially across situations and contexts.

While these paradigms have, for the most part, been used independently of each other, research has more recently studied interaction effects between individual differences pertaining to masculinity and exposure to a masculinity threat (e.g., Hunt et al., 2013). This includes research on whether men's general conformity to masculine norms moderates their appraisal of hypermasculine advertisements (Parent & Cooper, 2020), or their aggressive driving behavior after their masculinity is threatened (Brady et al., 2018). The current study on MASV sought to similarly test an interaction between person and situation by drawing upon the respective bodies of literature suggesting that masculinity – both as a marker of “individual difference” and as a “precarious status” – influences men's sexist and sexually violent attitudes.

Masculinity, Sexism, and Sexual Violence

Psychological research on sexual violence can present numerous challenges, not least of which are concerns about whether men will be honest in disclosing past sexually violent behavior or their likelihood of engaging in such behavior in the future. Accordingly, while studies still find relatively high rates of men willing to disclose that they have engaged in acts of sexual coercion (e.g., Young et al., 2017), most research has focused on attitudinal or ideological dimensions of “rape culture” (Johnson & Johnson, 2017). These include rape-supportive attitudes or attitudes toward women, since these are often predictive of sexually violent behavior (e.g., Bohner et al., 2005; Yapp & Quayle, 2018), and are also often deemed to be “more common and more socially acceptable” (Murnen & Kohlman, 2007, p. 153).

The current study focused on two attitudinal outcome variables of interest – sexism and rape myth acceptance – both of which have been consistently identified as aspects of rape culture (Burt, 1980; Johnson & Johnson, 2017; Lonsway & Fitzgerald, 1994) and have been empirically linked with men's perpetration of sexual violence. Sexism, for example, can include attitudes

toward women that are overtly hostile (e.g., “*Women seek to gain power by getting control over men*”) as well as those that are ostensibly benevolent, but rooted in stereotypes that depict women as weak or inferior (e.g., “*Women should be cherished and protected by men.*”; Glick & Fiske, 1996). Sexist beliefs have often been linked with sexually violent attitudes and behavior in previous research. For example, one study found hostile sexism to be one of only two (out of seven possible) attitudinal predictors of sexual aggression by men (Forbes & Adams-Curtis, 2001), while men’s (and women’s) benevolently sexist attitudes can also predict their tendency to blame rape victims (Abrams et al., 2003; Durán et al., 2010).

Rape myth acceptance (RMA), on the other hand, reflects one’s personal endorsement of “beliefs about rape (i.e., about its causes, context, consequences, perpetrators, victims, and their interaction) that serve to deny, downplay, or justify sexual violence that men commit against women” (Bohner et al., 2009, p. 19). Rape myths (e.g., “*In the majority of rapes, the victim is promiscuous or has a bad reputation*”) often serve to shift the blame from perpetrator to victim and contribute to a hostile environment for rape survivors (Burt, 1980; Suarez & Gadalla, 2010). These attitudes not only undermine the likelihood that victims report abuse, but they also help predict rape perpetration, as a growing body of evidence supports the positive link between men’s RMA and their sexually aggressive behaviors (Locke & Mahalik, 2005; Tharp et al., 2013; Yapp & Quayle, 2018; Young et al., 2017). Research has even begun to generate support for a causal link between RMA and men’s rape proclivity (Bohner et al., 2005).

Researchers have drawn on different paradigms from the PMM literature (e.g., conformity to masculine norms, men’s gender role conflict) to help explain how masculinity informs or influences men’s endorsement of sexist or sexually violent attitudes or their perpetration of sexually aggressive behavior (Cole et al., 2019; Fox & Tang, 2014; Le et al.,

2020; Locke & Mahalik, 2005; Murnen et al., 2002; O’Neil, 2008; Seabrook et al., 2018; S nderlund et al., 2014; Tharp et al., 2013). Given the prevalence of rape, sexual assault, and dating violence on college campuses (Adams-Curtis & Forbes, 2004), much of this research has focused on college-aged men (e.g., Gidycz et al., 2007; McDermott et al., 2015a), with specific attention on sub-cultures (e.g., athletics, fraternities) typically associated with traditional or “hegemonic” masculine norms (Brown et al., 2002; Locke & Mahalik, 2005; Seabrook et al., 2018; Young et al., 2017).

Compared to the limited research on masculinity and sexual violence among male athletes, research on fraternities is more extensive. Among undergraduate men, for instance, studies show that men who are in fraternities, compared to those who are not, are more likely to endorse RMA (Bleecker & Murnen, 2005; Murnen & Kohlman, 2007), and recent evidence suggests that this association can be at least partly explained by ideas about masculinity. In a sample of 365 undergraduate men, for example, Seabrook and colleagues (2018) found that two mediators – masculine norm conformity and tolerance for objectification of women – helped to explain the link between fraternity membership and RMA. The same study found that perceived pressure to uphold masculine norms mediated the link between fraternity membership and college men’s use of deception to have sexual intercourse (Seabrook et al., 2018).

It is also important to avoid overly simplistic interpretations of research findings on masculinity and sexual violence. Too often, public dissemination and digestion of PMM research can yield widespread misconceptions about masculinity as something that is wholly and inherently “violent” or “evil” (Addis & Hoffman, 2019). Instead, research suggests that conformity to *some* masculine norms (e.g., violence, power over women, being a playboy, disdain for homosexuality) can positively predict college men’s sexually aggressive behavior or

their rape-supportive attitudes (Le et al., 2020; Locke & Mahalik, 2005). Similarly, research using the Gender Role Conflict (GRC) paradigm (O'Neil, 2008) suggests that men's sexually violent attitudes and behaviors can be predicted by their views on emotionality, intimacy, and power. Studies on GRC have found sexual violence to be linked with men's fear of expressing emotions (Senn et al., 2000), the degree to which men restrict affectionate behavior toward other men (Rando et al., 1998), or the degree to which they endorse the importance of success through power and competition (Kassing et al., 2005).

Similar to trends within the broader PMM literature, research on masculinity and sexually violent attitudes is limited in its heavy reliance on cross-sectional designs. This also indicates an underlying assumption that sexually violent attitudes are relatively stable (Munsch & Willer, 2012). However, rape-supportive attitudes can also be induced by situational or environmental stimuli, including exposure to certain media content or experiences that elicit a threat to one's gender status. For example, in a study on media headlines about the sexual assault allegations against former NBA player Kobe Bryant, researchers found that male participants who were exposed to headlines containing rape myths were: (1) less likely to perceive Bryant as guilty, (2) more likely to accept rape myths than women who were exposed to rape myth headlines, and (3) more likely to endorse personal RMA than men who were exposed to headlines without such myths (Franiuk et al., 2008). Another study randomly assigned 141 college students to watch video game content that was degrading and violent toward women (e.g., scenes involving women being objectified, battered, or murdered by men), and found that exposure to such content resulted in significant increases in RMA among male participants from pre to post measurement, but had no such impact on female participants (Beck et al., 2012).

Studies aligned with the aforementioned Precarious Manhood paradigm (see Vandello & Bosson, 2013) also suggest that men's aggressive thoughts and rape-justifying attitudes increase when their masculinity is threatened. For example, Munsch and Willer (2012) studied the impact of a "gender threat" on participants' attitudes toward vignettes about date rape and sexual coercion. The researchers found that, when their masculinity is threatened, men were more likely to blame a victim of date rape and exonerate/justify the actions of the perpetrator. On the other hand, women who face a threat to their femininity responded by placing more blame on the perpetrator and less on the victim (Munsch & Willer, 2012). Further, men can often resort to physical aggression as a means of restoring a threatened gender status (Bosson et al., 2009). All of this has led scholars to suggest that, "violence against women is believed to be a means [by which men] try to resolve masculinity threat in that it is a clear assertion of male dominance through female subordination" (Murnen, 2015, p. 371).

Across the literature, with some exceptions (Bosson et al., 2009), "masculinity threats" are typically operationalized via a false feedback paradigm (Brady et al., 2018; Munsch & Willer, 2012; O'Connor et al., 2017; Vandello et al., 2008; Willer et al., 2013), whereby participants complete a questionnaire measuring some gender-related construct (e.g., masculine norm conformity) and are then randomized into conditions in which they receive fabricated feedback about their "performance" on the questionnaire. For example, male participants in a "masculinity threat" condition might receive "scores" suggesting they are "less masculine" or "more feminine" than the typical man. While this method has proven effective as a gender threat proxy, it is also subject to limitations, including the fact that not all men may feel threatened – some who are presumed to be threatened may receive feedback that aligns with their self-concept (e.g., men who view themselves as "more feminine"; Munsch & Willer, 2012).

Furthermore, while it is true that boys and men encounter overt gender threats in their everyday lives (e.g., “*Stop acting like a little girl*”), there are also more subtle, everyday experiences that can induce a similarly threatened sense of masculinity (see Bosson et al., 2009). As research has already shown that a threatened gender status can push men to justify or rationalize violence (Munsch & Willer, 2012; Vandello et al., 2008) or exhibit readiness to engage in actual aggressive behavior (Bosson et al., 2009), it is important to explore other situations and stimuli in men’s lives that have similar effects. The section below proposes one possible example in sports: ritualized behaviors within the male athlete sub-culture, often rooted in gendered norms and expectations, that might threaten one’s sense of manhood while potentially normalizing, or desensitizing them to, forms of violence and abuse.

“Locker Room (Rape) Culture”: Interpersonal Abuse via Hazing in Male Sport

The social power hierarchy within male sports teams is typically determined by seniority as well as athletic ability (Curry, 1991). However, discourse analysis within male locker rooms also suggests that this hierarchy (and perhaps its façade of “fraternal bonding”) is established and maintained through forms of harassment and abuse among men that celebrate sexual conquest, promote homophobia, and reinforce masculine hegemony (Curry, 1991). Such harassment can take many forms, including various rites of initiation, such as hazing practices (e.g., Anderson et al., 2012; Van Raalte et al., 2007; Waldron & Kowalski, 2009). Research has shown that hazing is widespread among college athletes, regardless of gender (Hoover, 1999; Johnson et al., 2018). These practices can range in severity, from the relatively harmless (e.g., scavenger hunts or dressing in silly costumes) to more extreme rites of passage, which can include physical acts of violence (e.g., tests of pain tolerance), antisocial or criminal behavior (e.g., destroying property), excessive alcohol consumption, and same-sex sexual activities ranging from kissing, to forced

masturbation, to anal rape or sodomy with inanimate objects (e.g., Anderson et al., 2012; Van Raalte et al., 2007; Waldron & Kowalski, 2009).

Hazing is often perceived by male athletes as an effective means of testing new recruits' "manhood", their ability to endure humiliation, discomfort, or pain for the sake of the team, and their willingness to embody compliance and docility around older players (Anderson et al., 2012). Simultaneously, there also seems to be a widespread belief that these practices – while often physically, sexually, and psychologically violating – promote a sense of belonging or team cohesion (Van Raalte et al., 2007). Nevertheless, contrary to what many athletes believe, more severe hazing practices have been shown to weaken rather than strengthen athletes' sense of team bonding (Van Raalte et al., 2007). Further, a recent study showed that, when some teams who had previously used hazing practices involving alcohol or sexualized behavior were exposed to more pro-social/non-violent forms of initiation (e.g., rock climbing or canoeing), participants reported a higher sense of team cohesion, a healthy shift in power dynamics, a reduction in team hierarchies, a humanizing effect for younger athletes, and a deepening of interpersonal relationships among teammates (Johnson & Chin, 2016). Furthermore, many of the athletes subsequently denounced the forms of hazing they had used in the past (Johnson & Chin, 2016).

Research has, thus far, explored forms of physical and psychological trauma that can result from severe hazing practices (e.g., Finkel, 2002). However, no studies to date have studied the role of hazing in the socialization of male athletes' attitudes toward sexual violence.

Theoretically, at least, it is important to consider the similarities between forms of abuse within locker room culture such as hazing and characteristics of rape culture (Johnson & Johnson, 2017), including (1) the normalization of coercion, force, and a disregard for consent, (2) the enactment of a power hierarchy via humiliation, dominance, or abuse, and (3) enduring attempts

in the surrounding social context or culture to downplay, justify, and rationalize violent behavior. Taken together, these overlaps raise important questions about the degree to which men's abusive behavior toward each other normalizes them into interpersonal violence – perhaps even a sense of entitlement with regard to how they treat other bodies.

Chapter 2: The Present Study

The current study sought to address ongoing gaps in the research on male athlete-perpetrated sexual violence (MASV), by exploring its contextual and psychosocial underpinnings, rather than simply studying whether it differs in frequency or severity from sexual violence perpetrated by other groups of men (see Brown et al., 2002; Caron et al., 1997; Humphrey & Kahn, 2000; Koss & Gaines, 1993; Smith & Stewart, 2003; Young et al., 2017). More specifically, this study explored dimensions of masculinity and forms of relational abuse among male athletes that might influence their sexist and sexually violent attitudes toward women. Given a longstanding adherence within masculinity research to cross-sectional methods (Addis et al., 2010; Whorley & Addis, 2006), there was also an identified need to design a study that integrated both “trait-like” (e.g., individual differences) and “state-like” (e.g., gender threat) understandings of how masculinity is experienced and navigated by men. Recent research on interaction effects between person-level manifestations of masculinity and situation-level masculinity threats supported this aim (Braly et al., 2018; Himmelstein et al., 2019; Parent & Cooper, 2019).

Finally, the current study largely suspends any assumption that different forms of male violence can or should be studied or understood in isolation. Despite calls for more integrated and holistic models of violence prevention for men (Fleming et al., 2015), research has rarely sought to draw empirical links between different forms of male violence (e.g., that which occurs between men and that which is perpetrated by men toward women). As such, while investigating whether hazing can perhaps function in similar ways to other forms of “masculinity threat” (e.g., Vandello & Bosson, 2008; Willer et al., 2013), the current study also explored possible

relationships between men's exposure to within-gender violence and their sexist and sexually violent attitudes toward women.

When it came to the experimental component of this research, for obvious reasons, it was ethical impermissible to directly expose male athletes to hazing activities. Instead, participants were randomly assigned to vignette conditions (cf., Munsch & Willer, 2012) depicting three different forms of violent and forced/non-consensual hazing in sport: (1) Forced nudity with physical/sexual touch between male athletes (henceforth referred to as "Touch"); (2) Forced nudity without touch ("Nudity"); and (3) Forced binge drinking ("Alcohol"). A fourth ("Control") vignette condition exposed participants to a non-violent and consensual/voluntary team building activity. Outcome variables of interest in the current study included rape myth acceptance, hostile sexism, and benevolent sexism. Conformity to masculine norms (Mahalik et al., 2003; Parent & Moradi, 2009) – four norms specifically (violence, power over women, being a sexual playboy, and heterosexual self-presentation) – served as both predictors and potential moderators in this study, to reflect presumably stable individual differences between men.

Finally, the extent to which participants rated a particular hazing condition favorably (personal favorability ratings) or believed peers would do so (perceived peer ratings) were also examined as separate potential moderators within experimental conditions. Drawing upon Social Norms Theory (Berkowitz, 2003; Cialdini & Trost, 1998; Waldron, 2012) – which underlies much of the research on conformity to masculine norms (Mahalik et al., 2003) – the hypotheses corresponding to these potential moderators were intended to reflect how individual attitudes and behaviors within a particular group are often influenced by the perceived attitudes and values of peers within the group.

Research Hypotheses

The current study had ten main hypotheses, corresponding to two different potential moderation models and organized below according to main effects, interaction effects, and the three dependent variables (rape myth acceptance, hostile sexism, benevolent sexism; see Figure 1 for a conceptual model of these relationships).

The first hypothesis builds on prior research evidence indicating that men tend to justify or rationalize violence as a means of restoring or reasserting their gender status when their masculinity is threatened (Bosson et al., 2009; Munsch & Willer, 2012; Parrot & Zeichner, 2008). Of note, the “gender threat” used in the current study (hazing vignettes) diverged from some of the methods used in prior research, most of which have involved giving participants false feedback about how they compare to other men after completing a masculinity-related measure. Nevertheless, hazing conditions were expected to function as a gender threat by making the precariousness of masculinity salient (Vandello et al., 2008). Further, research has shown that sexually violent attitudes (e.g., rape myth acceptance) can be influenced by other environmental stimuli (i.e., not involving false masculinity feedback), including studies that have exposed participants to video game content (Beck et al., 2012) or media headlines (Franiuk et al., 2008). As such, the first hypothesis in the current study concerned the main effect of hazing exposure on the three dependent variables of interest (rape myth acceptance, hostile sexism, benevolent sexism):

Hypothesis 1: Participants randomized to the abusive/non-consensual hazing conditions (Touch, Nudity, Alcohol) will report higher levels of subsequent (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism) than participants in the control condition (i.e., those exposed to a non-abusive and voluntary team-building activity).

Due to a lack of empirical support for this type of manipulation, no *a priori* predictions were made concerning differences between the three abusive hazing conditions (Touch, Nudity, Alcohol) across all hypotheses.

The next three sets of hypotheses (2a-d, 3a-d, 4a-d) concerned the main effect of different subscales of the Conformity to Masculine Norms Inventory-46 (CMNI-46; Parent & Moradi, 2009) the dependent variables of interest (rape myth acceptance, hostile sexism, benevolent sexism). These CMNI-46 subscales (violence, being a sexual playboy, power over women, heterosexual self-presentation) were selected based on prior evidence for how they significant predict RMA (Le et al., 2020; Locke & Mahalik, 2005) or sexism (Fox & Tang, 2014) among other sub-populations of men. For the sake of brevity, these four CMNI-46 subscales were grouped together in the hypotheses below and Figure 1, as these three variables were expected to respond/relate to the experimental manipulation and moderator in similar ways.

Hypothesis 2: Each of the four subscales of conformity to masculine norms – (a) violence, (b) power over women, (c) sexual playboy, and (d) heterosexual self-presentation – will positively and significantly predict levels of rape myth acceptance when controlling for experimental (hazing) condition.

Hypothesis 3: Each of the four subscales of conformity to masculine norms – (a) violence, (b) power over women, (c) sexual playboy, and (d) heterosexual self-presentation – will positively and significantly predict levels of hostile sexism when controlling for experimental (hazing) condition.

Hypothesis 4: Each of the four subscales of conformity to masculine norms – (a) violence, (b) power over women, (c) sexual playboy, and (d) heterosexual self-presentation –

will positively and significantly predict levels of benevolent sexism when controlling for experimental (hazing) condition.

Hypotheses 5-8 correspond to interaction effects between hazing exposure and conformity to different masculine norms. These hypotheses took into account recent evidence showing how “stable” measures of masculine ideologies can moderate the impact of an experimental manipulation (e.g., Hunt et al., 2013). Each of the hypotheses below outlines how group differences between mean scores for (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism) would vary along levels of masculine norm conformity (specifically, the norms of violence, being a sexual playboy, power over women, heterosexual self-presentation).

Hypothesis 5: Conformity to the masculine norm of violence will moderate the impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism, such that these effects will be stronger for individuals who are high in conformity to the masculine norm of violence and weaker for individuals who are not.

Hypothesis 6: Conformity to the masculine norm of power over women will moderate the impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism, such that these effects will be stronger for individuals who are high in conformity to the masculine norm of power over women and weaker for individuals who are not.

Hypothesis 7: Conformity to the masculine norm of being a sexual playboy will moderate the impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism, such that these effects

will be stronger for individuals who are high in conformity to the masculine norm of being a sexual playboy and weaker for individuals who are not.

Hypothesis 8: Conformity to the masculine norm of heterosexual self-presentation will moderate the impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism, such that these effects will be stronger for individuals who are high in conformity to the masculine norm of heterosexual self-presentation and weaker for individuals who are not.

Hypotheses 9 and 10 correspond to interaction effects between hazing exposure and how favorably participants rated the hazing activity to which they were exposed. There were two measures of “favorability ratings” used in this study: (1) the degree to which participants themselves rated the hazing activity favorably (“Personal-Favorability”) and (2) participants’ beliefs about how their peers would rate the hazing activity (“Peer-Favorability”; i.e., the proportion of all male NCAA athletes who would rate the activity favorably). It was predicted that athletes for whom abusive hazing has been normalized by peers would be more likely to rate these forms of hazing favorably and more amenable to their influence (see Social Norms Theory; Berkowitz, 2003; Waldron, 2012)

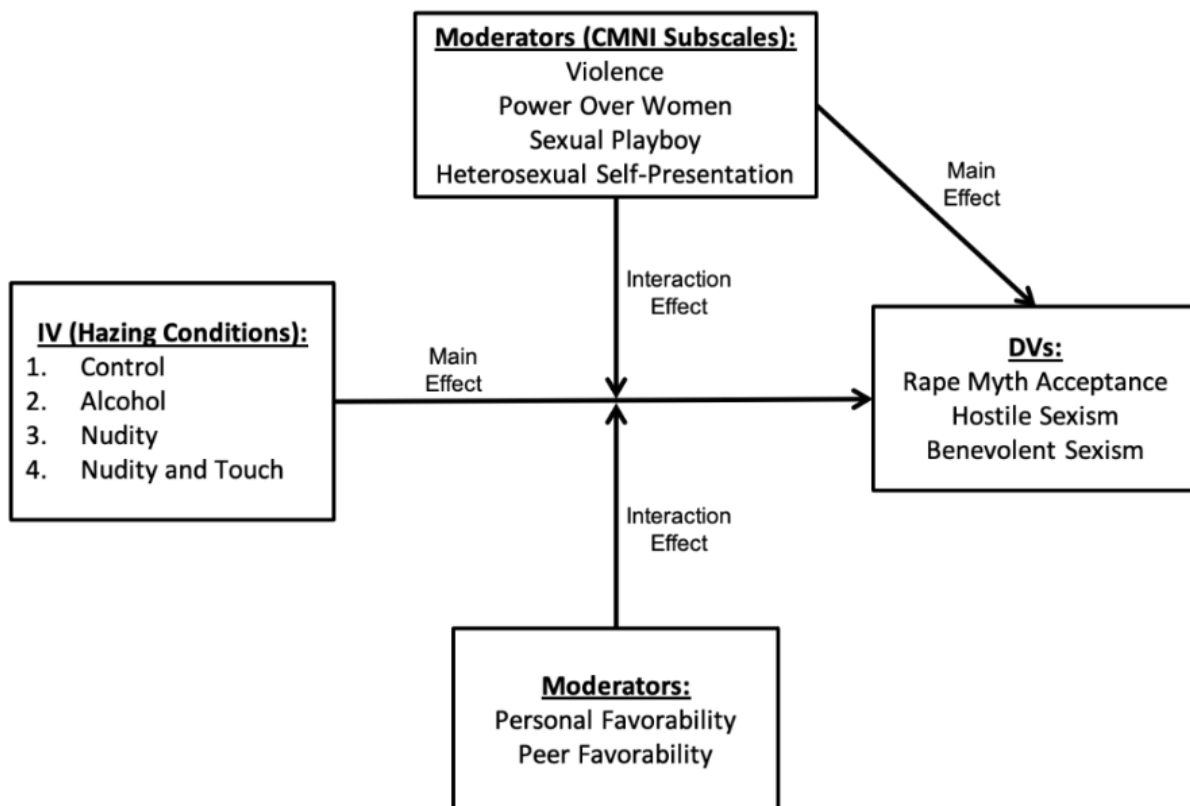
Hypothesis 9: Personal Favorability ratings will moderate the positive impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b) hostile sexism, and (c) benevolent sexism, such that these effects will be stronger for individuals who rate these hazing activities favorably and weaker for those who rate them unfavorably.

Hypothesis 10: Peer Favorability ratings will moderate the positive impact of abusive hazing exposure (Touch, Nudity, Alcohol) on (a) rape myth acceptance, (b)

hostile sexism, and (c) benevolent sexism, such that these effects will be stronger for individuals who believe their peers (male NCAA athletes) would rate these hazing activities favorably and weaker for those who believe peers would rate the activities unfavorably.

Figure 1.

Conceptual model of hypothesized relationships among variables of interest



Chapter 3: Method

Participants

Participants in this study were men or male-identifying, at least 18 years old, and NCAA Division I student-athletes. The sample was restricted to Division I athletes to reduce any potential error associated with the ways Division I institutions are traditionally different from Division II and III schools, including a greater number of athletic scholarships, significantly higher revenue produced through sport, and greater national prominence and visibility (Forbes et al., 2006). An *a priori* power analysis using G*Power v3 software (Faul et al., 2007) was conducted to determine the number of participants needed for multiple linear regression testing to reach statistical power of .80, using a medium effect size ($f^2 = 0.25$), an alpha level of $\alpha = 0.05$, and 7 predictors for the moderation analyses ultimately used in this study (three dummy-coded predictor variables for the four experimental conditions, one moderator variable, and three interaction variables between dummy-coded predictors and moderator). Results of the power analysis suggested a sample size of at least 237.

This study's final sample was slightly under the desired size (see summary of recruitment process in Procedure below), comprising 204 male student-athletes representing 16 different NCAA Division I institutions. Efforts were made to ensure that schools were representative in terms of size and geographic location. Schools were located across the United States in the following regions: northeast (one school), mid-Atlantic (five), southeast (two), Midwest (five), south (one), and west (three). Undergraduate enrollment ranged in size, with six schools having between 30,000 – 45,000 students, six schools having between 15,000 – 29,000 students, and four schools having between 2,500 and 14,000 students. Participants all self-identified as cisgender men and NCAA Division I student athletes, and they ranged in age from 18-25 years

old ($M = 20.58$, $SD = 1.30$). In terms of racial identity, a majority (79.9%) of participants identified as White, while 6.4% identified as multiracial, 4.9% identified as Black/African American, 2.9% identified as Asian/Asian American, and 0.5% identified as American Indian or Alaskan Native. Eleven participants did not disclose their racial identity. Overall, 16 participants (7.8% of the sample) also self-identified as Hispanic/Latinx. Participants' self-described ethnic identities (an open-ended demographic item) varied, including: European, Mexican-German, Japanese, Korean, South African, Austrian, English, German-French, Irish, Romanian, Polish, Serbian, Egyptian, Skandinavian, French-Canadian, Cuban, and Venezuelan American. Participants in the sample largely identified as heterosexual (94.1%), with 3.4% ($N = 7$) of participants identifying as gay and 1.0% ($N = 2$) identifying as bisexual (three participants did not report their sexual orientation). Six participants (2.9%) reported having a disability, 86.8% of participants were born in the United States, and 10.8% of participants were international students. Subjective social status – an individual's perceived standing within a social hierarchy – was measured using the McArthur Scale (Adler et al., 2000), which asks participants to indicate where they would place themselves along a 10-rung ladder representing where people stand in the United States in terms of money, education, and occupations (10 = highest). Participants' responses to this item ranged from 3 to 10 ($M = 6.71$, $SD = 1.60$).

Overall, 14.2% of participants were college freshmen, 21.6% were sophomores, 28.4% were juniors, and 29.4% were seniors. Eleven participants (5.4%) were graduate students who were competing as student-athletes in their final year of NCAA eligibility (due to a prior redshirt year) and two participants did not indicate their year. The sample represented 17 different NCAA sports: track & field or cross-country ($N = 52$; 25.5%), football ($N = 23$; 11.3%), swimming and diving ($N = 22$; 10.8%), wrestling ($N = 19$; 9.3%), baseball ($N = 15$; 7.4%), soccer ($N = 11$;

5.4%), rowing (N = 11; 5.4%), lacrosse (N = 10; 4.9%), basketball (N = 9; 4.4%), volleyball (N = 7; 3.4%), tennis (N = 6; 2.9%), gymnastics (N = 6; 2.9%), water polo (N = 5; 2.5%), ice hockey (N = 3; 1.5%), golf (N = 2; 1.0%), fencing (N = 2; 1.0%), and rugby (N = 1; .5%). Two participants were multi-sport athletes (football and rugby; football and track & field). Finally, 15 participants (7.4%) reported that they were a member of a fraternity in addition to being a student-athlete.

Procedure

Following Institutional Review Board approval, participants were recruited via several methods. Study recruitment occurred in two phases over the course of 10 months and was terminated when recruitment efforts were yielding no more than 1-2 participants per week. In the initial recruitment phase, recruitment emails were sent to athletic department staff (e.g., clinical sport psychologists and other mental health professionals) requesting them to distribute the survey link to athletes. Out of 16 NCAA Division I athletic departments contacted, only one agreed to disseminate the survey. Several departments did not respond to multiple requests. Some requested study materials for further review, but never responded after these materials were sent, despite multiple follow-up inquiries. Several departments did not wish to distribute the survey, often citing a desire to avoid over-burdening athletes with research requests. The initial recruitment phase yielded enough participants to complete a pilot study (N = 16), discussed in the next chapter.

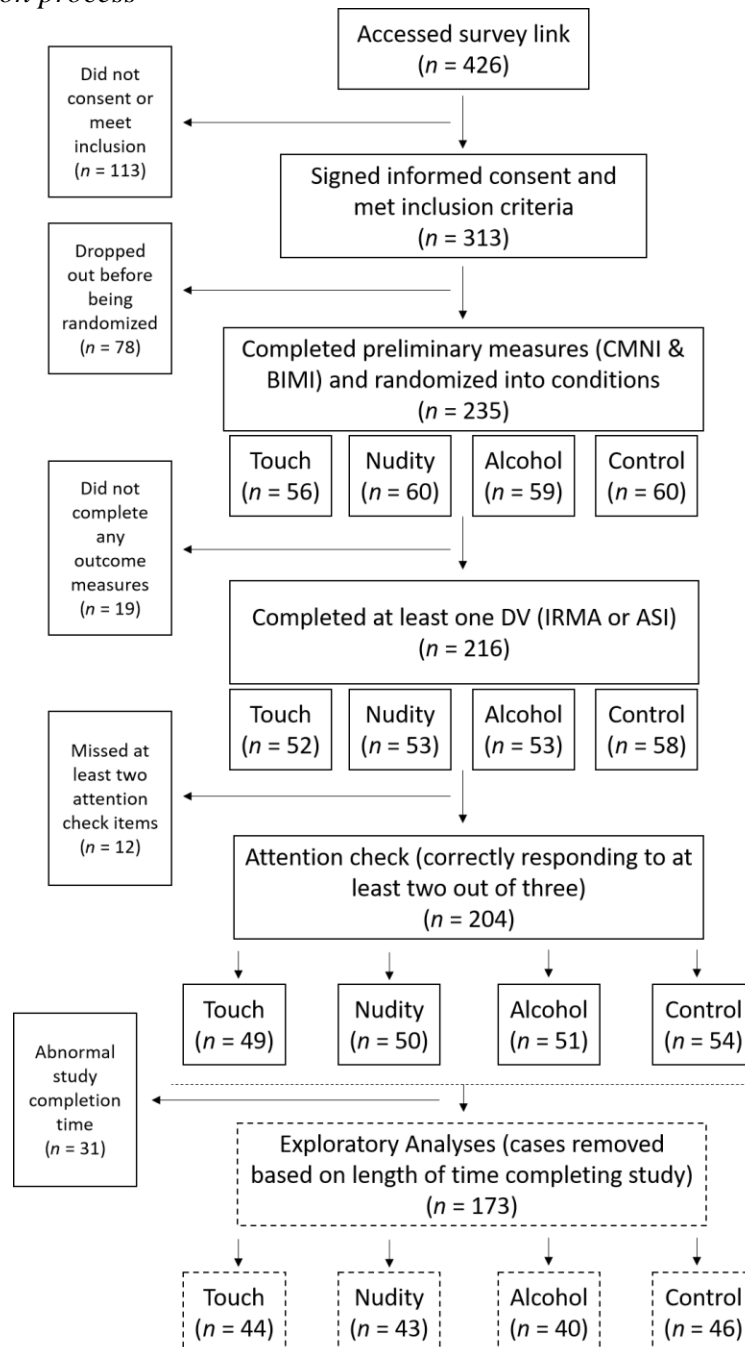
With follow-up IRB approval, the second method of recruitment occurred via mass emails distributed directly to student-athletes at other NCAA Division I institutions spread across the United States (excluding schools contacted in the initial phase of recruitment). More than 3,800 email addresses were individually collected by cross-checking team rosters from athletic

department websites and searching for student-athletes via online student directories at schools where such directories are publicly accessible. Prior to conducting this search or sending any emails, each school's IRB office was contacted (and sent the initial IRB approval letter) to determine if further review and approval was needed. Some schools required an additional review process and approved recruitment, while others confirmed that no additional review was required, as IRB approval at the PI's institution had been obtained and the student directory email addresses were publicly accessible. Student-athletes received emails inviting them to participate in a research study on "college athletes' beliefs and attitudes toward hazing in sport, with an opportunity to win one of ten \$50 Amazon gift cards." They were informed that participation was voluntary and that they were permitted to drop out of the study at any time.

Recruitment emails were sent in several phases to the pool of over 3,800 student-athlete emails with several reminder emails across the span of 8 months. A large majority of recruitment and data collection occurred during the global COVID-19 pandemic – a noteworthy limitation discussed further below. In total, 426 individuals clicked on the survey link, and 313 completed the informed consent and met study inclusion criteria (i.e., at least 18 years old, male-identifying, student-athlete). A number of participants ($n = 78$) only completed a measure or two and dropped out of the study before they were randomized into vignette conditions. The remaining participants ($n = 235$) were randomized, but 19 individuals did not complete any of the outcome variable measures, making it unclear as to whether they closed out of the survey before or after actually reading the vignette. The remaining participants ($n = 216$) included those who remained in the study long enough to be randomized into conditions and complete at least one outcome measure. Three attention check items were included throughout the survey, and 12 additional participants were removed because they failed to answer at least two out of three attention check

items correctly. This yielded a final sample of 204 participants (see Figure 2 for participant retention process). Of note, exploratory analyses, discussed at the end of Chapter 4, re-tested hypotheses after further removal of some participants who appeared to take an abnormal length of time to complete the study.

Figure 2.
Participant retention process



Upon receiving the recruitment email, student-athletes who wished to participate were instructed to click on a Qualtrics survey link, the first page of which was the study's informed consent document. Some minor deception was used in the email and informed consent, as participants were not initially aware of the study's additional focus on attitudes toward sexual violence. At the conclusion of the study, participants were fully debriefed about the study's purpose and deception rationale. They were also encouraged to contact their school's counseling/mental health services if they experienced any heightened psychological distress as a result of participating in the study, and they were provided with phone numbers to various hotlines (e.g., National Suicide Lifeline; Rape, Sexual Assault, Abuse, and Incest National Network). Finally, participants were given the option at debriefing to request that all of their data be removed from data analysis. No such requests were made.

After reviewing informed consent and agreeing to participate in the study, participants completed a measure of conformity to masculine norms (Mahalik et al., 2003) and a measure of social desirability (Blasberg et al., 2014). They were then randomly assigned to one of four experimental vignette conditions. Each of the vignettes depicted a hazing or initiation activity that took place in a locker room (see Vignettes below). After reading the vignette, participants responded to several "hazing appraisal" items, which were included in the current study for two reasons: (1) to prolong participants' cognitive and emotional engagement with the vignette content (cf. Franiuk et al., 2008); and (2) to assess participants' subjective perceptions of the scenario they read, as well as their perceptions of how their peers (i.e., other NCAA male college athletes) would appraise the scenario. They were also asked to rate the "believability" of the scenario they read.

Following the post-vignette “hazing appraisal” items, participants were then administered a measure of state affect (Watson et al., 1988), as well as measures of rape myth acceptance (McMahon & Farmer, 2011) and hostile and benevolent sexism (Glick & Fiske, 1996). These final two measures (rape myth acceptance and sexism) were counterbalanced to allow for controlling for order effects. After completing all post-vignette measures, participants responded to a set of demographic items, including age, race/ethnicity, gender identity, sexual orientation, disability status, fraternity membership (Y/N), social class, and nature of sport participation. Participants were then fully debriefed and given the option to click on a separate survey link, where they could enter their email address for the gift card raffle.

Vignettes

The hazing content in these vignettes was drawn from prior research on violent and non-violent hazing practices in sport (e.g., Van Raalte et al., 2007; Waldron, 2015), as well personal and anecdotal experience of the lead researcher (a former Division I student-athlete), and an online media search of sport-related hazing incidents that have been reported in recent years. After writing the initial vignettes, the lead researcher solicited qualitative feedback on them from two of the lead researcher’s colleagues (also former Division I athletes), who rated vignettes based on the degree to which each hazing scenario was realistic and understandable. Minor revisions were made according to their feedback. A small pilot study (outlined below) was conducted prior to primary data collection to test each vignette with current student-athletes.

Prior to reading their respective vignette, participants were instructed to “*imagine yourself as an incoming freshman athlete on this team, and imagine that you are participating in the activity described below.*” The beginning of each vignette was identical in content and length (101 words):

After being recruited out of high school, you arrive on college campus for preseason as a freshman student-athlete. Several days into preseason, the team captain (a senior) texts you and the other freshmen, telling you to come to the locker room late one evening for “team-building activities.” Upon your arrival, you discover that the rest of the team has already gathered for an “annual tradition.” The captain begins talking to you and the other freshmen: “We gathered you guys without the coaches because we think it’s important to do some team building on our own before the season starts,” he says.

The second half of each vignette was also the same length (156 words), arranged in a similar format, and had a similar ratio of descriptive content and quotes (see Appendix D). Slight differences in content constituted the experimental manipulation (a different hazing or “team bonding” scenario described by the team’s captain). The three experimental conditions all involved forced (non-voluntary or non-consensual) participation and different forms of abusive hazing (nudity in front of peers, nudity with physical/sexual touch, and binge drinking). The fourth vignette depicted a voluntary hazing or “team bonding” activity with non-abusive content.

The first vignette (“Forced Nudity and Touch”) involved an activity in which freshmen were told to “*strip down naked*” and pair up with each other. They were then given razors and instructed to shave each other’s genitals, while older players shouted insults at them and mocked their weight and penis size. The second vignette (“Forced Nudity [without touch]”) depicted freshmen being told to “*strip down naked*” and sing the school’s fight song in pairs, while older players shouted insults and commented on their weight and penis size. The third vignette (“Forced Alcohol”) involved an activity in which freshmen are told to prove their ability to “*maintain the team’s reputation for throwing the best parties on campus.*” The freshmen are instructed to pair up and play drinking games with beer, while simultaneously attempting to finish a bottle of vodka as a pair. To accentuate the forced or non-consensual nature of these three hazing conditions, at the end of each vignette, freshmen were also told by the team captain: “*Don’t even think about complaining or sitting out. We all had to do this as freshmen, and you*

don't want to be known as 'soft' your whole four years here." Finally, the fourth vignette – the control condition – involved a voluntary, non-abusive “team bonding” activity: In this scenario, after noting the challenges of adjusting to college, the team captain offered freshmen the opportunity to participate in a discussion with older players, who would share their own experiences in transitioning to college, including mistakes they made and lessons they learned (e.g., alcohol or drug abuse, staying academically eligible). This vignette was specifically designed to depict an attenuated power hierarchy within the team, as well as a “pro-social” form of team bonding.

Measures

Conformity to masculine norms. The Conformity to Masculine Norms Inventory-46 (CMNI-46; Parent & Moradi, 2009) is a shortened version of the CMNI (Mahalik et al., 2003), a scale developed to measure the extent to which an individual conforms to dominant cultural gender-based expectations for men in the United States. The CMNI integrates cognitive, affective, and behavioral dimensions of an individual's conformity to masculine norms, and it accounts for a wider range of conformity than previous measures (Mahalik et al., 2003). The original CNMI comprised 94 items, grouped within 11 subscales. Parent and Moradi's (2009) follow-up confirmatory factor analysis of the original CMNI resulted in the retention of 46 items and nine of the original 11 subscales, including Emotional Control, Winning, Being a Sexual Playboy, Violence, Self-Reliance, Risk-Taking, Power Over Women, Primacy of Work, and Disdain for Homosexuals (renamed in the CNMI-46 as “Heterosexual Self-Presentation”). Sample items of the CNMI-46 include “*It would be awful if people thought I was gay*” (Heterosexual Self-Presentation), “*I would feel good if I had many sexual partners*” (Sexual Playboy), and “*Sometimes violent action is necessary*” (Violence). Respondents indicate their

level of agreement with each item on a 4-point Likert-type scale (1 = *Strongly Disagree* to 4 = *Strongly Agree*). Some CMNI-46 items are reverse-scored. Higher CMNI-46 scores reflect greater conformity to traditional masculine roles. Original Cronbach's alpha estimates of internal consistency for the CMNI-46 were sufficient, ranging from $\alpha = .77$ to $.91$ (Parent & Moradi, 2009).

Original scale development studies and subsequent research using either the CMNI or the CMNI-46 have provided evidence for test-retest reliability (Mahalik et al., 2003) and convergent and discriminant validity (Parent & Moradi, 2009; Parent et al., 2011). A recent reliability generalization of the CMNI also found the scale to be well-suited for research on undergraduate men and athletes (Kivisalu et al., 2015). Scores for the CMNI are calculated by averaging items within each subscale. While prior use of the CMNI and CMNI-46 has at times included total and subscale scores, recent psychometric evidence has led scholars to caution against use of the total scores, instead encouraging use of theoretically grounded subscales (Hammer et al., 2018; Parent & Moradi, 2011). As such, only four subscales were included in the current study's hypotheses and main analysis (Violence, Being a Sexual Playboy, Power Over Women, and Heterosexual Self-Presentation), based on prior research linking these scales to the current study's outcome variables of interest (Cole et al., 2020; Le et al., 2020; Locke & Mahalik, 2003; Fox & Tang, 2014). For the current study, reliability coefficients (Cronbach's alpha) for these four subscales were all sufficient: Violence ($\alpha = .83$), Power Over Women ($\alpha = .80$), Sexual Playboy ($\alpha = .75$), and Heterosexual Self-Presentation ($\alpha = .88$).

Social desirability or impression management. The Communal Management (CM) subscale of the Bidimensional Impression Management Index (BIMI; Blasberg et al., 2014) was developed to measure a form of socially desirable responding known as communal (or

moralistic) management, or the degree to which individuals are prone to “denying socially deviant impulses and claiming pious attributes” as a means of managing others’ impressions of them (p. 523). The full BIMI scale comprises two dimensions – the second reflecting agentic management (AM) – and 20 total items (10 for each subscale). Only the BIMI-CM subscale was used in the current study, given the theoretical relevance of denying “socially deviant impulses” related to sexual violence. Respondents rate each BIMI item on a 7-point scale (1 = *strongly disagree* to 7 = *strongly agree*), and sample BIMI-CM items include “*I don’t gossip about other people’s business*” and “*I have done things that I don’t tell other people about*” (reverse-scored). Tests of internal consistency showed sufficient reliability coefficients for CM scores ($\alpha = .75 - .91$; Blasberg et al., 2014). Consistent with hypotheses related to construct validity, BIMI-CM scores have been shown to positively and significantly correlate with trait conscientiousness (Blasberg et al., 2014). Internal consistency analysis showed the reliability coefficient (Cronbach’s alpha) for the BIMI-CM in the current study was slightly low ($\alpha = .60$).

Hazing appraisal. Following random assignment and exposure to their respective vignette condition, participants responded to five post-vignette “hazing appraisal” items designed to prolong their engagement with the vignette content while also assessing their subjective perception of each hazing scenario and beliefs about how other athletes would perceive the scenario. Two items assessed individuals’ *personal* reaction to the hazing scenario they read: “To what extent do you (1) *approve of this activity as a form of ‘team bonding’?*” and (2) “*consider this activity to be harmful?*” (item #1 was anchored to a 5-point Likert type scale from 1 = *Strongly disapprove* to 5 = *Strongly approve*; item #2 was anchored to a 5-point Likert type scale from 1 = *Not at all harmful* to 5 = *Extremely harmful*). The other two items were designed to assess participants’ perceptions of *normative* attitudes toward the hazing scenario:

“Approximately what proportion of all NCAA male student-athletes do you think would (3) *approve of this activity as a form of ‘team bonding’?*” and (4) *“consider this activity to be harmful?”* (both items were anchored to a 5-point Likert-type scale from 1 = *Almost none* to 5 = *Almost all*). For analyses, the first two items were averaged to yield a “Personal Favorability” rating, after the second item was reverse-scored. The latter two items were averaged to yield a “Peer Favorability” rating, after the fourth item was reverse scored. Finally, participants were asked to rate the degree to which they felt the hazing scenario they read was “believable” (i.e., they could imagine it happening on a real college team, even if it wasn’t their own team). Believability responses were anchored to a 4-point Likert-type scale (1 = *Strongly Disagree* to 4 = *Strongly Agree*). Reliability coefficients for both favorability scales were sufficient (Peer favorability $\alpha = .91$; Personal Favorability $\alpha = .94$.)

State affect. The Positive and Negative Affect Scale (PANAS; Watson et al, 1988) is a 20-item measure of state affect or mood, whereby Positive Affect (PA; 10 items) “reflects the extent to which a person feels enthusiastic, active, and alert,” and Negative Affect (NA; 10 items) “is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness” (p. 1063). The PANAS is administered as a list of 20 words (e.g., interested, excited, scared, nervous, ashamed) that respondents rate using a 5-point Likert-type response scale from 1 = *Very slightly or not at all* to 5 = *Extremely*, corresponding to the extent to which someone feels this way within a current time frame. Time-frame instructions can be modified to assess respondents’ affect/mood in the present (“*to what extent you feel this way right now, that is, at the present moment*”), as well as in the past few days, week, year, etc. Reliability coefficients

for both PANAS subscales in the current study were sufficient (Positive Affect $\alpha = .91$; Negative Affect $\alpha = .90$.)

Rape myth acceptance. The updated Illinois Rape Myth Acceptance (IRMA) scale (McMahon & Farmer, 2011) is a 19-item measure of an individual's endorsement or acceptance of modern and subtle rape myths. Participants anchor their responses to a 5-point Likert-type scale (1 = *Strongly Disagree* to 5 = *Strongly Agree*), and higher scores equate to higher levels of rape myth acceptance. Sample items include “*When girls go to parties wearing slutty clothes, they are asking for trouble,*” and “*Rape happens when a guy's sex drive gets out of control.*”

The updated and shortened IRMA was developed as a modified version of the original 45-item IRMA (Payne et al., 1999), which comprised seven subscales and, at the time, was “arguably the most reliable and psychometrically demonstrated rape myth scale to date” (McMahon & Farmer, 2011, p. 72). Evidence for construct and predictive validity with the original IRMA scale has been demonstrated through positive significant associations with sex role stereotyping, hostile attitudes toward women, and acceptance of interpersonal violence (Payne et al., 1999). Nevertheless, the scale's developers recognized that measures of rape myths are “necessarily time and culture bound” (Payne et al., 1999, p. 61) and, therefore, often rely heavily upon colloquial language and slang. Furthermore, given the increased focus on rape prevention over the years, McMahon and Farmer (2011) identified a need to assess one's acceptance of more subtle or “socially acceptable” rape myths. Through a multi-step revision process, they updated the IRMA to emphasize subtle rape myths with language more reflective of up-to-date rape-related discourse on college campuses (e.g., words such as “men” and “women” were replaced with “guys” and “girls”). The revisions resulted in retention of four out of the original seven IRMA subscales (“She Asked for It,” “It Wasn't Really Rape,” “He Didn't

Mean To,” and “She Lied”) that were deemed to be theoretically relevant. In the course of exploratory structural equation modeling and confirmatory factor analysis with a sample of 951 undergraduate students, McMahon and Farmer (2011) found that the subscale “He Didn’t Mean To” was made up of two factors: one that generally excuses men’s perpetration of rape and one that excuses it on the grounds of intoxication. Therefore, the final “updated IRMA” comprises five subscales: (1) “She Asked For It,” (2) “It Wasn’t Really Rape,” (3) “He Didn’t Mean To,” (4) “He Didn’t Mean To (Intoxication sub-factor),” and (5) “She Lied.” Cut: The overall internal consistency estimate for the original IRMA was found to be .93, with subscale coefficients ranging from .74-.84 (Payne et al., 1999). Reliability coefficients for McMahon & Farmer’s (2011) updated total scale score ($\alpha = .87$) and the five subscales ($\alpha = .64 - .80$) were found to be sufficient. The only Cronbach’s alpha that fell below .70 was tied to the newly developed sub-factor (“Intoxication”). In addition to prior evidence for construct validity for other versions of the IRMA, McMahon and Farmer (2011) noted that, while individual items did not function differentially across gender, men’s higher overall endorsement of rape myth acceptance in the updated scale provided additional evidence for criterion validity. In a later study, McMahon (2015) found that athletes endorsed slightly higher scores than non-athletes on the updated IRMA, but noted that these differences only existed for two out of the five subscales and were “minor.” As the current study was interested in rape myth acceptance broadly, only the total IRMA score was used. Internal consistency analysis showed the reliability coefficient (Cronbach’s alpha) for the IRMA in the current study was sufficient ($\alpha = .89$).

Hostile and Benevolent Sexism. The Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996) is a 22-item scale designed to measure sexism as a multidimensional form “of prejudice marked by deep ambivalence, rather than a uniform antipathy, toward women” (p.

491). Phrased another way, the developers of the ASI noted that the scale “is intended to capture the ambivalent sentiments expressed in the oft-heard lament of men about women: ‘Can’t live with them, can’t live without them.’” (Glick & Fiske, 1996, p. 504).

The ASI comprises two subscales (11 items each) – hostile sexism and benevolent sexism. While hostile sexism (HS) reflects traditional conceptualizations of sexism as different forms of hostility or antipathy toward women, Glick and Fiske (1996) defined benevolent sexism (BS) as “a set of interrelated attitudes toward women that are sexist in terms of viewing women stereotypically and in restricted roles but that are subjectively positive in feeling tone (for the perceiver) and also tend to elicit behaviors typically categorized as prosocial (e.g., helping) or intimacy-seeking (e.g., self-disclosure)” (p. 491). In other words, BS may seem positive or complimentary on the surface, but its consequences are, in fact, damaging toward women because these ideologies are still rooted in traditional gender stereotypes and masculine dominance. A sample HS item in the ASI is “*Most women fail to appreciate fully all that men do for them,*” while a sample BS item is “*Many women have a quality of purity that few men possess.*” Responses to ASI are anchored to a 6-point Likert type scale ranging from 0 (*disagree strongly*) to 5 (*agree strongly*), and after reverse-scoring appropriate items, higher scores reflect higher levels of hostile and benevolent sexist attitudes. Evidence for convergent, discriminant, and predictive validity for the ASI (total and subscale scores) has been documented through significant relationships with other measures of sexism, an individual’s recognition of discrimination, and stereotypes about women (Glick & Fiske, 1996). As was the case with the IRMA, further construct validity evidence was established via men’s significantly higher endorsement of HS and BS (Glick & Fiske, 1996; Masser & Abrams, 1999). Internal consistency

analysis showed the reliability coefficients (Cronbach's alpha) for both ASI subscales in the current study were sufficient: Hostile Sexism ($\alpha = .91$); Benevolent Sexism ($\alpha = .74$).

Chapter 4: Results

Pilot Study (Vignette Testing)

A smaller, separate sample of participants ($N = 16$) was initially recruited to pilot test the vignettes and test the main study's experimental manipulation. The pilot sample was recruited from two similarly-sized (30,000-36,000 undergraduate enrollment) NCAA Division I schools – one on the west coast of the U.S. and one on the east coast. One pilot study participant was removed for incorrectly responding to an attention check item. The final pilot study sample ($N = 15$) comprised all cisgender male NCAA Division I athletes, ranging in age from 19 to 22 years old ($M = 20.07$, $SD = 1.22$). Most of the sample (86.7%) self-identified as heterosexual, with two participants (13.3%) identifying as gay. With respect to racial identity, a slight majority of pilot study participants self-identified as White (53.3%), with 20.0% identifying as multiracial, 13.3% identifying as Hispanic or Latinx, 6.7% identifying as Black/African American, and 6.7% identifying as another race (e.g., “Persian”). Participants' self-described ethnic identities included Puerto Rican, Italian, Mexican, American, and “fluid.” One participant reported having a disability, and one reported having been born in a country other than the United States. None of the pilot study participants were international students. The pilot sample comprised three freshmen, six sophomores, four juniors, and two seniors, and it reflected a range of sports, including baseball (20.0%), track and field or cross country (20.0%), swimming and diving (20.0%), golf (26.7%), football (6.7%), and lacrosse (6.7%).

To test the degree to which vignette content was accurately perceived, differentiated, and believable, the pilot-study participants were randomly assigned to one of the four conditions: forced nudity and touch (“Touch”), forced nudity (“Nudity”), forced binge drinking (“Alcohol”) and control (“Control”). After reading their respective vignette, participants responded to a series

of items (anchored to a 4-point Likert scale, from 1 = *strongly disagree* to 4 = *strongly agree*) designed to assess their understanding of, and reactions to, the hazing condition to which they were assigned. Five of these items were content-related, designed to assess the degree to which participants accurately perceived and differentiated between the manipulation-relevant vignette content. One item asked whether the scenario depicted in the vignette involved forced (versus voluntary) participation in the hazing activity. Three items assessed the type of hazing depicted in the vignette (i.e., forced touch, forced nudity, forced binge drinking). One item was administered as a “control/filler” content item (i.e., “*Athletes in this scenario were told to participate in a scavenger hunt*”). Finally, participants were also asked to rate the “believability” of the vignette and respond to one attention check item.

A summary of these results can be viewed in Table 1. For each vignette condition, mean scores for the items relevant to that particular condition were all greater than or equal to 3.00 (*Agree*), while mean scores for items irrelevant to that condition were equal to or less than 2.00 (*Disagree*). Mean responses to the filler item were all less than 2.00. For example, in response to the item “*The athletes in this scenario were forced to be naked in front of their peers,*” participants in the “Touch” and “Nudity” conditions – both of which involved forced nudity – had mean response scores of 3.25 and 3.67 respectively, while participants in the alcohol and control groups had mean response scores of 1.00 and 1.40 respectively for this item. Similarly, participants in the “Alcohol” condition had a mean score of 3.33 in response to the item “*The athletes in this scenario were forced to consume large amounts of alcohol,*” while participants randomized to the other three conditions had mean scores less than or equal to 1.75.

Collectively, pilot study results indicated that manipulation-relevant information in each condition was accurately perceived, and that conditions were accurately differentiated from each

other. Of note, two conditions (Forced Touch/Nudity; Control) received average “believability” scores slightly below 3.00. However, as these were the most and least “severe” types of hazing and standard deviations indicated a relatively wide range of responses, it is possible that the partially subjective nature of a “believability” assessment impacted the scores. Based on collective evidence from pilot testing, no further revisions were made to the vignette conditions.

Table 1.
Vignette pilot testing

Item	Hazing Condition			
	Touch	Nudity	Alcohol	Control
	(<i>n</i> = 4)	(<i>n</i> = 3)	(<i>n</i> = 3)	(<i>n</i> = 5)
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
1. In the scenario you read, athletes were told that they had to participate (i.e., they were NOT given the option to “sit out”).	3.25 (0.50)	3.00 (0.00)	3.00 (1.00)	1.40 (0.55)
2. The athletes in this scenario were forced to touch each other.	3.25 (0.50)	2.00 (1.00)	1.67 (0.58)	1.40 (0.89)
3. The athletes in this scenario were forced to be naked in front of their peers.	3.25 (0.50)	3.67 (0.58)	1.00 (0.00)	1.40 (0.89)
4. The athletes in this scenario were forced to consume large amounts of alcohol.	1.75 (0.50)	1.67 (0.58)	3.33 (0.58)	1.20 (0.45)
5. The athletes in this scenario were asked to do a scavenger hunt (<i>Filler Item</i>).	1.75 (0.50)	1.33 (0.58)	1.33 (0.58)	1.20 (0.45)
6. This scenario was believable (i.e., you could imagine something like this happening on a real college sports team).	2.50 (1.29)	3.00 (1.00)	3.67 (0.58)	2.60 (0.89)

Note. *N* = 15

Main Study

Data from the main study were largely analyzed via independent samples t-tests, one- and two-way ANCOVAs, and multiple linear regression using hierarchical modeling in SPSS v27.0 software, while the PROCESS v3.5 macro (Hayes, 2017) was used to test any significant omnibus/interaction effects (e.g., moderation). A significance threshold was set at $\alpha = .05$. To account for a multicategorical predictor variable (hazing condition), dummy/indicator coding was employed, with the Control condition (i.e., voluntary, non-violent hazing) set as the

reference group, leaving three dummy variables corresponding to the three experimental conditions (Alcohol, Nudity, and Touch). Given the administration of the conformity to masculine norms inventory (CMNI) prior to random assignment, this variable was treated as a continuous independent variable and moderator throughout the analyses, while dummy-coded experimental condition was also treated as a categorical independent variable. The communal management subscale of the bidimensional impression management index (BIMI) was included in all regression models as a covariate to control for socially desirable responding. Dependent variables included rape myth acceptance (RMA), hostile sexism (HS), and benevolent sexism (BS).

Data Cleaning and Preparation

Excluding demographic variables, the variables of interest in the current study had very little missing data. Across all study items, missing data percentages ranged from 0.5% to 1.0%. A missing data analysis using Little's missing completely at random (MCAR) test was conducted and was not significant, $\chi^2(565, N = 204) = 592.54, p = .20$, indicating that any missing data were random. Overall, only five participants out of 204 (2.5%) were missing any data, and three of those cases were missing responses to two or fewer items. The other two cases corresponded to participants who failed to complete any items for one of the dependent variable questionnaires (either the Illinois Rape Myth Acceptance Scale or the Ambivalent Sexism Inventory). Due to the small number of missing data points, pairwise deletion was used throughout analyses to handle missing data.

Assumptions for ordinary least squares (OLS) regression (linearity, normality, multicollinearity, and homoscedasticity) were assessed. The linearity assumption was met upon inspection of matrix scatterplots for all three dependent variables (RMA, HS, BS). To test

normality, data residuals were inspected for skewness and kurtosis. Skewness values across the four experimental groups for all three dependent variables (RMA, HS, BS) all fell between the recommended -1.0 and 1.0 (ranging from -.30 to .47), and kurtosis values fell between -3.0 and 3.0 (ranging from -.92 to .73), indicating that distributions approximated normality (Cohen et al., 2013). The Shapiro-Wilk test of normality was conducted. Across the full data file, the Shapiro-Wilk test statistics were significant for one dependent variable (RMA), $W(203) = .985, p = .03$ and non-significant for the other two dependent variables (HS, BS). This suggests that the distribution of RMA scores across the full sample did not meet the normality assumption. However, OLS regression is generally robust to minor violations of normality (Hayes, 2017). The Central Limit Theorem posits that distributions approximate normality as sample sizes increase, and with a sufficiently large sample size ($N > 50$), deviations from normality will not have a large impact on the results. Lastly, tests of non-normality *within* groups for each dependent variable (RMA, HS, and BS) were all non-significant (all p-values $> .13$), indicating that distributions within randomized hazing condition groups approximated normality.

Multicollinearity was assessed by examining correlations between independent variables, none of which exceeded a Pearson's r-value of .7, as well as VIF statistics, none of which exceeded 3.0, indicating that multicollinearity was not a concern. Homoscedasticity was assessed across all three dependent variables (RMA, HS, and BS) via Levene's test and by inspecting scatterplots with the standardized predicted values on the x-axis and standardized residual values on the y-axis. None of these plots exhibited a "fanned" shape, and Levene's test of homogeneity of variance for each dependent variable across groups was non-significant, suggesting that heteroscedasticity was also not a concern. Given this evidence that assumptions of multivariate regression were largely met, no transformations were made to the data.

Lastly, data were assessed for outliers using boxplot inspections, standard residual scores, and Cook's distance. Two cases were identified via boxplots as potential outliers for the dependent variables rape myth acceptance and benevolent sexism. However, standard residuals for these cases did not exceed the recommended threshold of absolute value 3.0, and Cook's distance values did not exceed .06, suggesting that these cases did not exert a great deal of influence on the regression model (Cohen et al., 2013). As such, these cases were retained for all analyses.

Preliminary Analysis: Descriptives, Randomization/Manipulation Check, and Correlations

Table 2 presents descriptive statistics for the four experimental conditions across all study variables, including: different subscales of the first set of moderator variables (conformity to masculine norms), the second set of moderator variables (favorability ratings), and the three outcome variables (RMA, HS, and BS). The favorability ratings reflect the degree to which participants rated the hazing condition favorably (personal favorability) and the degree to which they believed other NCAA athletes would rate the condition favorability (peer favorability).

While random assignment was used to minimize differences between groups, a series of one-way ANOVA tests were also conducted to determine the degree to which randomization was successful. Table 3 presents the results of these analyses for the following baseline (pre-vignette) measures: four CMNI subscales (violence, power over women, sexual playboy, heterosexual self-representation), and impression management. None of the tests were significant (all p-values > .22), indicating that randomization was effective in minimizing differences across groups for conformity to masculine norms and impression management variables.

Table 2.
Descriptive statistics for study variables across four conditions

		Hazing Condition				
	Measure	Range for Full Sample (<i>N</i> = 204) (Possible Range)	Touch (<i>n</i> = 49) <i>M</i> (<i>SD</i>)	Nudity (<i>n</i> = 50) <i>M</i> (<i>SD</i>)	Alcohol (<i>n</i> = 51) <i>M</i> (<i>SD</i>)	Control (<i>n</i> = 54) <i>M</i> (<i>SD</i>)
Pre-Vignette	1. Violence	1.17-4.00 (1-4)	2.63 (.49)	2.75 (.59)	2.70 (.55)	2.62 (.49)
	2. POW	1.00-3.50 (1-4)	1.61 (.47)	1.66 (.60)	1.71 (.49)	1.55 (.51)
	3. Playboy	1.00-3.25 (1-4)	1.98 (.62)	2.10 (.54)	2.03 (.60)	1.94 (.62)
	4. Hetero	1.00-4.00 (1-4)	2.44 (.60)	2.39 (.72)	2.37 (.65)	2.28 (.67)
	5. BIMI	1.90-6.10 (1-7)	3.63 (.91)	3.46 (.65)	3.51 (.80)	3.65 (.78)
Post-Vignette	6. PersonalFav	1.00-5.00 (1-5)	1.53 (.78)	2.00 (.94)	2.20 (.87)	4.37 (.98)
	7. PeerFav	1.00-5.00 (1-5)	1.97 (.92)	2.24 (.78)	2.74 (1.01)	4.41 (.84)
	8. Pos. affect	1.00-4.80 (1-5)	2.78 (.99)	2.82 (.95)	2.80 (.88)	3.20 (.84)
	9. Neg. affect	1.00-4.70 (1-5)	1.66 (.74)	1.74 (.80)	1.52 (.65)	1.55 (.62)
	10. Rape myth	1.00-3.84 (1-5)	2.10 (.62)	2.14 (.65)	2.20 (.56)	2.05 (.53)
	11. HS	1.00-5.64 (1-6)	2.96 (.96)	3.21 (1.17)	3.20 (.91)	2.94 (1.04)
	12. BS	1.45-5.73 (1-6)	3.15 (.64)	3.32 (.86)	3.29 (.81)	3.39 (.56)

Note. *N* = 204; First four rows correspond to subscales of the Conformity to Masculine Norms Inventory-46; POW = Power Over Women; Playboy = Sexual Playboy; Hetero = Heterosexual Self-Presentation; BIMI = Communal Management subscale of the Bidimensional Impression Management Index; PersonalFav = Personal Favorability rating; PeerFav = Peer Favorability rating; Pos. affect = Positive Affect; Neg. affect = Negative Affect; Rape myth = Rape Myth Acceptance; BS = Benevolent Sexism; HS = Hostile Sexism

To build on evidence from the pilot study related to the efficacy of the experimental manipulation, the personal and peer favorability ratings, a single believability item, and measures of positive and negative affect were examined via another series of one-way ANOVAs to assess differences across conditions. Visual inspection of descriptive statistics displayed in Table 2 suggested that there were potentially significant differences in how favorably participants rated the hazing scenarios (personal favorability), how favorably they expected male NCAA peers to rate them (peer favorability), and degree of self-reported positive affect following exposure to vignettes. One-way ANOVA analyses partially confirmed these observations (see Table 4).

Table 3.*Randomization Check: One-Way ANOVAs in Pre-Vignette Measures Across Conditions*

Variable		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Violence	Between Groups	.60	3	.20	.72	.54
	Within Groups	55.75	200	.28		
	Total	56.35	203			
POW	Between Groups	.74	3	.25	.92	.43
	Within Groups	54.07	200	.27		
	Total	54.81	203			
Playboy	Between Groups	.70	3	.23	.66	.57
	Within Groups	70.96	200	.36		
	Total	71.66	203			
Hetero	Between Groups	.68	3	.28	.52	.67
	Within Groups	87.54	200	.44		
	Total	88.22	203			
BIMI	Between Groups	1.40	3	.47	.75	.52
	Within Groups	124.58	200	.62		
	Total	125.98	203			

Note. N = 204; POW = Power Over Women; Playboy = Sexual Playboy; Hetero = Heterosexual Self-Presentation; BIMI = Communal Management subscale of the Bidimensional Impression Management Index

There was a significant effect of hazing condition on personal favorability [$F(3, 200) = 104.18, p < .001, \eta^2 = .61$], and peer-favorability ratings [$F(3, 200) = 79.37, p < .001, \eta^2 = .54$]. Post hoc comparisons using the Tukey HSD indicated that participants' personal appraisal and peer appraisal of the Control condition were significantly more favorable ($M = 4.37, SD = .98$ for personal; $M = 4.41, SD = .84$ for peer) than any of the other three conditions, all of which had mean favorability ratings below 2.75. In other words, participants in the Control group were more likely to rate this non-violent hazing activity favorably (i.e., approve of the activity and rate it as less harmful) and were more likely to believe that their NCAA peers would rate it favorably compared to participants in the three violent hazing conditions. There was no significant impact

of conditions on self-reported negative affect [$F(3, 200) = 1.116, p = .34$], while the impact of hazing condition on positive affect approached significance [$F(3, 200) = 2.52, p = .06$]. Finally, a one-way ANOVA conducted on believability also revealed a significant effect [$F(3, 200) = 3.38, p < .05$]. A post-hoc Tukey HSD comparison revealed that, similar to its performance in the pilot study, the “Touch” hazing condition ($M = 2.67, SD = .90$) in the main study was rated as slightly less believable than the other three conditions (mean scores ranging from 3.00-3.15). Nevertheless, the mean believability rating for the “Touch” hazing condition was still above the scale’s midpoint (range 1-4).

Table 4.
Manipulation Check: One-Way ANOVAs in Post-Vignette Reaction Measures Across Conditions

Variable		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>	η^2
Personal Favorability	Between Groups	251.34	3	83.78	104.18	.00	.61
	Within Groups	160.84	200	.80			
	Total	412.17	203				
Peer Favorability	Between Groups	188.15	3	62.72	79.37	.00	.54
	Within Groups	158.04	200	.79			
	Total	346.19	203				
Positive affect	Between Groups	6.36	3	2.12	2.52	.06	.04
	Within Groups	167.89	200	.84			
	Total	174.25	203				
Negative affect	Between Groups	1.65	3	.55	1.12	.34	.02
	Within Groups	98.36	200	.49			
	Total	100.00	203				
Believe	Between Groups	7.39	3	2.46	3.38	.02	.05
	Within Groups	145.61	200	.73			
	Total	153.00	203				

Note. N = 204; Personal Favorability = how favorably participants rated the hazing activity; Peer Favorability = participants’ beliefs about how favorably their peers (male NCAA athletes) would rate the hazing activity; Believe = Believability of vignette

Table 5 presents intercorrelations among this study's primary variables of interest. These findings were preliminary, given that the CMNI and BIMI were both administered prior to random assignment and bivariate correlations between these variables and the outcome variables did not control for experimental condition. Nevertheless, with one exception, all four subscales of conformity to masculine norms (violence, power over women, sexual playboy, heterosexual self-representation) were significantly and positively associated (at an alpha level of .01) with RMA (r -values $> .23$), HS (r -values $> .24$), and BS (r -values $> .20$). The only insignificant relationship was between the masculine norm of being a sexual playboy and BS ($r = -.04$). Furthermore, scores for all three dependent variables (RMA, HS, BS) were significantly and positively correlated with each other (r -values $> .21$; $p < .01$). Lastly, impression management scores (BIMI) were significantly and negatively correlated with conformity to the masculine norms of violence ($r = -.26$; $p < .01$) and sexual playboy ($r = -.28$; $p < .01$) and one dependent variable (hostile sexism; $r = -.15$; $p < .05$). Given this preliminary evidence of some socially desirable response biases, BIMI scores were included in all subsequent regression models as a covariate.

Main Hypotheses

The first set of hypotheses (1a-c), concerning the main effect of hazing condition on rape myth acceptance (RMA), hostile sexism (HS), and benevolent sexism (BS), was tested using multiple linear regression analyses (see Tables 6-8). Hazing condition was entered into each model as a predictor via dummy coded variables corresponding to Alcohol, Nudity, and Touch, with the control condition as the reference group. Impression management (BIMI) scores were included as a covariate. Omnibus test results failed to reject each of the null hypotheses, indicating a non-significant effect of hazing condition on all three dependent variables: RMA

($F(4, 198) = 1.02, p = .40, R^2 = .02$), HS ($F(4, 196) = 1.82, p = .13, R^2 = .04$), and BS ($F(4, 197) = .85, p = .50, R^2 = .02$). As shown in Tables 6-8, none of the hazing conditions significantly predicted levels of rape myth acceptance, hostile sexism, or benevolent sexism.

Table 5.

Correlations, descriptive statistics, and reliability coefficients across study variables

Measure	1	2	3	4	5	6	7	8	9	10
1. Violence	(.83)									
2. POW	.25**	(.80)								
3. Playboy	.26**	.23**	(.75)							
4. Hetero	.28**	.53**	.10	(.88)						
5. BIMI	-.26**	-.11	-.28**	-.05	(.60)					
6. PA	.02	.03	-.05	.13	.13	(.91)				
7. NA	-.16*	-.01	.01	-.01	-.07	.00	(.90)			
8. RMA	.24**	.58**	.29**	.54**	-.11	.05	-.01	(.89)		
9. BS	.22**	.21**	-.04	.40**	-.05	.20**	.13	.22**	(.74)	
10. HS	.34**	.65**	.25**	.57**	-.15*	.13	.05	.71**	.37**	(.91)
<i>M</i>	2.67	1.63	2.01	2.37	3.56	2.91	1.62	2.12	3.29	3.07
<i>SD</i>	(.53)	(.52)	(.59)	(.66)	(.79)	(.93)	(.70)	(.59)	(.73)	(1.02)

Note. N = 204; Values on the diagonal correspond to Cronbach's alpha; Correlations displayed as Pearson's r ; * $p < .05$, ** $p < .01$; *M* = Mean; *SD* = Standard Deviation; First four rows correspond to subscales of the Conformity to Masculine Norms Inventory; POW = Power Over Women; Playboy = Sexual Playboy; Hetero = Heterosexual Self-Presentation; BIMI = Communal Management subscale of the Bidimensional Impression Management Index; PA = Positive Affect; NA = Negative Affect; RMA = Rape Myth Acceptance; BS = Benevolent Sexism; HS = Hostile Sexism

Table 6.

Results of linear regression of rape myth acceptance on hazing condition

Variable	β	SE	t	p	95% CI for β	
					Lower Bound	Upper Bound
(Constant)	2.34	.21	11.14	.00	1.92	2.75
Dummy_Alcohol	.14	.12	1.22	.23	-.09	.37
Dummy_Nudity	.08	.12	.65	.52	-.16	.31
Dummy_Touch	.05	.12	.44	.66	-.18	.28
BIMI	-.08	.05	-1.50	.14	-.18	.03

Note. N = 204; BIMI = Communal Management subscale of the Bidimensional Impression Management Index

Table 7.*Results of linear regression of hostile sexism on hazing condition*

Variable	β	SE	t	p	95% CI for β	
					Lower Bound	Upper Bound
(Constant)	3.61	.36	9.95	.00	2.89	4.33
Dummy_Alcohol	.24	.20	1.19	.24	-.16	.63
Dummy_Nudity	.23	.20	1.15	.25	-.17	.63
Dummy_Touch	.02	.20	.07	.95	-.39	.41
BIMI	-.18	.09	-2.01	.05	-.37	.00

Note. N = 204; BIMI = Communal Management subscale of the Bidimensional Impression Management Index

Table 8.*Results of linear regression of benevolent sexism on hazing condition*

Variable	β	SE	t	p	95% CI for β	
					Lower Bound	Upper Bound
(Constant)	3.54	.26	13.67	.00	3.03	4.05
Dummy_Alcohol	-.10	.14	-.71	.49	-.38	.18
Dummy_Nudity	-.08	.14	-.52	.61	-.36	.21
Dummy_Touch	-.24	.14	-1.70	.09	-.53	.04
BIMI	-.04	.07	-.62	.54	-.17	.09

Note. N = 204; BIMI = Communal Management subscale of the Bidimensional Impression Management Index

The next three sets of hypotheses (2a-d, 3a-d, 4a-d) concerned the main effect of conformity to four different masculine norms on each of the three dependent variables (RMA, HS, BS) across experimental conditions (controlling for different forms of hazing exposure). To test the main effect of masculine norm conformity on each of the outcomes, a series of hierarchical linear regressions were run, entering dummy-coded hazing conditions and BIMI scores into the first block of predictors, while the second block consisted of hazing conditions, BIMI, and one of the CMNI subscales (e.g., violence, power over women, sexual playboy, or heterosexual self-presentation). Separate hierarchical regression models were run for each of four masculine norms and each of three dependent variables (RMA, HS, BS), resulting in 12 hierarchical regression analyses in total. Detailed summaries of these hierarchical regression

analyses can be found in Tables 9-20, which are included in Appendix A to conserve space within text. One example of these analyses can be viewed below:

Step 1: Dummy-Alcohol, Dummy-Nudity, Dummy-Touch, BIMi

Step 2: Dummy-Alcohol, Dummy-Nudity, Dummy-Touch, BIMi, CMNI-Sexual Playboy

Dependent Variable: Hostile Sexism

To test the second set of hypotheses (hypotheses 2a-d), a series of hierarchical regression analyses were conducted with rape myth acceptance entered as the dependent variable within each model. Predictor variables were entered into each model in steps, with three dummy coded groups and BIMi entered into step 1, and conformity to a particular masculine norm (e.g., violence, power over women, sexual playboy, heterosexual self-presentation) added into step 2 with hazing conditions and BIMi scores. Four different tests (corresponding to the four CMNI-46 subscales) were conducted. Results supported a rejection of the null hypothesis for all four tests concerning the main effect of conformity to masculine norms on rape myth acceptance. Consistent with results from the first set of hypotheses, step 1 within each model, comprising hazing conditions and BIMi scores, did not account for a significant proportion of the variance in rape myth acceptance. However, step 2 within each model (adding in a CMNI-46 subscale) was significant. A significant proportion of the variance in rape myth acceptance was explained by conformity to the masculine norms of violence ($F(5, 197) = 2.83, p < .05, R^2 = .07$), power over women ($F(5, 197) = 20.03, p < .001, R^2 = .34$), being a sexual playboy ($F(5, 197) = 3.91, p < .01, R^2 = .09$), and heterosexual self-presentation ($F(5, 197) = 17.64, p < .001, R^2 = .31$). Unstandardized regression coefficients (β) and F-statistics corresponding to changes in R^2 for the full models are displayed in Tables 9-12 (see Appendix A). Each table shows that, controlling for experimental condition and impression management scores, conformity to all four masculine

norms significantly predicted levels of rape myth acceptance, such that higher masculine norm conformity predicted higher endorsement of rape myths. Of note, step 3 within each table corresponds to interaction effects, which will be summarized in later sections.

The third set of hypotheses (hypotheses 3a-d) corresponded to the main effect conformity to the four masculine norms on hostile sexism. To test these hypotheses, hierarchical regression tests were conducted with hostile sexism designated as the dependent variable, dummy-coded hazing conditions and BIMBI scores entered into the first block of predictors within each model, and conformity to one of four masculine norms added into the second block. Results once again supported a rejection of the null hypothesis for all four tests. Step 2 within each model (adding in conformity to a particular masculine norm) resulted in a significant proportion of the variance in hostile sexism being accounted for by the masculine norm of violence ($F(5, 195) = 5.57, p < .001, R^2 = .10$), power over women ($F(5, 195) = 29.73, p < .001, R^2 = .43$), being a sexual playboy ($F(5, 195) = 3.38, p < .01, R^2 = .08$), and heterosexual self-presentation ($F(5, 195) = 21.01, p < .001, R^2 = .35$). Tables 13-16 (see Appendix A), displaying coefficients and F-statistics corresponding to changes in R^2 show that, controlling for experimental hazing condition and impression management scores, conformity to each of the four masculine norms significantly predicted levels of hostile sexism.

The fourth set of hypotheses (hypotheses 4a-d) concerned the main effect conformity to the four masculine norms on benevolent sexism. Hierarchical linear regression tests were also used, with benevolent sexism entered as the dependent variable, dummy-coded hazing conditions and BIMBI entered into the first block of predictors, and conformity to different masculine norms added into the second block. Results offered partial support for the third set of hypotheses. Step 2 within each model (adding in conformity to a particular masculine norm) resulted in a significant

proportion of the variance in benevolent sexism being accounted for by conformity to the masculine norms of violence ($F(5, 196) = 2.70, p < .05, R^2 = .06$), power over women ($F(5, 196) = 2.59, p < .05, R^2 = .06$), and heterosexual self-presentation ($F(5, 196) = 8.67, p < .001, R^2 = .18$). When added to the model, conformity to the masculine norm of being a sexual playboy did not account for a significant proportion of variance in benevolent sexism ($F(5, 196) = .81, p = .55, R^2 = .02$). Tables 17-20 (see Appendix A) display coefficients and F-statistics corresponding to changes in R^2 . Results show that, controlling for hazing condition and impression management, conformity to the masculine norms of violence, power over women, and heterosexual self-presentation significantly predicted levels of benevolent sexism.

It is possible (and even common) in moderation models for main effects (e.g., hazing condition on RMA) to be non-significant while interaction effects are still significant (Tabachnick & Fidell, 2019). Therefore, interaction effects between experimental conditions and conformity to the four masculine norms were also examined. To test Hypotheses 5-8 (the moderating effect of CMNI subscales on the relationship between abusive hazing exposure and the three outcome variables [RMA, HS, BS]), hierarchical regression tests were conducted with the same variables from Hypotheses 2-4 entered into the first two blocks and interaction terms entered into the third block.

Results corresponding to Hypotheses 5-8 are also summarized in Tables 9-20 (see Appendix A, and “Model 3” within each table), with omnibus test results for the interaction effects presented in Table 21 (also see Appendix A). Omnibus F-tests for most, though not all, of the interactions were significant. However, p -values for the F-change statistic, corresponding to the additional variance accounted for by each “Model 3” were mostly non-significant. Furthermore, post-hoc inspection of coefficients across Tables 9-20 (Appendix A) shows that all

but two of 36 possible interaction terms yielded non-significant p-values (the total of 36 interaction terms can be calculated by multiplying three dummy-coded hazing variables, four CMNI subscales, and three outcome variables). In other words, the significance of most of the omnibus F-tests seemed to be largely due to the simple/main effect of the moderator, rather than interaction terms within each of these models.

There were, nevertheless, two interaction models that did reach statistical significance above and beyond the variance accounted for by the main effect of the moderator. The interaction between the Touch hazing condition and the Violence subscale of the CMNI-46 yielded a significant effect on hostile sexism ($\beta = -1.17, p < .01$; see Table 13, Appendix A). Contrary to expectations, however, the effect of being exposed to the Touch hazing condition on hostile sexism was moderated by conformity to the masculine norm of violence, such that this effect was *weaker* for those who endorsed greater conformity to this norm. Additionally, the interaction between the Nudity hazing condition and the Heterosexual Self-Presentation subscale of the CMNI-46 yielded a significant effect on benevolent sexism ($\beta = .53, p < .05$; see Table 20, Appendix A). As such, conformity to the masculine norm of presenting oneself as heterosexual moderated the effect of Nudity hazing on benevolent sexism, such that this effect was stronger for individuals who reported greater adherence to this masculine norm. Plots of these moderation effects can be viewed in Figure 3 and Figure 4.

Figure 3.

Interaction effect of hazing conditions and conformity to the masculine norm of violence on hostile sexism

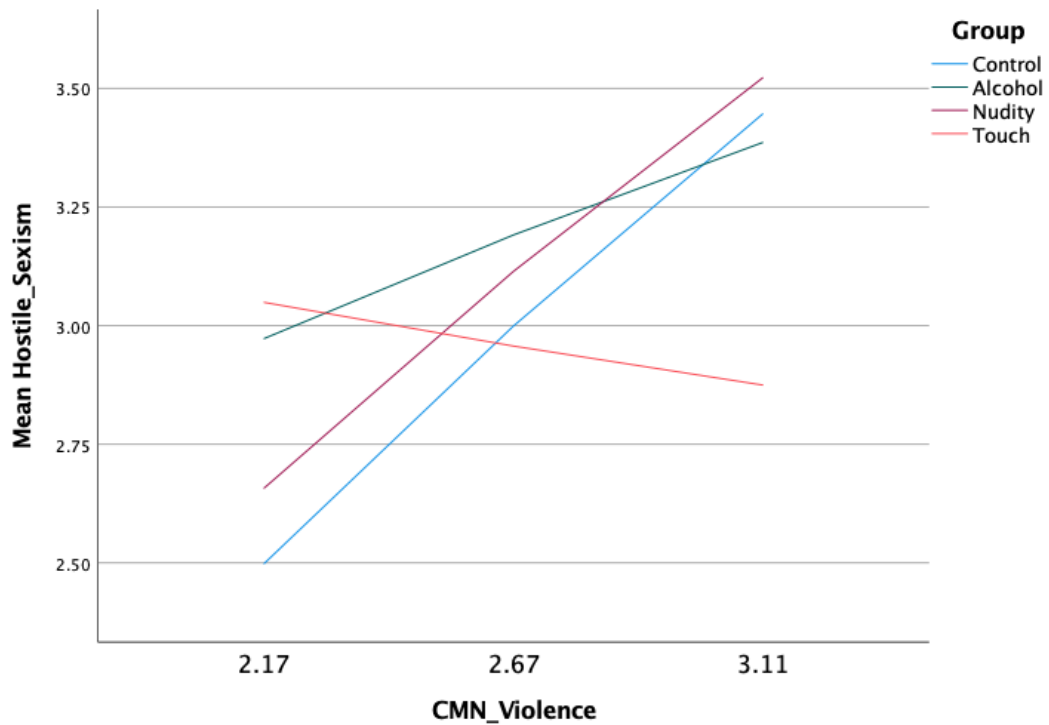
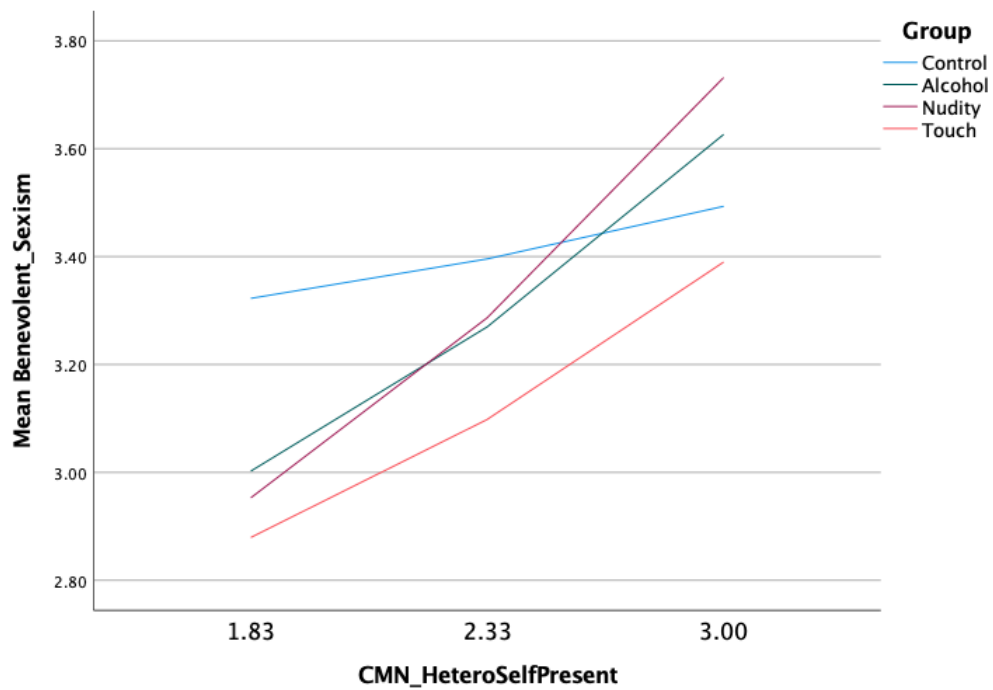


Figure 4.

Interaction effect of hazing conditions and conformity to the masculine norm of heterosexual self-presentation on benevolent sexism



Finally, Hypotheses 9 and 10 explored the moderating effect of how favorably participants rated a given hazing activity on the relationship between hazing condition and outcome variables (RMA, HS, BS). These hypotheses were also tested using hierarchical regression analyses. Results failed to provide support for rejecting any of the null hypotheses. For Hypotheses 9a-c, omnibus tests indicated that the interaction between hazing conditions and Personal Favorability ratings (i.e., how favorably participants rated a hazing activity) had no significant effect on rape myth acceptance ($F[8, 194] = .69, p = .70$), hostile sexism ($F[8, 192] = 1.34, p = .23$), or benevolent sexism ($F[8, 193] = 1.27, p = .26$). Results of the hierarchical linear regression, including individual coefficients and p -values for each hazing condition are presented in Tables 22-24 (see Appendix A).

Tests of Hypotheses 10a-c also failed to yield a rejection of the null hypothesis on each occasion. Omnibus tests via hierarchical regression showed that the interaction between hazing conditions and Peer Favorability ratings (i.e., participants' beliefs about the proportion of male NCAA athletes who would view the hazing activity favorably) did not have a significant effect on any of the three outcome variables. This included rape myth acceptance ($F[8, 194] = .58, p = .79$), hostile sexism ($F[8, 192] = 1.25, p = .27$), or benevolent sexism ($F[8, 193] = .57, p = .80$). See Tables 25-27 (Appendix A) for results from the hierarchical linear regression tests, including coefficients and p -values corresponding to each hazing condition.

Exploratory Analyses

A number of exploratory analyses were conducted. An initial analysis more closely examined one possible source of error within the data – namely, the length of time it took athletes to complete the study. Further tests explored other potential outcomes from hazing

exposure (e.g., state affect), and the potential role of several demographic variables, including age, year in college, socioeconomic status, and types of sport.

Re-Testing Hypotheses After Removing Participants Based on Study Completion Time

An initial exploratory analysis was conducted to inspect a potential source of error within the data. Closer inspection of this study's dataset revealed a handful of participants whose "survey completion time" (i.e., the length of time between clicking on the survey link and closing out of the link, regardless of whether or not they responded to all items) appeared to be considerably greater than the "norm." While the median completion time for this study was approximately 18 minutes across 204 participants, there were several participants whose "survey completion time" lasted over an hour or even up to several days (>80 hours). While this does not necessarily mean that these individuals were still participating in the study at different points across this time (e.g., participants could have stopped participating after 20 minutes but forgotten to close out of the link for several days), it does raise some potential concerns. Given that this was an experimental study with a focus on the immediate impact of exposing participants to a hazing vignette, it is possible that the effects of vignette exposure could have been diluted for participants who took an abnormally long amount of time to complete the study.

As such, potential outliers for "study completion time" were identified using the interquartile range (IQR). This value was multiplied by 1.5, and then added to the 75th-percentile and subtracted from the 25th-percentile (Tukey, 1977). Values above and below these thresholds were removed for further analysis, resulting in 31 cases being removed. New minimum and maximum study completion times were 10.17 minutes and 36.47 minutes, respectively.

All ten original hypotheses (i.e., main effect of hazing conditions on three outcomes, main effect of conformity to masculine norms on three outcomes, and interaction effects of

hazing and masculine norm conformity on three outcomes) were re-tested using the new sample ($N = 173$). However, running all analyses with this sample did not change any of the original findings. All hypotheses that were supported using the full sample ($N = 204$) were also supported using the new sample after abnormal cases were removed ($N = 173$), and all hypotheses that were not supported with the original sample were not supported upon re-running the analyses.

Impact of Hazing on State Affect

Participants in this study also completed a measure of state affect (the PANAS) following their exposure to the hazing conditions. This measure was included within the procedure as a possible mediating variable, should results have shown a significant effect between hazing conditions and any of the outcomes (RMA, HS, or BS). As there were no such relationships, the preliminary conditions for mediation were not satisfied and no mediation analyses were conducted. Nevertheless, one preliminary ANOVA test (see Table 4) suggested that there may have been a link between hazing condition and state affect. As such, a follow-up exploratory regression analysis was conducted, controlling for impression management scores. While there was no significant effect of hazing exposure on negative affect, the effect of hazing exposure on positive affect was significant ($F(4, 199) = 2.65, p < .05$) when holding impression management scores constant. Participants who were randomized into the control hazing condition ($M = 3.20, SD = .84$) reported significantly higher positive affect after reading their vignette than participants in any of the three violent hazing conditions (Alcohol: $M = 2.80, SD = .88$; Nudity: $M = 2.82, SD = .95$; Touch: $M = 2.78, SD = .99$).

Assessing Demographic Variables (Age, Year, SES)

Tests were also run using several of this study's demographic variables to determine whether they exhibited significant relationships with any of the variables of interest. Prior

research has shown that constructs such as masculine norm conformity are often experienced in different ways across racial/ethnic and sexual identity groups (e.g., Vogel et al., 2011). As the current study's sample was lacking in racial/ethnic diversity (79.9% White), differences based on race/ethnicity were not explored, as it would have likely required combining racial categories, thereby potentially erasing unique intersectional experiences. Nevertheless, variables such as sexual orientation, age, year in school (e.g., freshman), and perceived socioeconomic status were added in as covariates into all of the original regression models used for the study's main hypotheses (Hypotheses 1-10). Including any of the aforementioned demographic markers as covariates, however, did not significantly alter the main findings (i.e., there were no changes in hypotheses that were originally supported, nor were there any changes in hypotheses that were not originally supported).

Type of Sport

Prior research on sexual violence perpetrated by male athletes has explored whether athletes in certain sports are uniquely prone to these behaviors or related attitudes (e.g., Forbes et al., 2006; Gage, 2008; Sawyer et al., 2002). Within the current study, exploratory tests were conducted to explore differences between “team vs. individual sports” and “contact vs. non-contact sports” on several variables of interest. As these were dichotomous categorical variables, independent samples t-tests and ANCOVAs were used. All but two of the 204 participants identified their NCAA sport. Of the 17 sports represented in the sample, 10 of them were classified as “team” sports and seven of them as “individual” sports, and there were eight sports classified as “contact” and nine classified as “non-contact (see Table 28).

Of note, the taxonomies used to categorize “sport type” were not necessarily flawless or straightforward. For example, while college athletes in individual sports (e.g., track and field,

golf, wrestling) perform and compete primarily as individuals, they are also usually members of a larger team, and their individual performance outcomes are often aggregated into overall scores for competing against teams from other schools. Similarly, there are some sports (e.g., baseball) traditionally categorized as non-contact that still involve forms of aggression, including physical fights (e.g., when a batter charges the mound after getting hit by a pitch). Nevertheless, the taxonomies used in this study resembled those used in prior research (Forbes et al., 2006; Sawyer et al., 2002). Finally, while there was considerable overlap between these two groupings (i.e., most team sports were also contact sports), there were a few differences (e.g., baseball, volleyball, and rowing were classified as team non-contact sports; wrestling as an individual contact sport), and so separate analyses were run to test both factors.

Table 28.
Taxonomies and sample sizes for types of sport

Team (N)	Individual (N)	Contact (N)	Non-Contact (N)
Baseball (15)	Fencing (2)	Basketball (9)	Baseball (15)
Basketball (9)	Golf (2)	Football (22)	Fencing (2)
Football (22)	Gymnastics (6)	Ice Hockey (3)	Golf (2)
Ice Hockey (3)	Swim & Dive (22)	Lacrosse (10)	Gymnastics (6)
Lacrosse (10)	Tennis (6)	Rugby (1)	Rowing (11)
Rowing (11)	Track & Field/XC (51)	Soccer (11)	Swim & Dive (22)
Rugby (1)	Wrestling (19)	Water Polo (5)	Tennis (6)
Soccer (11)		Wrestling (19)	Track & Field/XC (51)
Volleyball (7)			Volleyball (7)
Water Polo (5)			
Total N = 94	Total N = 108	Total N = 80	Total N = 122

Note. Two participants did not report their sport; Only one participant was a multi-sport athlete in both a team/contact (football) and individual/non-contact (track & field) sport. In this case, the participant was grouped in the a “team” and “contact” sport sub-samples, as both were of particular interest given prior research findings (Forbes et al., 2006; Sawyer et al., 2002).

A series of independent samples t-tests were conducted to compare athletes in team sports and contact sports with athletes in individual sports and non-contact sports, respectively, on their conformity to masculine norms (i.e., violence, power over women, sexual playboy, heterosexual self-presentation). Means and standard deviations for these measures across types

of sport are presented in Table 29. Comparing athletes in team vs. individual sports revealed significant differences in conformity to the masculine norms of violence, $t(200) = -2.03, p < .05$, and heterosexual self-presentation, $t(200) = -3.10, p < .01$, such that athletes in team sports reported higher mean scores on these CMN subscales. When athletes in contact and non-contact sports were compared, similar significant differences emerged in conformity to the masculine norms of violence, $t(200) = -3.45, p < .01$, and heterosexual-self-presentation, $t(200) = -4.12, p < .001$, with contact-sport athletes reporting higher mean scores on both measures.

Table 29.

Means and standard deviations for masculine norm conformity across types of sport

CMN Subscale	Type of Sport			
	Team	Individual	Contact	Non-Contact
	(<i>n</i> = 94) <i>M</i> (<i>SD</i>)	(<i>n</i> = 108) <i>M</i> (<i>SD</i>)	(<i>n</i> = 80) <i>M</i> (<i>SD</i>)	(<i>n</i> = 122) <i>M</i> (<i>SD</i>)
Violence	2.75 (.51)	2.60 (.53)	2.83 (.52)	2.57 (.51)
Power Over Women	1.68 (.53)	1.59 (.51)	1.72 (.55)	1.58 (.49)
Sexual Playboy	2.10 (.58)	1.94 (.60)	2.07 (.66)	1.98 (.55)
Heterosexual Self-Presentation	2.52 (.69)	2.24 (.60)	2.60 (.57)	2.23 (.67)

Note. N = 204; Two participants did not report their sport

Further tests were conducted to explore the impact of “sport type” on the three main outcome variables in this study (rape myth acceptance, hostile sexism, benevolent sexism), as well as possible interactions between types of sport and the experimental manipulation (hazing condition). A series of two-way ANCOVAs were conducted, using hazing condition (Touch, Nudity, Alcohol, Control) as one factor and type of sport (either team vs. individual, or contact vs. non-contact) as a second factor, while impression management (i.e., BIM) scores were entered as a covariate. Each two-way ANCOVA reflected a 4x2 factorial design (four groups, two types of sport).

Results from each two-way ANCOVA are presented in Tables 30-35. There was a significant main effect of whether athletes played a team or individual sport on their measures of

hostile ($F[1, 191] = 7.20, p < .01$) and benevolent sexism ($F[1, 192] = 4.11, p < .05$). Athletes in team sports reported higher levels of hostile sexism ($M = 3.31, SD = 1.05$) and higher levels of benevolent sexism ($M = 3.40, SD = .69$) than individual sport athletes (hostile $M = 2.88, SD = .97$; benevolent $M = 3.20, SD = .74$). Similarly, there was a significant main effect of whether athletes played a contact or non-contact sport on their measures of hostile ($F[1, 191] = 3.98, p < .01$) and benevolent sexism ($F[1, 192] = 8.88, p < .01$). Athletes in contact sports reported higher levels of hostile sexism ($M = 3.25, SD = .97$) and higher levels of benevolent sexism ($M = 3.47, SD = .66$) than non-contact sport athletes (hostile $M = 2.97, SD = 1.05$; benevolent $M = 3.18, SD = .75$). Meanwhile, there was no significant effect of type of sport (team vs. individual; contact vs. non-contact) on levels of rape myth acceptance (p -values = .17 and .098, respectively), despite mean differences trending in similar directions (Team Sport: $M = 2.20, SD = .58$; Individual Sport: $M = 2.06, SD = .59$; Contact Sport: $M = 2.21, SD = .56$; Non-Contact Sport: $M = 2.07, SD = .60$)

Table 30.

Univariate tests of hazing and type of sport (team vs. individual) on rape myth acceptance

Source	Type III SS	df	Mean Square	F	p	Partial η^2
Corrected Model	4.10 ^a	8	0.51	1.51	.16	.06
Intercept	54.68	1	54.68	161.09	.00	.46
BIMI	1.15	1	1.15	3.38	.07	.02
Hazing Condition	0.63	3	0.21	.62	.60	.01
Sport (Team)	0.66	1	0.66	1.94	.17	.01
Hazing * SportTeam	1.60	3	0.53	1.57	.20	.02
Error	65.51	193	0.34			
Total	981.37	202				
Corrected Total	69.61	201				

Note. N = 204; ^aR Squared = .059 (Adjusted R Squared = .020)

Table 31.*Univariate tests of hazing and type of sport (team vs. individual) on hostile sexism*

Source	Type III SS	df	Mean Square	F	<i>p</i>	Partial η^2
Corrected Model	23.02 ^a	8	2.88	2.95	.00	.11
Intercept	126.94	1	126.94	130.01	.00	.41
BIMI	4.38	1	4.38	4.49	.04	.02
Hazing Condition	1.91	3	0.64	0.65	.58	.01
Sport (Team)	7.03	1	7.03	7.20	.01	.04
Hazing * SportTeam	8.02	3	2.67	2.74	.05	.04
Error	186.50	191	.98			
Total	2102.33	200				
Corrected Total	209.53	199				

Note. N = 204; The *p*-values corresponding to Sport Type (Team) and Group*SportTypeTeam were .008 and .045, respectively, rounded to two decimal places. ^aR Squared = .110 (Adjusted R Squared = .073)

Table 32.*Univariate tests of hazing and type of sport (team vs. individual) on benevolent sexism*

Source	Type III SS	df	Mean Square	F	<i>p</i>	Partial η^2
Corrected Model	6.83 ^a	8	0.85	1.66	.11	.07
Intercept	104.69	1	104.69	203.66	.00	.52
BIMI	0.19	1	0.19	0.37	.54	.00
Hazing Condition	1.34	3	0.45	0.87	.46	.01
Sport (Team)	2.11	1	2.11	4.11	.04	.02
Hazing * SportTeam	2.91	3	0.97	1.89	.13	.03
Error	98.69	192	0.51			
Total	2286.44	201				
Corrected Total	105.52	200				

Note. N = 204; ^aR Squared = .065 (Adjusted R Squared = .026)

Table 33.*Univariate tests of hazing and type of sport (contact vs. non-contact) on rape myth acceptance*

Source	Type III SS	df	Mean Square	F	<i>p</i>	Partial η^2
Corrected Model	3.75 ^a	8	.47	1.37	.21	.05
Intercept	49.82	1	49.82	145.99	.00	.43
BIMI	.68	1	0.68	1.99	.16	.01
Hazing Condition	.58	3	0.19	.57	.64	.01
Sport (Contact)	.94	1	0.94	2.76	.10	.01
Hazing * SportContact	.99	3	0.33	.96	.41	.02
Error	65.86	193	0.34			
Total	981.37	202				
Corrected Total	69.61	201				

Note. N = 204; ^aR Squared = .054 (Adjusted R Squared = .015)

Table 34.*Univariate tests of hazing and type of sport (contact vs. non-contact) on hostile sexism*

Source	Type III SS	df	Mean Square	F	<i>p</i>	Partial η^2
Corrected Model	15.44 ^a	8	1.93	1.9	.06	.07
Intercept	116.47	1	116.47	114.62	.00	.38
BIMI	3.00	1	3.00	2.95	.09	.02
Hazing Condition	3.00	3	1.00	.99	.40	.02
Sport (Contact)	4.04	1	4.04	3.98	.05	.02
Hazing * SportContact	3.79	3	1.26	1.24	.30	.02
Error	194.09	191	1.02			
Total	2102.33	200				
Corrected Total	209.53	199				

Note. N = 204; The *p*-value corresponding to Sport Type (Contact) was .047, rounded to two decimal places. ^aR Squared = .074 (Adjusted R Squared = .035)

Table 35.*Univariate tests of hazing and type of sport (contact vs. non-contact) on benevolent sexism*

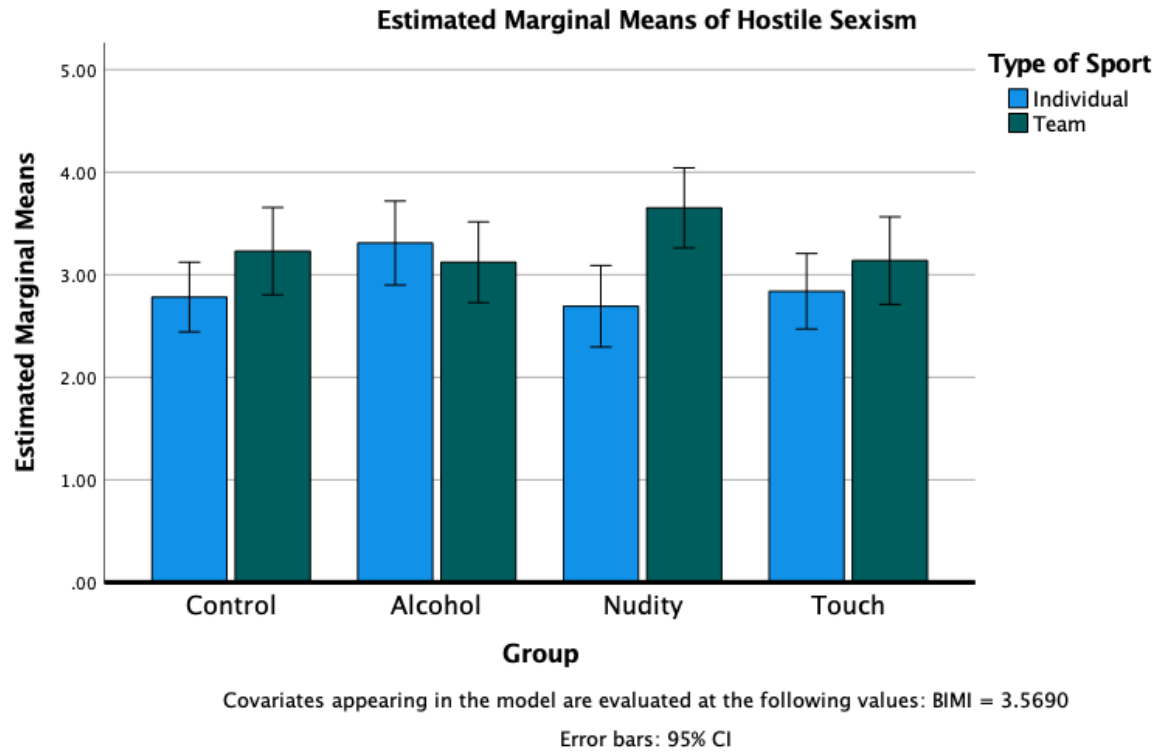
Source	Type III SS	df	Mean Square	F	<i>p</i>	Partial η^2
Corrected Model	7.73 ^a	8	.97	1.90	.06	.07
Intercept	101.44	1	101.44	199.16	.00	.51
BIMI	0.15	1	.15	.29	.59	.00
Hazing Condition	2.09	3	.70	1.37	.25	.02
Sport (Contact)	4.52	1	4.52	8.88	.00	.04
Hazing * SportContact	1.35	3	.45	.88	.45	.01
Error	97.80	192	.51			
Total	2286.44	201				
Corrected Total	105.52	200				

Note. N = 204; ^aR Squared = .073 (Adjusted R Squared = .035)

Lastly, there was one significant interaction effect between hazing condition and whether athletes played team or individual sports on hostile sexism (see Table 31). Post-hoc analyses were conducted by inspecting confidence intervals to determine which hazing condition yielded non-overlapping confidence intervals (see Figure 5). Within the Nudity hazing condition, athletes who played a team sport reported significantly higher levels of hostile sexism ($M = 3.68$, $SD = .1.19$) than athletes who played an individual sport ($M = 2.71$, $SD = .93$) after being exposed to this vignette, $F(3, 191) = 2.74$, $p < .05$.

Figure 5.

Interaction effect of hazing condition and type of sport (team vs. individual) on hostile sexism



Chapter 5: Discussion

This study explored how psychosocial aspects of masculinity in sport influence the sexist and sexually violent attitudes of male athletes. Its primary aim was to move research on male athlete-perpetrated sexual violence (MASV) beyond questions of whether this population is “more prone” than other groups (e.g., Gidycz et al., 2007; Smith & Stewart, 2003), into more nuanced questions about the cultural, relational, and attitudinal factors underlying this issue. In doing so, this study also sought to enhance the scope, content, and efficacy of sexual violence prevention programming in sport.

The discussion that follows will summarize key findings from this research, implications for practice, as well as limitations and future research directions. First, however, it is important to briefly review some of the significant ways in which the current study sought to build upon existing literature, in order to frame the discussion of results below and highlight some of the intended objectives. First, this project was aligned with recent calls to situate issues pertaining to the psychology of men “in context,” and to avoid framing masculinity as something constructed, enacted, and experienced universally in the same ways (Addis & Hoffman, 2019; Addis & Schwab, 2013, McDermott et al., 2015b). While links between various masculinity-related variables and sexual violence are well-documented among general populations of men or college men (e.g., Cole et al., 2019; Le et al., 2020; O’Neil, 2008), few studies have narrowed the focus to how these relationships function in sport (and specifically among NCAA Division I male athletes). For example, despite the (perhaps) widely held belief that male “locker room culture” in sport contributes to MASV, few if any efforts have been made by researchers to document this phenomenon empirically.

Second, some scholars have called for a more holistic framework for understanding violence perpetrated by men (Fleming et al., 2015). Accordingly, the present study sought to challenge any notion that different forms of male violence or abuse (e.g., against women, against other men) function independently of each other or should be studied in isolation. Instead, the focus here was partially on how ritualized and normalized patterns of abuse among male athletes, especially those wrapped in a façade of fraternal bonding, influence other predictors of violence.

Finally, prior research within the psychology of men and masculinities (PMM) has relied heavily upon cross-sectional research designs, rarely using experimental methods (Whorley & Addis, 2006). Studies reinforcing this trend have focused largely on how various behavioral health outcomes (e.g., violence, substance abuse, help seeking, depression) can be predicted by men's self-reported adherence to traditional gender norms (e.g., Wong et al., 2016) or their self-reported levels of psychological stress/conflict associated with their gender roles (e.g., O'Neil, 2008). While valuable, these approaches to research can often fail to capture the nuanced ways in which masculinity functions as a dynamic, social constructed, and situationally or interpersonally responsive phenomenon (Addis et al., 2016; Murnen, 2015). Furthermore, by operationalizing masculinity solely as a matter of individual difference, these approaches can also inadvertently reinforce essentialist notions of gender (Addis et al., 2010; 2016). A separate body of masculinity research has used experimental designs to explore how men respond emotionally, attitudinally, or behaviorally when their gender status is threatened (e.g., Vandello & Bosson, 2008). Outside of a few recent studies (Brady et al., 2018; Hunt et al., 2013; Parent & Cooper, 2019), however, few efforts have been made to integrate some of these "masculinity paradigms" (i.e., those assessing individual differences and those measuring responses to a gender threat). As such, the current study also sought to test them concurrently.

The Impact of Hazing Exposure on Rape Myth Acceptance and Sexism

Among this study's aims, its first involved exploring links between exposure to vignettes depicting violent hazing in sport – as one aspect of “locker room culture” – and male athletes' sexism and attitudes toward sexual violence. In terms of main effects, no such relationships were found in the current study, and the first set of hypotheses (Hypotheses 1a-1d) were not supported. Despite the noteworthy fact that mean scores for both rape myth acceptance and hostile sexism after exposure to the hazing vignettes trended in expected directions – marginally higher for participants in the three violent hazing groups (Touch, Nudity, Alcohol) than for participants in the Control group (non-violent hazing; see Table 2) – none of these group differences reached statistical significance. Participants who were randomly assigned to read vignettes that depicted a non-consensual, violent hazing activity did not subsequently report significantly greater endorsement of rape myths or hostile/benevolent sexism than participants who were randomly assigned to the consensual, non-violent hazing condition. Unlike previous studies that have found that men are more likely to blame rape victims, justify perpetrators, or endorse other rape myths after being exposed to a gender threat (Munsch & Willer, 2012), to rape myths in the media (Franiuk et al., 2008), or to violent video game content (Beck et al., 2012), the current study failed to show that exposing male athletes to hazing vignettes elicits similar outcomes. Similarly, while there is growing evidence that experiential threats to men's gender status can make them more prone to endorse sexist attitudes (O'Connor et al., 2017), this study did not yield such findings.

There are a number of possible explanations for why no significant relationships emerged between the vignette-based hazing conditions and the dependent variables of interest. Given that participants in the control condition did report marginally lower rape myth acceptance and

hostile sexism that participants in the violent hazing conditions, it is worth considering whether a larger sample size would have yielded group differences that reached statistical significance. However, results of the current study suggest that hazing exposure via the vignettes used in this study did not impact men's sexist or sexually violent attitudes. While different forms of male-perpetrated interpersonal abuse or aggression can share common underlying mechanisms or root causes (Fleming et al., 2015), the current findings could suggest that male athletes' abuse of each other through hazing does not influence their endorsement of sexism or rape myth acceptance. In other words, despite the fact that hazing practices are widespread in sport (Hoover, 1999; Johnson et al., 2018) and can have a host of deleterious consequences, including symptoms of post-traumatic stress (Finkel, 2002) and depression and suicidality (Kim et al., 2019), it is possible that increased sexism or increased endorsement of rape-justifying attitudes are not among these outcomes.

Nevertheless, the psychosocial repercussions of hazing in sport, including those related to sexual violence, merit further study. For one, there is growing empirical support for the commonly used phrase, "hurt people hurt people" (Barrett et al., 2011; Ren et al., 2018) – perhaps a reductionistic way of capturing the hypothesized relationship between hazing victimization and sexually violent attitudes or behavior. Within the broader literature on sexual violence, for example, studies have shown that individuals who are victimized by abuse or violence as children or adolescents are more likely to perpetrate various forms of interpersonal violence later in life (e.g., Caesar, 1988; Loh & Gidycz, 2006; Merrill et al., 2001; Whitfield et al., 2003).

Importantly though, this relationship could be more complicated when it comes to the issue of hazing, since hazing practices (1) vary in content and severity (even across the current

study's vignettes), and (2) are so often viewed, even by those who are victimized, as necessary rites of passage and even opportunities for "team-bonding" (Van Raalte et al., 2007). A quantitative study like this can, therefore, have shortcomings when it comes to fully capturing the consequences of such a complex phenomenon. Due to the prosocial façade often ascribed to hazing within the culture of many sports teams, any impacts of hazing on male athletes' sexually violent attitudes or behavior may be exceedingly difficult to measure via, for example, commonly used questionnaires.

There were other noteworthy aspects of the current study's design that may have acted as confounds, limiting its capacity to detect a significant relationship between hazing and sexually violent outcomes, if one does in fact exist. First, the current study's procedure left open opportunities for any existing effects to be diluted or rendered undetectable. The online survey format, for example, allowed participants to step away from the study at any time, potentially decreasing any psychological or emotional effects or residue from vignette exposure. In light of this, exploratory analyses conducted in this study included re-running all tests after removing the participants who took an abnormally long or short amount of time to complete the survey. While doing so did not change any of the original results, this does not preclude there being other unanticipated confounding effects when a participant steps away from the survey, even for a brief amount of time.

Second, a measure of state affect (PANAS) was included in the current procedure after the vignettes, as an alternative manipulation check and as a potential mediator to explain any link between the experimental conditions and dependent variables. While this measure did not prove to be completely irrelevant (as discussed further below), positioning it immediately after the vignettes slightly delayed participants' completion of other outcome measures (rape myth

acceptance, hostile/benevolent sexism), leaving time for any experimental effects to potentially fade. This highlights one of the drawbacks of including manipulation checks within studies, rather than solely within pre-study trials used to pilot test experimental conditions. Manipulation checks, in other words, may interact with, enhance, or mute the impact of the manipulation on the dependent variable and “might cause undesirable reactivity among participants” (Ejelöv & Luke, 2020, p. 1). Ultimately, it is difficult to speculate on the ways in which in-person participation or a different sequence of questionnaires would have impacted this study’s findings, but both adjustments are worthy of further exploration.

Finally, it is also possible that the hazing vignettes used in the current study were not experienced in ways that were comparable to “masculinity threat” tools used in prior research. While men can often respond to a masculinity threat with increased propensity to endorse sexism and homophobic humor (O’Connor et al., 2017), blame rape victims and justify rape perpetrators (Munsch & Willer, 2012), or engage in aggressive behavior (Bosson et al., 2009; Jin et al., 2018), it is possible that the current hazing vignettes were not, in fact, perceived to be a gender threat at all, or perhaps were not “threatening” enough. Most studies on gender threats, for example, have relied on some form of false feedback paradigm: After completing a questionnaire such as the CMNI-46, participants are typically shown randomized fake “results” describing them as “more or less masculine” than their peers (e.g., Braly et al., 2017). Exposure to this type of feedback has shown the many ways in which masculinity is experienced as “precarious” (Vandello et al., 2008), and often elicits that which Willer and colleagues (2013) have alternatively referred to as “masculine overcompensation,” whereby men will engage in extreme demonstrations of masculinity in an attempt to reassert their gender status or alleviate gender-related anxiety or insecurity. Examples of this overcompensation can include endorsing greater

support for war, more homophobic attitudes, or increased belief in male superiority (Willer et al., 2013).

While the current study did not employ a false feedback paradigm, it remains somewhat surprising that vignette hazing conditions did not elicit similar outcomes, especially since the use of vignettes has been an effective way to “prime” participants in other studies exploring gendered perceptions and experiences (e.g., Eisler et al., 2000; Munsch & Willer, 2012; Van Boven & Robinson, 2012; Weaver et al., 2010). Furthermore, the researchers behind the Theory of Precarious Manhood have noted that, “...because of the precarious nature of manhood, *anything that makes salient its precariousness*, or calls one’s manhood status into question, should be especially anxiety provoking” (Vandello et al., 2008, p. 1326, italics added). The vignettes in the current study were purposefully designed to evoke some form of this gendered angst. The three experimental hazing conditions (i.e., Touch, Nudity, Alcohol) included themes related to physical touch among men, binge drinking, nudity in front of other men, body shaming related to penis size and weight, competitiveness, and rejection around being perceived as “soft” – all of which constitute ways in which masculinity is often performed and policed (Anderson et al., 2012; Cole et al., 2020; Hunt et al., 2013; Iwamoto et al., 2011; Lever et al., 2006; Miller, 2016; Vandello et al., 2008).

Nevertheless, the lack of significant findings related to these hazing vignettes could also highlight an important distinction between “hazing exposure” and “hazing victimization.” By employing experimental vignettes, the current study was concerned with the former, while the latter can likely only be measured via self-reported history, given the many risks and ethical concerns associated with asking individuals in a research study to participate in a hazing activity. Vignette-based designs are used throughout the bodies of literature on sexual violence (e.g.,

Munsch & Willer, 2012) and masculinity (e.g., Wong et al., 2011) and can be effective ways of balancing concerns related to internal and external validity (Aguinis & Bradley, 2014). However, the scenarios they depict are still hypothetical and, in this case, displayed in written form rather than a potentially stronger format such as video. Despite being encouraged to “*imagine yourself participating*” in the hazing activity described in each vignette, participants in the current study were still distanced from the physical, psychological, emotional, and physiological experience of actually being hazed. In other words, while informative, this study’s findings provide no conclusive determination on whether hazing *participation* or *victimization* has an impact on male athletes’ sexually violent attitudes or behavior. Instead, interpreted precisely, results from this study merely suggest that *reading* about hazing activities (e.g., in the media) may have no immediate impact on male athletes’ sexist or sexually violent attitudes. In other words, it might be more theoretically appropriate to compare the current findings with previous research on men’s reactivity to being exposed to hypermasculine advertising (Parent & Cooper, 2020) or reading media headlines that contain rape myths (Franiuk et al., 2008).

The Impact of Masculine Norm Conformity on Rape Myth Acceptance and Sexism

This study’s second aim was to explore the impact of masculine norm conformity on rape myth acceptance, hostile sexism, and benevolent sexism among male NCAA Division I athletes. Results of hierarchical regression analyses supported all but one of 12 hypotheses within this aim (hypotheses 2a-2d, 3a-3d, 4a, 4b, 4d). As expected, male athletes in the current study who endorsed greater conformity to the masculine norms of violence, power over women, and heterosexual self-presentation all reported higher levels of rape myth acceptance, hostile sexism, and benevolent sexism, when holding experimental conditions and impression management scores constant. Conformity to the masculine norm of being a sexual playboy also predicted

higher levels of rape myth acceptance and hostile sexism but had no significant effect on benevolent sexism.

In light of these findings, this is one of the first known studies to have empirically documented a link between masculinity-related variables and outcomes related to sexual violence perpetration among male athletes. While there was no support generated for the impact of hazing on sexually violent attitudes, this study strengthened the body of research showing that conformity to traditional masculine norms among men predicts greater sexism (e.g., Fox & Tang, 2014) and attitudes that justify or minimize rape (e.g., Locke & Mahalik, 2005; Seabrook et al., 2018), and it was one of the first studies to do so with a sample made up entirely of Division I male athletes. Of course, one of this study's primary objectives involved using an experimental design to break from the trend of relying heavily upon cross-sectional methods within PMM research (Whorley & Addis, 2006). It was, therefore, somewhat disappointing to unintentionally reinforce this trend, as experimental effects were non-significant while significant relationships emerged between a supposedly stable measure of masculine norm conformity and all three outcomes after holding experimental conditions constant. Nevertheless, these significant effects are still meaningful, given their congruence with prior research as well as the ways in which they fill gaps across various bodies of literature.

The current study's findings largely align with other evidence showing that adherence to certain social norms of masculinity among men predicts their acceptance of rape myths. Prior studies, for example, have similarly shown that men who conform to the masculine norm of justifying or rationalizing violence are more likely to subscribe to myths about rape (Locke & Mahalik, 2005), many of which rationalize sexual violence by blaming rape victims (McMahon & Farmer, 2011). This study's findings also align with prior research showing that men's

conformity to the norms of having power over women and heterosexual self-presentation (previously referred to as “disdain for gay men”) predict higher rape myth acceptance (Le et al., 2020; Locke & Mahalik, 2005). Finally, previous research has similarly documented the impact of adherence to the masculine norm of being a sexual playboy on one’s acceptance of rape myths (Cole et al., 2020), although it is worth noting that other studies have found this relationship to be non-significant (e.g., Le et al., 2020). Given that this is the first known study to have documented these relationships among Division I male athletes, these findings hold important implications for sexual violence prevention programming sport (discussed further below). They also expand the body of scholarship on masculine norms in sport which has previously shown that greater adherence to masculine norms among athletes is associated with higher drive for muscularity (Steinfeldt et al., 2011), greater identification with the athlete role (Steinfeldt & Steinfeldt, 2012), and increased stigmas toward help seeking (Ramaeker & Petrie, 2019).

The current study also found support for positive links between conformity to different masculine norms and higher levels of sexism. This was, once again, the first known study to document these relationships with this particular population of interest. Division I athletes in the current study who conformed to the masculine norms of violence, power over women, and heterosexual self-presentation also reported higher levels of both hostile and benevolent sexism when holding experimental conditions constant, while conformity to the norm of being a sexual playboy also predicted higher hostile sexism. These findings align with prior evidence of similar relationships among general populations of men (Fox & Tang, 2014) as well as the prior use of various sexism inventories to test convergent validity for different versions of the CMNI (e.g., Smiler, 2006).

That the current study found significant positive relationships between masculine norm adherence and sexist attitudes among male athletes is relatively unsurprising. Hegemonic models of masculinity typically include a rejection of and dominance over that which is deemed to be feminine (Connell & Messerschmidt, 2005), while sexism or homophobia are often higher among heterosexual men (Roper & Halloran, 2007) and can often be weapons men resort to using when their masculinity is threatened (O'Connor et al., 2017). However, it is also important to more fully understand the relationship between masculine norm conformity and sexism within the context of sport, in light of its historical and cultural significance in the United States.

Messner (1990), for example, wrote that,

“The modern institution of organized sport, as we now know it, emerged as a male response to social changes which undermined many of the bases of men’s traditional patriarchal power, authority, and identity. Proletarianization, urbanization, modernization...all served to undermine patriarchal forms of masculinity...[Over time], the conscious agency of women provided a direct threat to the ideology of male superiority...Sport was a male-created homosocial cultural sphere which provided (White, middle- and upper-class) men with psychological separation from the perceived ‘feminization’ of society, while also providing dramatic symbolic ‘proof’ of the natural superiority of men over women...It is not simply the bonding among men and the separation from women, but the *physicality* of the activity, which gives sport its salience in gender relations” (p. 204).

The work of Messner and other sociologists has shed light upon how sport has historically been a means by which men have sought to reclaim and hold tight to gendered power, significance, and dominance in the face of an increasingly inclusive and equitable world. In some respects, this sociological phenomenon resembles the psychological mechanisms articulated by the Theory of Precarious Manhood (Vandello & Bosson, 2013). Both seem to capture attempts by men – individually or culturally – to reassert gendered status or power when it is perceived to be under threat. In other words, male athletes are immersed from a young age into an added and deeply impactful layer of gendered and sexist socialization, beyond that which might be normally

encountered by boys and men who do not participate in sport. Perhaps this can help explain why male athletes in the current study who were more adherent to norms of violence, power, and avoidance of homosexuality (often conflated with femininity; Anderson, 2011) were also more likely to view women as subordinate, inferior, manipulative, or in need of protection (Glick & Fiske, 1996).

Finally, it is also worth noting how the significant relationships documented in the current study between different forms of masculine norm conformity, rape myth acceptance, and sexism among male athletes collectively encapsulate and reflect most of the components of rape culture as it has been traditionally defined (Burt, 1980). In their recent attempt to generate empirical support for a proposed “model” of rape culture, Johnson and Johnson (2017) found that its main components include traditional gender roles, sexism (hostile and benevolent), hostility toward women, adversarial sexual beliefs, and acceptance of violence. The current study lends further support to the idea that most components of rape culture are not independent of one another but are inextricably linked and perhaps even mutually reinforcing. While structural equation modeling or hierarchical confirmatory factor analysis were not used in the current study to replicate or expand upon these findings, many of the same measures (CMNI-46; ASI) were used, and results lend further support to Johnson and Johnson’s (2017) model.

The Interaction of Hazing Exposure and Masculine Norm Conformity

This study’s third aim focused on the potential moderating role of masculine norm conformity on the relationship between hazing exposure and sexist and sexually violent attitudes. As noted previously, it is possible for interaction effects to emerge in a study even in the absence of any main effect related to the experimental conditions (Tabachnick & Fidell, 2019). Nevertheless, in the current study, results failed to lend any support to most of the hypotheses

pertaining to potential moderation. With the exception of two interactions between a single experimental condition and conformity to a particular masculine norm, most of these relationships were non-significant when it came to their impact on male athletes' self-reported levels of rape myth acceptance or hostile/benevolent sexism.

The two findings that did reach significance were admittedly difficult to interpret. In the first, conformity to the masculine norm of violence moderated the relationship between exposure to the Touch hazing condition and participants' self-reported levels of hostile sexism. Contrary to expectations, however, conformity to this norm slightly attenuated the effect of this hazing condition, compared to participants in the Control group, rather than amplifying it. As shown in Figure 3, participants who reported low-to-medium levels of conformity to the masculine norm of violence reported comparable levels of hostile sexism across all four hazing conditions. As expected, levels of hostile sexism trended upwards as levels of conformity to violence increased for participants randomized to the Alcohol, Nudity, and Control hazing conditions. However, participants randomized to the Touch hazing condition who endorsed high conformity to the masculine norm of violence reported significantly lower levels of hostile sexism compared to other groups.

It is difficult to make sense of this finding, especially since the Touch and Nudity hazing conditions had relatively similar vignette content, and yet appeared to interact with participants' conformity to violence in different ways. Had levels of hostile sexism been significantly higher in the Touch condition than other conditions for participants with greater conformity to the norm of violence, perhaps one could deduce that the addition of sexual touch provokes an increase in hostile sexism for participants with high conformity to violent norms. However, this was not the case. Instead, inspection of Figure 3 shows that levels of hostile sexism within the Touch hazing

condition do not appear to vary considerably across conformity to violence scores (i.e., the slope of this line was closer to zero than that of other lines). Furthermore, the significance of this interaction only reflects a significant difference between the Touch condition and Control condition. One likely explanation for this finding, therefore, is that the number of moderation analyses conducted in this study increased the likelihood of Type I error. In other words, it is possible that this was simply a spurious finding that emerged by random chance.

The second significant interaction concerned the moderating effect of conformity to the masculine norm of heterosexual self-presentation on the relationship between the Nudity hazing condition and benevolent sexism. Figure 4 shows that participants in the Control group reported relatively similar levels of benevolent sexism across low, medium, and high heterosexual self-presentation scores. The line corresponding to the Nudity hazing condition, however, shows that participants higher in conformity to the norm of presenting oneself as heterosexual had significantly higher benevolent sexism scores.

It is possible, of course, that this interaction was also due to Type I error, given that only one experimental group reached statistical significance and the Touch condition (again, relatively similar in vignette content to the Nudity condition) corresponded to lower benevolent sexism scores across masculine norm conformity. Nevertheless, Figure 4 does reflect an approximation of the broader hypothesis in this study, given that the lines corresponding to the three violent hazing conditions trend similarly, in ways distinct from the control group. Therefore, it is also possible that this finding was not, in fact, due to Type I error. Considering this possibility, it could be the case that the Nudity condition evoked higher benevolent sexism for participants with greater conformity to heterosexual self-presentation due to unique anxieties among these athletes related to homophobia or “homohysteria” (see Anderson, 2011). This, of course, does

not explain why participants in the Touch condition (also involving nudity, in addition to shaving a teammate's genitals) did not respond in similar ways. However, it may be that the Touch condition elicited lower benevolent sexism scores for heterosexually self-presenting participants because the vignette included behavior perceived to be relatively more masculinized (shaving) compared to the behavior depicted in the Nudity condition (singing). This explanation, however, is purely speculative, especially given that almost all other interactions were non-significant.

Collectively, results of this study suggest that masculine norm conformity may not interact with exposure to hazing vignettes in significant ways to moderate a relationship between such exposure and sexist or sexually violent attitudes. This is not the first study in recent years that failed to find a significant interaction between conformity to masculine norms and a supposed gender threat. Braly and colleagues (2018), for example, also administered the CMNI-46 to 128 men prior to randomly assigning them to experimental "gender threat" conditions and subsequently measuring aggressive driving behavior. Similar to the current study, Braly et al. (2018) found no significant interactions between masculine norm conformity and a masculinity threat when it came to the outcome variables of interest. Other research exploring the moderating influence of conformity to masculine norms on the effects of a gender threat has been mixed. Some studies have found interactions that were significant (Parent & Cooper, 2019), while others found interaction effects that trended toward significance (Hunt et al., 2013; $p = .06$; $d = 0.56$).

The variability of these findings within masculinity research and the lack of significant effects across most interactions in the current study raises the possibility that there are limits to which different masculinity paradigms can be integrated (see Addis et al., 2016). In other words, while researchers have had success (Parent & Cooper, 2009) in testing the Precarious Manhood thesis (Vandello & Bosson, 2013) and its interaction with masculine norm conformity (Mahalik

et al., 2003), there may be some contexts and issues in which these paradigms should be studied separately. It might also be worthwhile to consider whether these manifestations of masculinity might sometimes function orthogonally or independently of one another.

One way to understand this might be to consider the underlying assumptions of these research paradigms more closely. For example, conformity to masculine norms, as measured by the CMNI-46, has often been characterized as a masculinity “ideology” (Thompson & Bennett, 2015). It follows a long line of masculinity research that has “effectively [reduced] the social construction of masculinity to an individual difference ‘variable’” (Addis et al., 2016, p. 84) – a trend that, perhaps inadvertently, characterizes masculinity as something that is stable or even trait-like in nature (Addis et al., 2010). And while the CMNI-46 was originally developed to assess “the affective, behavioral, and cognitive dimensions of masculine gender role norms” (Mahalik et al., 2003, p. 5), the truth remains that the items that measure affective and behavioral dimensions of masculinity are still measured via self-report (Thompson & Bennett, 2015). As such, the CMNI-46 and other measures like it are more equipped to capture participants’ relatively stable *beliefs* about masculinity or cognitive engagement with masculinity than they are to capture the moment-by-moment affective, physiological, or behavioral aspects of how masculinity is experienced or constructed, especially when one’s gender status is threatened. On the other hand, research on Precarious Manhood and other similar paradigms such as the Masculine Overcompensation Thesis (Willer et al., 2013) are more concerned with the effects of these gender threats – namely, how men react when they are made to *feel* in any given moment as though their social status as a man is suddenly called into question. This includes studies that have measured cortisol reactivity to a gender threat, focusing on “how hegemonic masculinity gets ‘under the skin’” (Himmelstein et al., 2018, p. 491).

Distinguishing the more stable (and cognitive) dimensions of masculinity from its more situational (and affective) dimensions might allow us to imagine ways in which these phenomena can, and often do, function independently of one another. Consider, for example, the case of a heterosexual male athlete (“Jay”) who describes himself as someone who generally does not rigidly adhere to traditional masculine norms. In other words, he believes in the value of embodying a version of masculinity that is relatively non-restrictive and non-traditional. Jay’s CMNI-46 scores reflect a similar story: He reports that he talks about his feelings openly with others, that he readily asks for help when he needs it, that he does not believe violence is ever justified, that he does not put a lot of energy into “pursuing” a high number of sexual partners, and that he would not be uncomfortable if others thought he was gay.

While there is no reason to doubt the picture of masculinity that Jay self-reports, he also shares that, as much as he generally tries to embody this version of manhood, he sometimes finds this difficult, especially under certain circumstances or in specific social contexts. Whenever he is around his teammates, for example, it feels particularly hard for him to avoid being somewhat influenced by the perceived pressures of “masculine norm conformity” swirling around him. He finds himself forcing a chuckle when teammates make rape jokes to avoid being seen as “overly serious” or disruptive of the status quo (see Curry, 1991). He avoids any mention to his teammates that he has been feeling depressed in recent weeks (see Ramaeker & Petrie, 2019). He catches himself blurting out comments like “At least I’m not the one wearing pink” when a teammate jokingly questions his sexuality (see Adams, 2011). In other words, the fullness of Jay’s experience within and around masculinity is not easily captured by a self-report questionnaire designed to measure relatively stable tendencies. Instead, it reflects ways in which he is both adheres to and transgresses social norms, as well as ways in which he is constantly

involved in the co-construction of masculinities as he navigates his world interpersonally (Addis et al., 2016). While Jay admits to feeling cognitive dissonance around some of his behaviors, he still finds it difficult to resist them when he is in a situation in which he feels his gender status is being threatened or susceptible to threat. In other words, Jay's generally low conformity to masculine norms as measured by the CMNI-46 (e.g., cognitive, ideological, or behavioral dimensions of his masculinity) sometimes may have little to do with the pressure he feels (e.g., affective, physiological, and some cognitive dimensions of masculinity) to assert or restore his gender status when he encounters situation or contexts in which he feels it could be, or is being, called into question.

While contrived, this case example is one of many that could explain why a construct like masculine norm conformity at times may not influence how someone reacts to a masculinity threat in any given situation or context. Jay's personal experiences also highlight some ongoing complexities and tensions when it comes to how the social construction and social learning of masculinities have traditionally been studied. Addis and colleagues (2016) summarized these tensions as follows:

...Gender is a fleet moving target from a social constructionist perspective, whereas the quantitative approaches traditionally used in the psychology of men are not prepared to capture rapidly changing (e.g., nonlinear, potentially chaotic) processes...From a truly social constructionist perspective, gender is perhaps best seen as an *improvised performance* that is highly malleable, fluid, and socially situated. From a social psychological, norms-based perspective, gender is more akin to a predefined script that substantially constrains the roles, ideologies, and belief systems of individual actors (p. 95, italics added).

In their chapter, Addis et al. (2016) also entertained the possibility of integrating different masculinity paradigms but note that they “view this as a highly ambitious and perhaps unachievable option” (p. 95). Their recommendations for scholars attempting to do so include first identifying gender norms that are more context-specific, which may also explain why the

current study's use of a more general conformity to masculine norms measure may not have captured important sport-specific moderators. Similarly, the hypothetical vignettes used here may not have captured important contextual elements when it comes to hazing within male sports. For example, even if the violent hazing conditions in the current study were in fact perceived by some male athletes as threatening, there may be a host of other possible variables at play, including but not limited to: sport-specific, or even team-specific, masculine norms related to drinking, nudity, or physical touch; prior experiences of hazing victimization; other relevant ideological constructs (e.g., social dominance orientation, just world beliefs); and idiosyncratic cultural factors that exist within a given team.

Exploratory Findings Related to Sport Type and the Impact of Hazing on Positive Affect

One noteworthy finding from this study's exploratory analyses concerned the impact of hazing exposure on participants' self-reported state affect. While there was no significant difference in negative affect between participants in the three violent hazing conditions and those in the Control group, the latter reported significantly greater levels of positive emotionality compared to the rest of the sample.

This finding has two noteworthy implications. First, it shows that vignette-based studies like this can and do arouse or provoke emotions in men (even if those are positive feelings), accentuating the aforementioned ways in which masculinity is not just an ideological or cognitive construct, but also one that stimulates affect (cf. Vandello et al., 2008). Second, it lends further support to the positive effects of prosocial forms of "hazing" or initiation (e.g., team-building activities, canoeing, rock climbing), including ways in which these activities can build team cohesion, humanize participants, and deepen relationships among group members (Johnson & Chin, 2016). While the current study may not have added to the growing body of evidence

showing the damaging effects of abusive or violent hazing (e.g., Finkel, 2002; Van Raalte et al., 2007), it does highlight the benefits of initiation practices that do not seek to demean, humiliate, or abuse.

A second, and more robust, set of findings from this study's exploratory analyses concerned the influence of different types of sport – namely, whether an NCAA male athlete participated in a team/individual sport or a contact/non-contact sport. Results showed that, compared to athletes in individual sports, athletes in team sports endorsed greater conformity to the masculine norms of violence and heterosexual self-presentation. Furthermore, athletes in contact sports, compared to those in non-contact sports, also endorsed greater conformity to the norms of violence and presenting oneself as heterosexual. Type of sport was also examined as a predictor of levels of rape myth acceptance and sexism. While athletes in team and contact sports did report higher levels of rape myth acceptance than athletes in individual and non-contact sports, these differences did not reach statistically significant levels. Nevertheless, there were significant differences across sport type when it came to levels of hostile and benevolent sexism, as team-sport and contact-sport athletes endorsed these sexist attitudes at higher levels than their counterparts.

These findings add to evidence from prior studies showing that, when it comes to issues related to masculinity, sexism, and sexual violence, athletes and sports are not monolithic (Gage, 2008; Forbes et al., 2006; Humphrey & Kahn, 2000; Sawyer et al., 2002). Sawyer and colleagues (2002), for example studied a sample of 704 college athletes and found that male athletes who played team sports endorsed higher levels of rape myth acceptance than those in individual sports. Studies have also shown that college men who participated in “aggressive” or high-contact sports (e.g., football, basketball, wrestling, soccer) in high school reported engaging in

higher levels of sexual coercion and aggression toward dating partners than men who did not participate in high school sports or who participated in “non-aggressive sports” such as golf, track and field, and tennis (Forbes et al., 2006). Furthermore, similar to some findings from the current study, athletes in aggressive sports have also been previously shown to exhibit higher levels of hostile/benevolent sexism and rape myth acceptance (Forbes et al., 2006).

The re-emergence of these disparities across sports within different studies can perhaps lend some credence to theories that might characterize certain types of sport as “training grounds for sexism, misogyny, violence, and homophobia” (Forbes et al., 2006, p. 449). However, it is also important to acknowledge that some studies have found no support for the idea that contact sport athletes are more sexually violent than athletes in non-contact sports (Brown et al., 2002; Smith & Stewart, 2003). Furthermore, if differences do exist between types of sport, questions remain concerning the underlying mechanisms at play. Scholars have rightly acknowledged that the reasons for these attitudinal or behavioral differences in sexual violence across types of sport remain unclear (e.g., “Does the type of sport help shape the individual or do pre-existing traits influence the person’s choice of sport?”; Sawyer, et al., 2002, p. 23). For example, the current study does, in fact, suggest that team sports and contact sports are also populated by men who endorse greater conformity to certain masculine norms (e.g., violence, heterosexual self-presentation). Yet, it is again unclear as to whether these types of sport attract men with higher levels of masculine norm conformity, provide cultures that foster and reinforce this particular brand of masculinity, or whether this represents a recursive relationship in which both are true.

Study Limitations

Despite its contributions to the literature on MASV, this study had several noteworthy limitations, all of which should be considered when interpreting the findings. First, while

representative in terms of types of sport, the sample was strikingly homogenous in some ways, especially with regard to racial/ethnic identity (approximately 80% White) and sexual orientation (approximately 95% heterosexual). Representation of male athletes of color in this sample, for instance, was noticeably lower than other similar quantitative studies that have explored the issue of MASV among college populations (e.g., Gage, 2008; Sawyer et al., 2002; Young et al., 2017). Of note, this sample was especially non-representative when it comes to the racial makeup of high-revenue Division I male sports such as football and basketball. In the current study, only 9% (two out of 23) of football players and zero (out of nine) basketball players identified as Black or African American. These statistics stand in stark contrast to the actual NCAA-wide data gathered and published annually by The Institute for Diversity and Ethics in Sport, which recently found that Black or African American men represent approximately 45% of Division I football players and 53% of Division I men's basketball players (Lapchick, 2021).

It was appropriate that the current sample comprised predominantly heterosexual men, given the nature of the issue at hand (e.g., sexual violence against women), although it remains important to acknowledge that men who identify within LGBTQ+ communities can still endorse and perpetuate sexism and myths about rape within the various systems in which they exist (Diamond-Welch et al., 2017). Furthermore, controlling for sexual orientation did not significantly alter any of the current findings. Nevertheless, the current study was not able to adequately address the role of race as it relates to the construction of masculinities in sport or the issue of MASV. From a statistical standpoint, attempting to explore differences across racial groups would have likely necessitated “collapsing” or grouping all athletes of color together, thereby counterproductively erasing many identities and experiences.

In light of this limitation, it could be important to view these findings as largely reflective of White heterosexual masculinities in sport (Anderson, 2011; Messner, 1990). Of note, there is no way of knowing whether this study's findings would have been different with a more (or less) racially diverse sample. Acknowledgment of this particular limitation should in no way be interpreted to suggest that a more racially diverse sample of athletes would have yielded different results. Instead, it is merely important to consider whether the current findings are a function of White masculinities, rather than masculinity more broadly. For this reason, future studies should examine these relationships using more diverse samples and efforts should also be made to ensure that questionnaires are appropriately normed on the population of interest. For example, the three primary measures used in this study – the Conformity to Masculine Norms Inventory-46 (Parent & Moradi, 2009), the Ambivalent Sexism Inventory (Glick & Fiske, 1996), and the revised version of the Illinois Rape Myth Acceptance scale (Farmer & McMahon, 2011) – were all developed via initial studies using predominantly White samples. While subsequent studies have found cross-cultural similarities in how the constructs measured by these scales are experienced (e.g., Mahalik et al., 2006), no known studies used student-athletes as a norming group, and erasure of nuance and intersectionality remains one of the perpetual shortcomings of this research, and quantitative/positivistic research more broadly.

Although it was not the primary focus of this study, it is vitally important to acknowledge the role that race and other forms of intersectionality play in shaping men's experiences, including but not limited to how they construct and navigate masculinities and other aspects of their gendered lives. For example, research has found both similarities and differences in how some men of color and White men conceptualize and relate to traditional masculine ideologies (Lease et al., 2010). Further, many (if not all) forms of White male violence are often uniquely

shaped by racialized aspects of privilege, entitlement, and power (Scaptura, 2019). Finally, understanding the issue of MASV also requires an awareness of the different ways in which rape has been wielded as a tool of racial oppression. While rape has been historically used by White men as a means of racial subjugation, false allegations of rape against Black men by White women have also historically served to reassert racialized hierarchies, while perpetuating racist tropes of Black sexuality as violent and White sexuality as pure (Patton & Snyder-Yuly, 2007).

In addition to limitations related to a racially homogenous sample, this study also may have had limitations regarding its recruitment process more broadly. As much as the sample was representative in terms of NCAA sports (17 total) and perhaps even institutions (16 total), this broad data collection could have actually hindered this study's capacity to detect meaningful relationships among some variables. Representation from schools, for example, ranged from only two athletes from one institution to 40 athletes from another institution, with seven other schools contributing at least 10 athletes to the sample. Due to the wide range of representation from schools, it was not feasible to control for school or conduct within-school analyses. And while conditions were relatively balanced for schools with more participants, schools with fewer participants were inevitably less balanced across conditions. Furthermore, collapsing so many different male athlete experiences into one sample potentially resulted in the erasure of important factors related to the issue of MASV. For example, athletes who belong to NCAA teams, athletic departments, or institutions with more extensive histories and cultures of violent hazing practices may have responded to these vignettes differently than athletes from teams or schools where hazing rituals were not common. Future studies that can secure balanced representation with larger samples sizes across multiple schools and conduct cluster analyses with data like this using teams or other groupings (e.g., Humphrey & Kahn, 2000) could be beneficial.

As noted previously, the online nature of this study also posed limitations and introduced a number of possible confounds, including athletes being isolated away from their teammates while completing the survey (thereby distanced from the psychological influences of their team culture), and also being able to pause their completion of the survey at any time. Future replication efforts that can conduct an in-person version of this study in which athletes on a given team complete the survey at the same time and in the same room could potentially alleviate some of these confounding factors.

The timeline of data collection for this study also merits consideration as a limitation, as most of the athletes who ultimately chose to participate in this study did so after the onset of the global COVID-19 pandemic and, more specifically, after their NCAA seasons were abruptly cut short. While there is still limited understanding of the psychological impact of COVID-19 on college student-athletes, preliminary evidence points to a number of emerging detrimental outcomes (Johnson, 2021). It is, therefore, worth considering whether athletes' responses to any of the questionnaires (or even willingness to participate in this study) could have been influenced by ongoing mental health-related concerns (e.g., anxiety, depression, grief, trauma), anger or resentment toward the decision to cancel seasons, or abnormalities in their typical schedules, routines, and frequency of interaction with teammates.

Social desirability as a response bias constitutes another limitation within most studies on sexual violence. The current study sought to control for social desirability by including the Bidimensional Impression Management Index (BIMI) scores as a covariate in all analyses. However, it is worth noting that BIMI scores were significantly and negatively correlated with three of the study variables (see Table 5; hostile sexism and two subscales of the conformity to masculine norms measure: violence and being a sexual playboy). Furthermore, most approaches

to accounting for social desirability treat it as a general measure of individual differences rather than a construct which might vary across situations. In other words, BIMI scores in the current study were not able to account for how different experimental conditions could have been associated with subsequent socially desirable response patterns. While there were no significant differences in BIMI scores across conditions (indicating that random assignment worked to minimize any confounding effect of general impression management tendencies), the current study afforded no means of determining whether any or all of the conditions elicited changes in such response biases.

A final and highly notable study limitation emerges when one takes into account the considerable resistance encountered throughout this study's recruitment process, on the part of athletic departments, who seemed to show little to no interest in helping to recruit athletes for a study on hazing and sexual violence. In the initial stages of recruitment (across three or four winter months before the COVID-19 pandemic began), Division I athletic departments around the country (more specifically, psychologists and other mental health professionals within those departments) were contacted and asked if they would help to distribute the survey link to their athletes. However, only one out of 16 athletic departments originally contacted ultimately helped with recruitment, yielding merely 16 out of the final 204 participants (largely recruited through other methods). Most responses from these departments ranged from requesting more materials for review but never following up after study materials were provided, no response at all despite multiple requests, or curt rejections out of reluctance to "over-burden" the athletes.

This concerning pattern across institutions reflects a deeply disappointing reality within intercollegiate athletics when it comes to the access granted to address, or even study, the issue of sexual violence in sport. Scholars have described this access as "very difficult" to obtain and

requiring “a great deal of trust between institution and researcher” (Sawyer et al., 2002, p. 20).

While this may be true, many of the mental health professionals who were originally contacted in this study were colleagues of the lead researcher, suggesting that personal “trust” may not outweigh more powerful institutional forces at play. Nevertheless, with so many college athletic departments in recent years presenting a “no tolerance” stance around sexual violence and a commitment to confronting this issue, it is worth noting here how departments respond when given opportunities to show that commitment in ways that are less publicly visible. It is also worth noting the low likelihood that an issue like MASV will ever be effectively addressed as long as these institutional barriers persist.

Future Directions for Research

The current study sought to address a glaring gap in the literature on MASV that remains in need of continued research – namely, the psychosocial and cultural factors in sport that underlie or contribute to the issue of MASV, given that the vast majority of research conducted thus far has merely studied whether male athletes are more at-risk than other groups. Future research should continue to explore connections among different forms of male violence. In a recent paper on the global public health issue of male violence (not limited to sport), Fleming et al. (2015) discussed the ways in which different forms of male interpersonal aggression (e.g., against women and against other men) share common underlying mechanisms tied to traditional masculine norms. The authors argued for more integrated, rather than segmented, approaches to violence prevention that can target these shared mechanisms.

While this study failed to find links between exposure to these hazing vignettes and outcomes related to sexual violence, further research is needed on hazing, other dimensions of masculinity, and “locker room culture” in sport (Cole et al., 2020; Curry, 1991). Hazing, for

instance, was viewed in the current study as a ritualized and readily identifiable exemplar of the much more pervasive issue of abusive and harassing behavior among men, and especially men in sport. A review of limited literature on locker room culture suggests that it is often characterized by a rejection and degradation of that which is “feminine,” a proving ground for that which is “masculine,” and an arena in which men engage in patterns of competition, status attainment, harassment, and boundary violations with each other as a means of establishing and maintaining gendered status and power (Curry, 1991; Kane & Disch, 1993; Schacht, 1996). Therefore, due to its ceremonial nature and the growing body of research on its consequences, hazing was deemed to be a proxy for a more ubiquitous class of abusive social practices in sport that merit further study. One methodological modification that researchers could explore in the future would be to employ different forms of “exposure.” For example, it would be important to know if the vignettes used in the current study (or similar vignettes) would be more likely to elicit reactions if they were depicted in a video format (perhaps even using scenes from films that depict hazing activities among men).

Future research might also explore other sexual violence-related outcomes of hazing. For example, most studies on masculine norm conformity (Wong et al., 2016) conceptualize this variable as a predictor and examine associated outcomes. Interestingly, few if any known studies have explored whether conformity to masculine norms is situationally responsive in ways that other studies have tested sexually violent attitudes (e.g., Emmers-Sommer et al., 2006; Franiuk et al., 2008). In other words, masculine norm conformity is, as noted previously, usually treated as a stable measure of individual differences. It would be interesting to explore whether exposure to the hazing vignettes in the current study or other similar stimuli might impact the degree to which male athletes self-report their adherence to masculine norms. Such a relationship could

possibly be mediated by state affect (Watson et al., 1988) or beliefs about manhood being precarious (Vandello et al., 2008).

In considering the lack of significant interaction effects throughout most of this study between hazing conditions and conformity to masculine norms, future research on the effect of other possible moderators may also be worthwhile. While masculine norm adherence did not moderate the impact of hazing exposure on sexism or rape myth acceptance, other markers of sexually aggressive attitudes or masculinity-related ideologies could be more salient. For example, future studies could explore the role of sexual narcissism (Widman & McNulty, 2010) or sexual entitlement, the latter of which has previously been found to mediate links between masculinity and rape-related outcomes (Hill & Fischer, 2001). Another example of a potential moderator could be the Precarious Manhood Beliefs Scale introduced initially by Vandello and colleagues (2008) and validated more recently – a seven-item measure assessing the degree to which respondents agree with statements such as, “*A male’s status as a ‘real man’ sometimes depends on how other people view him.*” Measuring beliefs such as this could offer another way of capturing individual differences in how male athletes responded to these hazing conditions.

Lastly, future research should explore the issue of MASV more broadly across the lifespan and psychosocial development of boys and men. Some previous studies, for instance, have examined participation in high school sports (as opposed to college) as a predictor of sexual aggression (Forbes et al., 2006). It is important for future research to study these issues using younger samples, given the ways in which masculinities, sexism, misogyny, and attitudes that objectify women are often socialized from a very young age.

Implications for Practice and Sexual Violence Prevention in Sport

It should be noted that this was not a study on sexual violence prevention (SVP) practices in sport, so any discussion of “implications for practice” must be considered accordingly. Nevertheless, collectively, findings from this study can potentially offer several important implications when it comes to both clinical practice and SVP programming with male athletes. First and foremost, this study’s results add to the growing body of literature documenting the ways in which masculinity-related factors contribute to the issue of sexual violence perpetrated by men (e.g., Cole et al., 2020; Tharp et al., 2013). The current study is one of few to have extended this scholarship into the context of male sport. As such, those who work with male athletes in the capacity of therapist, psychologist, sport psychology consultant, or professionals who develop and deliver SVP programming in sport should be mindful of not if but how they address masculinity within their work. This is especially true given the many ways sport can be a prominent space within which the construction and socialization of masculinities unfolds (Messner, 2002). Interestingly, research suggests that this holds true regardless of whether or not one is participating in sport or even merely watching (Brown et al., 2002). While significant main effects related to hazing on sexist or sexually violent attitudes were not part of this study’s findings, conformity to various masculine norms was shown to be a significant predictor of both rape myth acceptance and different forms of sexism. As both of these attitudinal variables have been linked (at times even causally) with the perpetration of rape and other forms of sexual violence (Bohner et al., 2005; Forbes & Adams-Curtis, 2001; Locke & Mahalik, 2005; Tharp et al., 2013; Yapp & Quayle, 2018), professionals should be aware of the role of masculine norm adherence as one factor contributing to these attitudes.

Supporting the practical implications of the current study's findings, results from a 2005 meta-analysis of SVP programs with North American college students revealed that these programs "tend to be more effective when they are longer, presented by professionals, and include content addressing risk reduction, *gender-role socialization, or provision of information and discussion of myths and facts about sexual assault* (Anderson & Whiston, 2005, p. 385, italics added). Nevertheless, a more recent systematic review of prevention programming for sexual violence perpetration arrived at the disconcerting conclusion that, while progress is being made, "the vast majority of preventative interventions evaluated to date have failed to demonstrate sufficient evidence of impact on sexual violence perpetration behaviors" (DeGue et al., 2014, p. 356). The review also found that, all too often, SVP programs fail to include content focused on masculinity. Despite recurring meta-analytic and systematic review evidence (e.g., Murnen et al., 2002; S nderlund et al., 2014; Tharp et al., 2013) linking sexual violence perpetration with men and masculinity, such factors (e.g., gender role adherence, hypermasculinity, hostility toward women) are "rarely addressed directly in prevention programs" (Degue et al., 2014, p. 358).

Here, the world of college sports has been no exception. In 2016 and 2019, the National Collegiate Athletic Association (NCAA) published versions of a resource titled "*Sexual Violence Prevention: An Athletics Tool Kit for a Healthy and Safe Culture.*" While contents of the tool kit include some of the conventional programming aimed at bystander intervention and the promotion of healthy and consensual sexual practices (Beres, 2014; DeGue et al., 2014; McMahon & Banyard, 2012), the publication includes only a single reference to masculinity within its pages, included amid assorted supplemental resources. It is, therefore, important to highlight that results of the current study make it clear that masculinity-focused content should

be included within SVP programming in sport moving forward. Furthermore, the current study's findings also suggest that such programming could be especially relevant for athletes participating in team and contact sports, although this does not imply that athletes in other sports should be excluded from this work.

Of course, when applying studies like this to prevention and intervention efforts, care should be taken by practitioners to avoid characterizations of “masculinity” as something broadly or inherently unhealthy, problematic, or predictive of sexually violent attitudes or behavior. For one, the current study only explored male athletes' adherence to certain norms of masculinity (violence, power over women, being a sexual playboy, maintaining a heterosexual self-presentation), while evidence suggests that adherence to other masculine norms (e.g., winning) is, in fact, negatively associated with outcomes such as rape myth acceptance (Le et al., 2020).

However, even when discussing any of these norms, recent societal rhetoric (e.g., Barber et al., 2019) suggests that it is important for clinicians and other professionals to approach masculinity-related work with nuance and a broader background understanding of the literature to avoid miscommunicating research findings, and thereby potentially alienating, an audience. Too often, findings from masculinity research are somehow wrongly received by those unfamiliar with this literature as a calculated assault on men, or an attempt to broadly pathologize and denounce masculinity as something that is inherently evil, toxic, or violent (Barber et al., 2019). Of course, reactions like this are anticipated whenever patriarchal structures (or other systems of power) are challenged, or the status quo is questioned, and are often means by which those in power attempt to gaslight, weaponize their “victimization,” and reassert control. Nevertheless, in order to ensure that research findings on violent outcomes associated with masculinity are accurately understood by an audience (e.g., client, team), practical

implications from a study like this include the importance of disseminating research in effective ways. When it comes to research on masculinity, this includes, but is not limited to: (1) framing discussions around masculinity “in context” (Addis & Hoffman, 2019), (2) highlighting the existence of myriad “masculinities,” and (3) using language consistent with theories of social learning and social constructionism, rather than language that intentionally or unintentionally perpetuates essentialist ideas about gender (Addis et al., 2010).

Conclusion

The current study deepens our understanding of MASV in ways that can inform the content and scope of SVP research and programming in sport. Significant findings emerged related to the role of masculine norm conformity in predicting sexist and sexually violent attitudes among male athletes, the impact of hazing exposure on their state affect, and differences across types of sport when it comes to masculinities and sexist attitudes. Finally, even though experimental effects from the hazing vignettes in the current study were largely non-significant, exploring this manifestation of masculinity in sport opens doors for future research on similar phenomena. By virtue of focusing largely on stable individual difference variables, prior research on sexual violence (among athletes or the general population of men) has often, perhaps unintentionally, conveyed the idea that there are certain “types” of men who rape, and other men who do not. While this may be partly true, rigid adherence to this idea disregards the very real ways in which most men, and most human beings, participate in and contribute to various components of rape culture throughout our lives (Johnson & Johnson, 2017). Therefore, by aligning this study and others like it with principles of social constructionism (Murnen, 2015) and acknowledging the ways in which men and others are active “creators of gender rather than

passive recipients and enactors of gender roles and norms” (Addis et al., 2016, p. 82), issues like MASV can be more effectively addressed.

Appendix A
Remaining Tables (Tables 9-27)

Table 9.

Summary of hierarchical regression of rape myth acceptance on hazing and conformity to violence

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	1.02
(Constant)	2.34	.21	11.14	.00	1.92	2.75			
Dummy Alcohol	.14	.12	1.22	.23	-.09	.37			
Dummy Nudity	.08	.12	.65	.52	-.16	.31			
Dummy Touch	.05	.12	.44	.66	-.18	.28			
BIMI	-.08	.05	-1.50	.14	-.18	.03			
Model 2							.07	.04	9.87*
(Constant)	1.53	.33	4.63	.00	.88	2.18			
Dummy Alcohol	.13	.11	1.11	.27	-.10	.35			
Dummy Nudity	.05	.11	.45	.66	-.18	.28			
Dummy Touch	.05	.11	.44	.66	-.18	.28			
BIMI	-.04	.05	-.71	.48	-.14	.07			
Violence	.25	.08	3.14	.00	.09	.41			
Model 3							.08	.05	1.15
(Constant)	1.24	.50	2.48	.01	.25	2.22			
Dummy Alcohol	.78	.60	1.30	.19	-.40	1.96			
Dummy Nudity	.06	.59	.11	.92	-1.10	1.23			
Dummy Touch	.97	.64	1.52	.13	-.29	2.22			
BIMI	-.06	.06	-1.01	.31	-.16	.05			
Violence	.39	.16	2.35	.02	.06	.71			
Violence x Alcohol ^a	-.25	.22	-1.12	.27	-.68	.19			
Violence x Nudity ^a	-.01	.22	-.06	.96	-.44	.42			
Violence x Touch ^a	-.35	.24	-1.46	.15	-.82	.12			

Note. N = 204; DV = Rape Myth Acceptance; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 10.

Summary of hierarchical regression of rape myth acceptance on hazing and conformity to power over women

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	1.02
(Constant)	2.34	.21	11.14	.00	1.92	2.7			
Dummy Alcohol	.14	.17	1.22	.23	-.09	.37			
Dummy Nudity	.08	.12	.65	.52	-.16	.31			
Dummy Touch	.05	.12	.44	.66	-.18	.28			
BIMI	-.08	.05	-1.50	.14	-.18	.03			
Model 2							.34	.32	94.12*
(Constant)	1.18	.21	5.64	.00	.77	1.60			
Dummy Alcohol	.04	.10	.45	.65	-.15	.23			
Dummy Nudity	.01	.10	.10	.92	-.18	.20			
Dummy Touch	.01	.10	.13	.90	-.18	.20			
BIMI	-.04	.04	-.85	.40	-.12	.05			
Power	.65	.07	9.70	.00	.52	.78			
Model 3							.35	.33	1.67
(Constant)	1.32	.26	5.02	.00	.80	1.84			
Dummy Alcohol	.22	.33	.67	.50	-.43	.86			
Dummy Nudity	-.35	.29	-1.20	.23	-.93	.23			
Dummy Touch	-.42	.33	-1.29	.20	-1.07	.23			
BIMI	-.03	.04	-.68	.50	-.12	.06			
Power	.54	.13	4.17	.00	.29	.80			
Power x Alcohol ^a	-.09	.19	-.48	.63	-.47	.29			
Power x Nudity ^a	.23	.17	1.30	.20	-.12	.57			
Power x Touch ^a	.28	.20	1.39	.17	-.12	.67			

Note. N = 204; DV = Rape Myth Acceptance; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 11.

Summary of hierarchical regression of rape myth acceptance on hazing and conformity to being a sexual playboy

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	1.02
(Constant)	2.34	.21	11.14	.00	1.92	2.75			
Dummy Alcohol	.14	.12	1.22	.23	-.09	.37			
Dummy Nudity	.08	.12	.65	.52	-.16	.31			
Dummy Touch	.05	.12	.44	.66	-.18	.28			
BIMI	-.08	.05	-1.50	.14	-.18	.03			
Model 2							.09	.07	15.17*
(Constant)	1.60	.28	5.76	.00	1.05	2.15			
Dummy Alcohol	.12	.11	1.10	.27	-.10	.34			
Dummy Nudity	.04	.11	.39	.70	-.18	.27			
Dummy Touch	.04	.11	.37	.71	-.18	.26			
BIMI	-.02	.05	-.43	.67	-.13	.08			
Playboy	.28	.07	3.89	.00	.14	.41			
Model 3							.10	.06	.40
(Constant)	1.68	.36	4.62	.00	.96	2.39			
Dummy Alcohol	.24	.39	.62	.53	-.52	1.01			
Dummy Nudity	-.24	.42	-.56	.58	-1.06	.59			
Dummy Touch	-.15	.38	-.40	.69	-.91	.60			
BIMI	-.02	.05	-.45	.66	-.13	.08			
Playboy	.24	.13	1.80	.07	-.02	.50			
Playboy x Alcohol ^a	-.06	.19	-.30	.76	-.43	.31			
Playboy x Nudity ^a	.14	.20	.68	.50	-.26	.53			
Playboy x Touch ^a	.10	.19	.53	.60	-.27	.47			

Note. N = 204; DV = Rape Myth Acceptance; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 12.

Summary of hierarchical regression of rape myth acceptance on hazing and conformity to heterosexual self-presentation

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	1.02
(Constant)	2.34	.21	11.14	.00	1.92	2.75			
Dummy Alcohol	.14	.12	1.22	.23	-.09	.37			
Dummy Nudity	.08	.12	.65	.52	-.16	.31			
Dummy Touch	.05	.12	.44	.66	-.18	.28			
BIMI	-.08	.05	-1.50	.14	-.18	.03			
Model 2							.31	.29	82.41*
(Constant)	1.17	.22	5.34	.00	.74	1.60			
Dummy Alcohol	.10	.10	1.02	.31	-.09	.29			
Dummy Nudity	.03	.10	.27	.79	-.17	.22			
Dummy Touch	-.03	.10	-.25	.80	-.22	.17			
BIMI	-.06	.05	-1.37	.17	-.15	.03			
Hetero	.48	.05	9.08	.00	.38	.59			
Model 3							.34	.31	2.50
(Constant)	1.32	.27	4.86	.00	.79	1.86			
Dummy Alcohol	.41	.37	1.11	.27	-.32	1.13			
Dummy Nudity	-.59	.34	-1.70	.09	-1.27	.09			
Dummy Touch	-.20	.39	-.52	.60	-.96	.56			
BIMI	-.07	.05	-1.46	.15	-.16	.02			
Hetero	.42	.10	4.13	.00	.22	.63			
Hetero x Alcohol ^a	-.13	.15	-.84	.40	-.43	.17			
Hetero x Nudity ^a	.26	.14	1.82	.07	-.02	.54			
Hetero x Touch ^a	.08	.16	.48	.63	-.24	.39			

Note. N = 204; DV = Rape Myth Acceptance; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 13.*Summary of hierarchical regression of hostile sexism on hazing and conformity to violence*

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.04	.02	1.82
(Constant)	3.61	.36	9.95	.00	2.89	4.33			
Dummy Alcohol	.24	.20	1.19	.24	-.16	.63			
Dummy Nudity	.23	.20	1.15	.25	-.17	.63			
Dummy Touch	.01	.20	.07	.95	-.39	.41			
BIMI	-.18	.09	-2.01	.05	-.37	.00			
Model 2							.13	.10	19.84*
(Constant)	1.67	.56	2.99	.00	.57	2.77			
Dummy Alcohol	.20	.19	1.06	.29	-.18	.58			
Dummy Nudity	.17	.19	.90	.37	-.21	.55			
Dummy Touch	.01	.19	.06	.95	-.37	.39			
BIMI	-.08	.09	-.93	.35	-.26	.09			
Violence	.60	.14	4.45	.00	.34	.87			
Model 3							.18	.14	3.91*
(Constant)	.85	.83	1.03	.30	-.78	2.48			
Dummy Alcohol	1.67	.99	1.69	.09	-.28	3.63			
Dummy Nudity	.28	.98	.29	.78	-1.65	2.21			
Dummy Touch	3.09	1.05	2.93	.00	1.01	5.17			
BIMI	-.14	.09	-1.54	.13	-.32	.04			
Violence	.99	.27	3.64	.00	.45	1.53			
Violence x Alcohol ^a	-.56	.37	-1.53	.13	-1.28	.16			
Violence x Nudity ^a	-.06	.36	-.17	.87	-.77	.65			
Violence x Touch ^a	-1.17	.40	-2.97	.00	-1.95	-.39			

Note. N = 204; DV = Hostile Sexism; * $p < .05$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 14.

Summary of hierarchical regression of hostile sexism on hazing and conformity to power over women

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.04	.02	1.82
(Constant)	3.61	.36	9.95	.00	2.89	4.33			
Dummy Alcohol	.24	.20	1.19	.24	-.16	.63			
Dummy Nudity	.23	.20	1.15	.25	-.17	.63			
Dummy Touch	.01	.20	.07	.95	-.39	.41			
BIMI	-.18	.09	-2.01	.05	-.37	-.00			
Model 2							.43	.42	136.33*
(Constant)	1.37	.34	4.04	.00	.70	2.04			
Dummy Alcohol	.05	.16	.32	.75	-.26	.36			
Dummy Nudity	.11	.16	.68	.50	-.20	.41			
Dummy Touch	-.06	.16	-.40	.69	-.37	.25			
BIMI	-.10	.07	-1.45	.15	-.24	.04			
Power	1.26	.11	11.68	.00	1.04	1.47			
Model 3							.44	.42	1.26
(Constant)	1.45	.43	3.42	.00	.62	2.29			
Dummy Alcohol	.49	.53	.93	.35	-.55	1.53			
Dummy Nudity	-.23	.48	-.49	.62	-1.17	.71			
Dummy Touch	-.58	.53	-1.10	.27	-1.63	.46			
BIMI	-.09	.07	-1.32	.19	-.23	.05			
Power	1.18	.21	5.62	.00	.77	1.60			
Power x Alcohol ^a	-.25	.31	-.81	.42	-.86	.36			
Power x Nudity ^a	.21	.28	.75	.46	-.35	.77			
Power x Touch ^a	.33	.32	1.02	.31	-.31	.96			

Note. N = 204; DV = Hostile Sexism; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 15.

Summary of hierarchical regression of hostile sexism on hazing and conformity to being a sexual playboy

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.04	.02	1.82
(Constant)	3.61	.36	9.95	.00	2.89	4.33			
Dummy Alcohol	.24	.20	1.19	.24	-.16	.63			
Dummy Nudity	.23	.20	1.15	.25	-.17	.63			
Dummy Touch	.01	.20	.07	.95	-.39	.41			
BIMI	-.18	.09	-2.01	.05	-.37	-.00			
Model 2							.08	.06	9.31*
(Constant)	2.60	.49	5.33	.00	1.63	3.56			
Dummy Alcohol	.21	.20	1.09	.28	-.17	.60			
Dummy Nudity	.19	.20	.95	.34	-.20	.58			
Dummy Touch	-3.52	.20	.00	1.00	-.39	.39			
BIMI	-.11	.09	-1.14	.26	-.29	.08			
Playboy	.38	.12	3.05	.00	.13	.62			
Model 3							.09	.06	.90
(Constant)	2.21	.63	3.49	.00	.96	3.46			
Dummy Alcohol	1.13	.68	1.66	.10	-.21	2.47			
Dummy Nudity	.11	.73	.15	.88	-1.34	1.56			
Dummy Touch	.50	.67	.75	.46	-.82	1.81			
BIMI	-.10	.09	-1.04	.30	-.28	.09			
Playboy	.56	.23	2.43	.02	.11	1.01			
Playboy x Alcohol ^a	-.46	.33	-1.40	.16	-1.10	.19			
Playboy x Nudity ^a	.02	.35	.07	.95	-.66	.71			
Playboy x Touch ^a	-.26	.33	-.78	.43	-.90	.39			

Note. N = 204; DV = Hostile Sexism; * $p < .01$ *Note.* * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 16.

Summary of hierarchical regression of hostile sexism on hazing and conformity to heterosexual self-presentation

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.04	.02	1.82
(Constant)	3.61	.36	9.95	.00	2.89	4.33			
Dummy Alcohol	.24	.20	1.19	.24	-.16	.63			
Dummy Nudity	.23	.20	1.15	.25	-.17	.63			
Dummy Touch	.01	.20	.07	.95	-.39	.41			
BIMI	-.18	.09	-2.01	.05	-.37	-.00			
Model 2							.35	.33	94.29*
(Constant)	1.49	.37	4.03	.00	.76	2.22			
Dummy Alcohol	.16	.17	.99	.33	-.16	.49			
Dummy Nudity	.14	.17	.86	.39	-.19	.47			
Dummy Touch	-.12	.17	-.74	.46	-.45	.21			
BIMI	-.15	.08	-2.00	.05	-.30	.00			
Hetero	.88	.09	9.71	.00	.70	1.05			
Model 3							.35	.32	.01
(Constant)	1.48	.47	3.15	.00	.55	2.40			
Dummy Alcohol	.18	.63	.29	.77	-1.06	1.42			
Dummy Nudity	.13	.59	.23	.82	-1.04	1.31			
Dummy Touch	-.03	.67	-.04	.97	-1.34	1.29			
BIMI	-.15	.08	-1.94	.05	-.31	.00			
Hetero	.88	.18	5.00	.00	.54	1.23			
Hetero x Alcohol ^a	-.01	.26	-.03	.98	-.52	.51			
Hetero x Nudity ^a	.00	.25	.01	.99	-.48	.49			
Hetero x Touch ^a	-.04	.27	-.15	.89	-.58	.50			

Note. N = 204; DV = Hostile Sexism; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 17.*Summary of hierarchical regression of benevolent sexism on hazing and conformity to violence*

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	.85
(Constant)	3.54	.26	13.67	.00	3.03	4.05			
Dummy Alcohol	-.10	.14	-.71	.48	-.38	.18			
Dummy Nudity	-.08	.14	-.52	.61	-.36	.21			
Dummy Touch	-.24	.14	-1.70	.09	-.53	.04			
BIMI	-.04	.07	-.62	.54	-.17	.09			
Model 2							.06	.04	9.93*
(Constant)	2.53	.41	6.23	.00	1.73	3.34			
Dummy Alcohol	-.12	.14	-.86	.39	-.40	.16			
Dummy Nudity	-.11	.14	-.74	.46	-.38	.17			
Dummy Touch	-.25	.14	-1.74	.08	-.52	.03			
BIMI	.01	.07	.17	.86	-.12	.14			
Violence	.31	.10	3.15	.00	.12	.51			
Model 3							.09	.05	1.69
(Constant)	2.56	.61	4.17	.00	1.35	3.77			
Dummy Alcohol	-.63	.74	-.85	.40	-2.08	.83			
Dummy Nudity	-.24	.73	-.32	.75	-1.67	1.20			
Dummy Touch	.88	.78	1.13	.26	-.66	2.42			
BIMI	-.01	.07	-.10	.92	-.14	.13			
Violence	.33	.20	1.62	.11	-.07	.73			
Violence x Alcohol ^a	.19	.27	.68	.50	-.35	.72			
Violence x Nudity ^a	.05	.27	.17	.87	-.48	.57			
Violence x Touch ^a	-.43	.29	-1.46	.15	-1.01	.15			

Note. N = 204; DV = Benevolent Sexism; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 18.

Summary of hierarchical regression of benevolent sexism on hazing and conformity to power over women

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	.85
(Constant)	3.54	.26	13.67	.00	3.03	4.05			
Dummy Alcohol	-.10	.14	-.71	.48	-.38	.18			
Dummy Nudity	-.08	.14	-.52	.61	-.36	.21			
Dummy Touch	-.24	.14	-1.70	.09	-.53	.04			
BIMI	-.04	.07	-.62	.54	-.17	.09			
Model 2							.06	.04	9.40*
(Constant)	3.00	.31	9.76	.00	2.40	3.61			
Dummy Alcohol	-.15	.14	-1.04	.30	-.42	.13			
Dummy Nudity	-.11	.14	-.74	.46	-.38	.17			
Dummy Touch	-.26	.14	-1.86	.07	-.54	.02			
BIMI	-.02	.06	-.32	.75	-.15	.11			
Power	.30	.10	3.07	.00	.11	.49			
Model 3							.07	.03	.69
(Constant)	3.02	.39	7.78	.00	2.25	3.78			
Dummy Alcohol	.17	.48	.34	.73	-.79	1.12			
Dummy Nudity	-.42	.43	-.97	.33	-1.28	.44			
Dummy Touch	-.17	.49	-.35	.73	-1.12	.79			
BIMI	-.02	.07	-.32	.75	-.15	.11			
Power	.29	.19	1.51	.13	-.09	.67			
Power x Alcohol ^a	-.18	.28	-.65	.52	-.74	.38			
Power x Nudity ^a	.19	.26	.74	.46	-.32	.70			
Power x Touch ^a	-.06	.29	-.20	.84	-.64	.52			

Note. N = 204; DV = Benevolent Sexism; * $p < .01$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 19.

Summary of hierarchical regression of benevolent sexism on hazing and conformity to being a sexual playboy

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	.85
(Constant)	3.54	.26	13.67	.00	3.03	4.05			
Dummy Alcohol	-.10	.14	-.71	.48	-.38	.18			
Dummy Nudity	-.08	.14	-.52	.61	-.36	.21			
Dummy Touch	-.24	.14	-1.70	.09	-.53	.04			
BIMI	-.04	.07	-.62	.54	-.17	.09			
Model 2							.02	.00	.64
(Constant)	3.73	.36	10.52	.00	3.03	4.43			
Dummy Alcohol	-.10	.14	-.68	.50	-.38	.19			
Dummy Nudity	-.07	.14	-.46	.65	-.35	.22			
Dummy Touch	-.24	.14	-1.68	.10	-.53	.04			
BIMI	-.06	.07	-.81	.42	-.19	.08			
Playboy	-.07	.09	-.80	.43	-.25	.11			
Model 3							.03	-.01	.70
(Constant)	3.85	.46	8.31	.00	2.93	4.76			
Dummy Alcohol	.13	.50	.27	.79	-.85	1.11			
Dummy Nudity	-.40	.54	-.75	.45	-1.46	.65			
Dummy Touch	-.64	.49	-1.31	.19	-1.60	.32			
BIMI	-.06	.07	-.82	.41	-.19	.08			
Playboy	-.13	.17	-.78	.44	-.46	.20			
Playboy x Alcohol ^a	-.11	.24	-.46	.65	-.58	.36			
Playboy x Nudity ^a	.17	.25	.65	.52	-.34	.67			
Playboy x Touch ^a	.20	.24	.85	.40	-.27	.67			

Note. N = 204; DV = Benevolent Sexism; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 20.

Summary of hierarchical regression of benevolent sexism on hazing and conformity to heterosexual self-presentation

Variable	β	SE	t	p	95% CI for β		R^2	Adj. R^2	F for ΔR^2
					Lower Bound	Upper Bound			
Model 1							.02	.00	.85
(Constant)	3.54	.26	13.67	.00	3.03	4.05			
Dummy Alcohol	-.10	.14	-.71	.48	-.38	.18			
Dummy Nudity	-.08	.14	-.52	.61	-.36	.21			
Dummy Touch	-.24	.14	-1.70	.09	-.53	.04			
BIMI	-.04	.07	-.62	.54	-.17	.09			
Model 2							.18	.16	39.29*
(Constant)	2.45	.29	8.37	.00	1.88	3.03			
Dummy Alcohol	-.14	.13	-1.07	.29	-.40	.12			
Dummy Nudity	-.12	.13	-.91	.36	-.38	.14			
Dummy Touch	-.32	.13	-2.38	.02	-.58	-.05			
BIMI	-.02	.06	-.39	.70	-.14	.10			
Hetero	.45	.07	6.27	.00	.31	.59			
Model 3							.21	.18	2.70*
(Constant)	3.04	.36	8.35	.00	2.32	3.76			
Dummy Alcohol	-1.04	.49	-2.13	.04	-2.00	-.08			
Dummy Nudity	-1.34	.46	-2.92	.00	-2.25	-.44			
Dummy Touch	-1.00	.52	-1.93	.06	-2.02	.02			
BIMI	.01	.06	.12	.91	-.11	.13			
Hetero	.14	.14	1.04	.30	-.13	.41			
Hetero x Alcohol ^a	.39	.20	1.93	.06	-.01	.79			
Hetero x Nudity ^a	.53	.19	2.78	.01	.15	.90			
Hetero x Touch ^a	.30	.21	1.42	.16	-.12	.72			

Note. N = 204; DV = Benevolent Sexism; * $p < .05$; ^aTerm corresponding to interaction between CMNI subscale and dummy-coded hazing condition.

Table 21.*Summary of omnibus F-tests for interaction effects across hierarchical regression models*

Model	SS	df	MS	F	p	R ²	Adj R ²	F for ΔR^2
DV: Rape Myth Acceptance								
Model 3 (Hazing * Violence)	5.86	(8, 194)	.733	2.20	.03	.08	.05	1.15
Model 3 (Hazing * Power)	24.92	(8, 194)	3.12	13.27	.00	.35	.33	1.67
Model 3 (Hazing * Playboy)	6.75	(8, 194)	.84	2.57	.01	.10	.06	.40
Model 3 (Hazing * Hetero)	23.59	(8, 194)	2.95	12.21	.00	.34	.31	2.50
DV: Hostile Sexism								
Model 3 (Hazing * Violence)	36.78	(8, 192)	4.60	5.10	.00	.18	.14	3.91*
Model 3 (Hazing * Power)	93.10	(8, 192)	11.64	19.13	.00	.44	.42	1.26
Model 3 (Hazing * Playboy)	19.43	(8, 192)	2.43	2.45	.02	.09	.06	.90
Model 3 (Hazing * Hetero)	73.51	(8, 192)	9.19	12.93	.00	.35	.32	.01
DV: Benevolent Sexism								
Model 3 (Hazing * Violence)	9.34	(8, 193)	1.17	2.34	.02	.09	.05	1.69
Model 3 (Hazing * Power)	7.60	(8, 193)	.95	1.87	.07	.07	.03	.69
Model 3 (Hazing * Playboy)	3.24	(8, 193)	.41	.76	.64	.03	-.01	.70
Model 3 (Hazing * Hetero)	22.64	(8, 193)	2.83	6.57	.00	.21	.18	2.70*

Note. N = 204; * $p < .05$; Each “Model 3” above displays the omnibus test corresponding to each Model 3 found in Tables 9-20.

Table 22.

Summary of hierarchical regression of rape myth acceptance on hazing and personal favorability ratings

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	2.34	.21		11.14	.00	1.92	2.75
Dummy Alcohol	.14	.12	.10	1.22	.23	-.09	.37
Dummy Nudity	.08	.12	.06	.65	.52	-.16	.31
Dummy Touch	.05	.12	.04	.44	.66	-.180	.28
BIMI	-.08	.05	-.11	-1.50	.14	-.18	.03
Model 2							
(Constant)	2.04	.33		6.13	.00	1.38	2.70
Dummy Alcohol	.26	.16	.19	1.68	.10	-.05	.57
Dummy Nudity	.21	.17	.15	1.27	.21	-.12	.53
Dummy Touch	.21	.18	.15	1.16	.25	-.15	.56
BIMI	-.06	.06	-.09	-1.18	.24	-.17	.04
PersonalFav	.06	.05	.13	1.15	.25	-.04	.15
Model 3							
(Constant)	2.07	.45		4.59	.00	1.18	2.96
Dummy Alcohol	.30	.44	.22	.69	.49	-.56	1.16
Dummy Nudity	.13	.43	.09	.30	.77	-.72	.97
Dummy Touch	.20	.42	.15	.49	.63	-.62	1.03
BIMI	-.07	.06	-.09	-1.21	.23	-.18	.04
PersonalFav	.05	.08	.12	.61	.55	-.12	.22
DummyAlcohol*PersonalFav ^a	-.02	.13	-.04	-.17	.87	-.28	.23
DummyNudity*PersonalFav ^a	.04	.12	.06	.29	.77	-.21	.28
DummyTouch*PersonalFav ^a	.00	.14	-.01	-.03	.97	-.28	.27

Note. N = 204; DV = Rape Myth Acceptance; ^aTerm corresponding to interaction between dummy-coded hazing condition and personal favorability rating of that condition.

Table 23.*Summary of hierarchical regression of hostile sexism on hazing and personal favorability ratings*

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	3.61	.36		9.95	.00	2.89	4.33
Dummy Alcohol	.24	.20	.10	1.19	.24	-.16	.63
Dummy Nudity	.23	.20	.10	1.15	.25	-.17	.63
Dummy Touch	.01	.20	.01	.07	.95	-.39	.41
BIMI	-.18	.09	-.14	-2.01	.05	-.37	.00
Model 2							
(Constant)	3.11	.58		5.41	.00	1.98	4.25
Dummy Alcohol	.44	.27	.19	1.63	.10	-.09	.98
Dummy Nudity	.46	.29	.19	1.60	.11	-.11	1.02
Dummy Touch	.28	.31	.12	.89	.37	-.34	.89
BIMI	-.16	.09	-.12	-1.68	.10	-.35	.03
PersonalFav	.09	.08	.13	1.12	.27	-.07	.26
Model 3							
(Constant)	3.84	.78		4.95	.00	2.31	5.37
Dummy Alcohol	-.30	.75	-.13	-.40	.69	-1.79	1.19
Dummy Nudity	-.42	.73	-.18	-.57	.57	-1.87	1.03
Dummy Touch	-.67	.72	-.28	-.93	.35	-2.10	.75
BIMI	-.16	.10	-.12	-1.70	.09	-.35	.03
PersonalFav	-.07	.15	-.10	-.49	.62	-.36	.21
DummyAlcohol*PersonalFav ^a	.18	.22	.18	.80	.43	-.26	.61
DummyNudity*PersonalFav ^a	.24	.21	.23	1.14	.26	-.18	.66
DummyTouch*PersonalFav ^a	.32	.24	.23	1.32	.19	-.15	.79

Note. N = 204; DV = Hostile Sexism; ^aTerm corresponding to interaction between dummy-coded hazing condition and personal favorability rating of that condition.

Table 24.

Summary of hierarchical regression of benevolent sexism on hazing and personal favorability ratings

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	3.54	.26		13.67	.00	3.03	4.05
Dummy Alcohol	-.10	.14	-.06	-.71	.48	-.38	.18
Dummy Nudity	-.08	.14	-.04	-.52	.61	-.36	.21
Dummy Touch	-.24	.14	-.14	-1.70	.09	-.53	.04
BIMI	-.04	.07	-.04	-.62	.54	-.17	.09
Model 2							
(Constant)	3.25	.41		7.92	.00	2.44	4.06
Dummy Alcohol	.02	.19	.01	.08	.94	-.37	.40
Dummy Nudity	.05	.20	.03	.26	.79	-.35	.46
Dummy Touch	-.09	.22	-.06	-.43	.67	-.53	.34
BIMI	-.03	.07	-.03	-.38	.70	-.16	.11
PersonalFav	.05	.06	.10	.89	.38	-.06	.17
Model 3							
(Constant)	3.74	.55		6.81	.00	2.66	4.82
Dummy Alcohol	-.16	.53	-.09	-.29	.77	-1.21	.90
Dummy Nudity	-.50	.52	-.30	-.96	.34	-1.52	.53
Dummy Touch	-.93	.51	-.55	-1.82	.07	-1.94	.08
BIMI	-.04	.07	-.04	-.53	.60	-.17	.10
PersonalFav	-.05	.10	-.10	-.48	.63	-.25	.15
DummyAlcohol*PersonalFav ^a	-.02	.16	-.03	-.15	.88	-.33	.28
DummyNudity*PersonalFav ^a	.15	.15	.21	1.03	.31	-.14	.45
DummyTouch*PersonalFav ^a	.36	.17	.37	2.11	.04	.02	.69

Note. N = 204; DV = Benevolent Sexism; ^aTerm corresponding to interaction between dummy-coded hazing condition and personal favorability rating of that condition.

Table 25.

Summary of hierarchical regression of rape myth acceptance on hazing and peer favorability ratings

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	2.34	.21		11.14	.00	1.92	2.75
Dummy Alcohol	.14	.12	.10	1.22	.23	-.09	.37
Dummy Nudity	.08	.12	.06	.65	.52	-.16	.31
Dummy Touch	.05	.12	.04	.44	.66	-.180	.28
BIMI	-.08	.05	-.11	-1.50	.14	-.18	.03
Model 2							
(Constant)	2.44	.33		7.39	.00	1.79	3.09
Dummy Alcohol	.11	.14	.08	.77	.45	-.17	.39
Dummy Nudity	.03	.16	.03	.21	.83	-.28	.35
Dummy Touch	.01	.17	.00	.03	.97	-.32	.33
BIMI	-.08	.05	-.11	-1.54	.12	-.19	.02
PeerFav	-.02	.05	-.04	-.39	.70	-.11	.08
Model 3							
(Constant)	2.29	.51		4.49	.00	1.28	3.29
Dummy Alcohol	.38	.50	.28	.75	.45	-.62	1.37
Dummy Nudity	.20	.52	.14	.38	.70	-.82	1.21
Dummy Touch	.10	.49	.07	.21	.83	-.86	1.06
BIMI	-.09	.06	-.11	-1.54	.13	-.19	.02
PeerFav	.02	.10	.03	.16	.88	-.18	.21
DummyAlcohol*PeerFav ^a	-.08	.13	-.17	-.60	.55	-.33	.18
DummyNudity*PeerFav ^a	-.04	.15	-.07	-.27	.79	-.33	.25
DummyTouch*PeerFav ^a	-.01	.14	-.11	-.05	.96	-.28	.26

Note. N = 204; DV = Rape Myth Acceptance; ^aTerm corresponding to interaction between dummy-coded hazing condition and peer favorability rating of that condition.

Table 26.*Summary of hierarchical regression of hostile sexism on hazing and peer favorability ratings*

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	3.61	.36		9.95	.00	2.89	4.33
Dummy Alcohol	.24	.20	.10	1.19	.24	-.16	.63
Dummy Nudity	.23	.20	.10	1.15	.25	-.17	.63
Dummy Touch	.01	.20	.01	.07	.95	-.39	.41
BIMI	-.18	.09	-.14	-2.01	.05	-.37	.00
Model 2							
(Constant)	3.23	.57		5.67	.00	2.11	4.35
Dummy Alcohol	.36	.25	.15	1.48	.14	-.12	.85
Dummy Nudity	.39	.27	.17	1.44	.15	-.15	.93
Dummy Touch	.19	.29	.08	.67	.51	-.38	.76
BIMI	-.17	.09	-.13	-1.78	.08	-.35	.02
PeerFav	.07	.08	.09	.87	.39	-.09	.24
Model 3							
(Constant)	3.94	.88		4.49	.00	2.20	5.67
Dummy Alcohol	-.41	.87	-.18	-.48	.63	-2.12	1.30
Dummy Nudity	-.19	.89	-.08	-.21	.83	-1.94	1.56
Dummy Touch	-.83	.84	-.35	-.99	.32	-2.48	.82
BIMI	-.17	.10	-.13	-1.77	.08	-.35	.02
PeerFav	-.09	.17	-.11	-.52	.61	-.42	.25
DummyAlcohol*PeerFav ^a	.19	.22	.23	.84	.40	-.25	.62
DummyNudity*PeerFav ^a	.10	.25	.11	.41	.69	-.40	.61
DummyTouch*PeerFav ^a	.32	.23	.30	1.36	.18	-.14	.78

Note. N = 204; DV = Hostile Sexism; ^aTerm corresponding to interaction between dummy-coded hazing condition and peer favorability rating of that condition.

Table 27.*Summary of hierarchical regression of benevolent sexism on hazing and peer favorability ratings*

Variable	Unstd. β	SE	Std. β	t	p	95% CI for β	
						Lower Bound	Upper Bound
Model 1							
(Constant)	3.54	.26		13.67	.00	3.03	4.05
Dummy Alcohol	-.10	.14	-.06	-.71	.48	-.38	.18
Dummy Nudity	-.08	.14	-.04	-.52	.61	-.36	.21
Dummy Touch	-.24	.14	-.14	-1.70	.09	-.53	.04
BIMI	-.04	.07	-.04	-.62	.54	-.17	.09
Model 2							
(Constant)	3.51	.41		8.62	.00	2.71	4.31
Dummy Alcohol	-.09	.18	-.06	-.52	.60	-.44	.26
Dummy Nudity	-.06	.20	-.04	-.32	.75	-.45	.32
Dummy Touch	-.23	.21	-.14	-1.12	.26	-.63	.17
BIMI	-.04	.07	-.04	-.58	.56	-.17	.09
PeerFav	.01	.06	.01	.10	.92	-.11	.12
Model 3							
(Constant)	3.90	.63		6.22	.00	2.66	5.14
Dummy Alcohol	-.63	.62	-.37	-1.01	.32	-1.85	.60
Dummy Nudity	-.35	.64	-.21	-.55	.58	-1.60	.90
Dummy Touch	-.76	.60	-.45	-1.27	.21	-1.94	.42
BIMI	-.04	.07	-.04	-.55	.59	-.17	.10
PeerFav	-.09	.12	-.15	-.70	.48	-.33	.16
DummyAlcohol*PeerFav ^a	.14	.16	.25	.88	.38	-.17	.45
DummyNudity*PeerFav ^a	.04	.18	.06	.22	.83	-.32	.40
DummyTouch*PeerFav ^a	.16	.17	.20	.93	.36	-.18	.49

Note. N = 204; DV = Benevolent Sexism; ^aTerm corresponding to interaction between dummy-coded hazing condition and peer favorability rating of that condition.

Appendix B Extended Review of Literature

***Trigger/Content Warning:**

Segments of media coverage on male athlete sexual violence are included below.

“Six football players at the University of Tennessee at Chattanooga have been charged with taking turns raping a drunken student after a party...When the party began to break up about 2:30 a.m., she said, she was taken to the apartment, where seven to 10 men took turns having sex with her. She said she objected and hit them, but they forced themselves on her...A judge threw [the case out], ruling that there was not enough evidence to prove that their sex with a with a female student was not consensual”

“In 2010, a woman was reportedly raped by four University of Montana football players. Police said there was not enough evidence to press charges. Early last year, Montana’s coach and athletic director were fired, possibly for helping to minimize and/or cover up this crime. Things are so bad at that particular institution, the Department of Justice and the Department of Education are each handling their own investigation into the alleged sexual assaults by football players.”

“A lawsuit filed Wednesday against Baylor University cites three women as victims of sexual assault, including one who said she was assaulted by a Bears football player on campus in April 2014. The woman in Wednesday’s lawsuit who reported the assault involving the football player said she went to a university physician two days after the incident, and the physician ‘misinformed Jane Doe 1 and concealed from Jane Doe 1 as to her options to further report the incident,’ according to the lawsuit. The lawsuit stated that she also reported the alleged assault to the Baylor campus advocacy center during final exams, but the university did not provide her any assistance, and she was ‘left to cope with the situation alone and in fear.’ It states that she would see her alleged assailant at football games, would become upset and would be forced to leave. Stress caused her to perform poorly in her classes, the suit says, and she lost her academic scholarship and dropped out after fall 2015.”

These three excerpts were pulled from a staggering list (Luther, 2016) of over 130 sexual assault investigations and cases within college football across four decades – between the years of 1974 and 2016. The list, only updated through October 2016, was meticulously compiled by author and investigative journalist Jessica W. Luther. Among the institutions listed are prominent NCAA Division I schools such as the University of Notre Dame, the U.S. Naval Academy, Arizona State University, the University of Missouri, the University of California-Berkeley, the

University of Iowa, Vanderbilt University, UCLA, the University of Tennessee-Knoxville, Boise State, the University of Texas at Austin, the University of Minnesota, and countless others. Of note, the 132 cases identified in this list *only* include sexual assault perpetration associated with a single sport (football), at a single competitive level (i.e., omitting high school, professional, and Olympic athletes). Further, they only include “allegations and cases that we know about...most cases are never reported” (Luther, 2016).

Incidents of male athletes who perpetrate sexual violence have increasingly dominated headlines and national discourse over the past few decades. One of the more well-known cases in recent years was that of Brock Turner, who, in 2016, was convicted of three felony counts of sexual assault after attacking and sexually violating an intoxicated and unconscious 22-year-old woman on Stanford University’s campus. The public outrage around this case was amplified when Turner, a collegiate swimmer at the time, was sentenced to a mere six months in county jail, only to be released on probation halfway through his sentence (Stack, 2016).

The literature review that follows will expand on the background and rationale for the current project and explore different bodies of scholarship that informed this study on male athlete-perpetrated sexual violence (MASV). The sections below reflect four main areas of discussion. First, the review summarizes prior research on the issue of MASV, as well as other forms of violence and aggression perpetrated by male athletes. Second, while recognizing that there are many factors that contribute to this issue, this review will discuss key research and theory specifically related to the psychology of men and masculinities. Third, the review will introduce a relatively new lens through which we can understand the socialization of sexually violent attitudes and behaviors among male athletes, by studying the relational performance and consequences of masculinity via within-gender abusive practices such as hazing. Finally, this

review will tie these different strands of research together under the framework of rape culture, reviewing links between different dimensions of masculinity in sport, and attitudinal predictors of sexual violence such as rape myth acceptance and sexism (employed as dependent variables in the current study).

Before discussing these different areas of research, it is important to start with a definition of the issue at hand. Sexual violence, perhaps contrary to popular understandings, is not limited to rape and sexual assault. Tharp and colleagues (2013) define sexual violence as “sexual activity where consent is not obtained or freely given; coercive strategies used in sexual violence may be physical, verbal, or psychological...[and run] along a continuum from minor acts, such as street harassment, to severe acts, such as physically forced sex” (p. 133-134). The breadth of this definition is particularly salient for the current study, which was focused on the impact of violent hazing among male athletes, when it comes to their understanding of power and “consent,” as well as the normalization of sexual harassment, touch, and abuse. Another term often used in the literature to characterize the wide array of behaviors that constitute sexual violence, is sexual coercion, or the use of strategies involving verbal or non-verbal pressure, manipulation, or force to engage another individual in sexual behavior, “despite the absence of free and informed consent, or the clear expression of a refusal” (Benbouriche & Parent, 2018, p. e16).

Furthermore, while this review and the current study focus on variables related to masculinity that impact MASV, it is important to acknowledge that there is an extensive array of predictors and factors that contribute to an issue such as this (Casey & Lindhorst, 2009; Tharp et al., 2013). The constructs outlined in the literature review below do not come close to reflecting a comprehensive account of the individual-, interpersonal-, or ecological-level variables that

predict sexually violent behavior among male athletes. Relatedly, sports obviously do not hold a monopoly on the socialization of non-consensual treatment of others, hypermasculinity, misogyny, hostility toward women or LGBTQ+ communities, and sexually aggressive attitudes and behavior, and like anyone else, male athletes are a product of a multitude of learning environments throughout their lives (Forbes et al., 2006). While sport is a domain in critical need of focused research and prevention programming, evidence repeatedly suggests that *sport participation* itself is neither an independent nor causal determinant of sexual violence (Caron et al., 1997; Humphrey & Kahn, 2000). In this vein, scholars have advocated for moving prevention models away from focusing solely on individual-level targets of intervention (e.g., whether or not an individual belongs to an at-risk group such as athletes) toward broader, multi-level prevention models that account for a range of attitudinal, ideological, social and ecological variables that are amenable to intervention (Casey & Lindhorst, 2009; Flood & Pease, 2009). The primary purpose of this study was to contribute to an understanding of some of these ideological, social, and ecological variables – some of which are broadly applicable and others unique to the context of sport.

Scope of the Issue: Prior Research on Male Athlete Sexual Violence

As noted previously, in 2016 (and again in 2019), the NCAA published its resource entitled “*Sexual Violence Prevention: An Athletics Tool Kit for a Healthy and Safe Culture.*” Packaged as a “call to action” for more than 1,200 member schools and conferences, the tool kit was the first of its kind put forth by the NCAA, and designed to “change the culture in athletics departments” and strengthen sexual violence prevention (SVP) on college campuses around the country (NCAA, 2019). The contents of this tool kit resemble many traditional approaches to SVP, which is often psychoeducational in nature (DeGue et al., 2014), typically focused on

bystander intervention training (McMahon & Banyard, 2012) and the promotion of consensual and healthy sexual practices (Beres, 2014).

The document itself could be viewed as a timely and pertinent response to the number of NCAA student-athletes, coaches, and support staff who have been implicated (i.e., perpetrators, alleged perpetrators, or enablers) in cases of sexual violence in recent decades (McCray, 2015). However, as outlined above, public awareness of the problem of sexual violence in among male athletes is not new, which begs the question as to why it took the NCAA until 2016 to put forth a document like this, given the overwhelming evidence across decades that has pointed to this as a glaring issue in collegiate sport.

Within the scholarly community, MASV has received increasing attention from a range of disciplines (e.g., psychology, sociology, higher education, public health) since the early 1990s (McCray, 2015). In an apparent attempt to determine whether male athletes are, in fact, uniquely at-risk for perpetrating sexual violence, a vast majority of empirical studies on this issue have focused almost exclusively on subtle variations of a single question: *Do male athletes (or certain sports) differ significantly from other groups of men when it comes to sexually violent attitudes or behaviors?* (e.g., Brown et al., 2002; Caron et al., 1997; Crosset et al., 1995; Humphrey & Kahn, 2000; Koss & Gaines, 1993; Murnen & Kohlman, 2007; Smith & Stewart, 2003; Young et al., 2017). Stated somewhat differently, can sexually violent attitudes or behaviors among men be predicted by their participation in sport?

Repeated attempts over the years to answer versions of this question are not wholly misguided since results thus far have remained largely mixed (see Kimble et al., 2010; McCray, 2015; McMahon, 2015). Two of the earliest known, and most widely cited, studies on this issue were published nearly three decades ago (Crosset et al., 1995; Frintner & Robinson, 1993). The

first (Frintner & Robinson, 1993) found that male student-athletes were disproportionately more likely to be identified as perpetrators of violence against women on a college campus. After randomly sampling 925 women at a university, Frintner and Robinson (1993) found that more than a quarter of them reported having been victims of one of four crimes: (1) sexual assault, (2) attempted sexual assault, (3) sexual abuse, or (4) battery, illegal restraint, or intimidation. Of the individuals who were identified as having perpetrated these crimes, student-athletes represented anywhere from 11.1% to 22.6% of perpetrators, while representing only 2% of the overall male student body on campus.

A subsequent study (Crosset et al., 1995) examined records at 20 college police stations and 10 institutional judicial affairs offices across a three-year period in the early 1990s. The study's findings revealed that male athletes were disproportionately involved in cases of campus sexual violence across both sets of records. While they made up between 3.3 to 3.8% of the male college student population, athletes were involved in 5.5% of the sexual assaults reported to campus police, and 19% of the reports made to judicial affairs (Crosset et al., 1995).

It is worth noting that data from Crosset's et al. (1995) study (and others like it, although no known replication efforts have been made since) are likely *underestimated*, given that sexual assault has long been one of the lowest reported crimes (Koss, 1992). In fact, there is evidence that less than 10% of sexual violence victimization among women is actually reported to police (Kilpatrick et al., 1987), and summaries of sexual assault incidence (e.g., Luther, 2016) often stipulate that these accounts are far from comprehensive. Furthermore, when it comes to the cases that do result in charges of rape, collegiate and professional athletes are disproportionately less likely to be convicted (Benedict & Klein, 1997). Finally, as is evident throughout Luther's (2016) list, many sexual assault cases involving athletes end in (often multimillion dollar)

financial settlements with non-disclosure agreements or confidentiality clauses that yield further obstacles when it comes to clearly documenting the scope of this issue (e.g., Associated Press, 2018).

With so many factors that make it difficult to clearly determine from legal records the degree to which male athletes perpetrate sexual violence on college campuses compared to other groups of men, many researchers have relied upon other methods – namely, self-report – to explore this issue. One of the earliest known studies to have done so (Koss & Gaines, 1993) explored athletic participation, substance use, and fraternity membership as possible predictors of self-reported sexual aggression among a sample of 530 undergraduate men. Results indicated that men who participated in organized sport and those who used alcohol/nicotine were more likely to be sexually aggressive, although researchers urged caution around drawing definitive conclusions, given low effect sizes (Koss & Gaines, 1993).

Much more recently, Young and colleagues (2017) compared a sample of 188 male athletes with 191 male non-athletes on a college campus and found that athletes (recreational and intercollegiate) reported engaging in higher rates of sexually coercive behavior than college men who did not play a sport. The researchers also found that, compared to non-athletes, men who played a sport endorsed higher acceptance of rape myths and more traditional views of gender roles. Of note, the study found no significant differences between the level of sports participation (intercollegiate vs. recreational) on any of these variables, suggesting that sexually violent attitudes and behaviors are not limited to college men who play sport at higher levels of competition (Young et al., 2017).

Over the years, however, evidence from self-report research has also challenged or undermined notions that athletic participation is a unique predictor of sexual violence among

men (Brown et al., 2002; Caron et al., 1997). For example, Caron's et al. (1997) study of 104 college men did not find significant differences between athletes and non-athletes when it came to self-reported rape-supportive attitudes, hostility toward women, or sexual aggression. However, the researchers did find that, when controlling for athletic participation, the personality trait of competitiveness was significantly associated with men's greater hostility toward women ($r = .21$) and sexual aggression ($r = .16$). The authors suggested that common narratives attributing sexual violence to participation in sports are overly simplistic, while arguing for greater focus on the trait-like characteristics of athletes that may predict sexually aggressive behavior (Caron et al., 1997).

Similarly, in a more recent study of 282 male undergraduate students at a university in the UK, Smith and Stewart (2003) found no significant differences between athletes and non-athletes when it came to self-reported rape-supportive attitudes, hostility toward women, and perpetration of sexual aggression. The researchers concluded that the common assumption of athletes as more prone to perpetrate sexual violence than non-athletes "appears to be an oversimplification" (Smith & Stewart, 2003, p. 392). Instead, they suggested that athletes' prominence and visibility may distort this perception, given that athlete violence and criminal activity is often more likely to attract media coverage than similar crimes committed by non-athletes.

Other studies have also found no significant links between athletic participation and self-reported sexually violent behaviors or attitudes among men, instead pointing to other predictors such as alcohol use, prior forms of violence, or masculine norm conformity (Gidycz et al., 2007; Locke & Mahalik, 2005). Locke and Mahalik (2005), for instance, explored whether self-reported sexual aggression or rape myth acceptance were predicted by alcohol use, athletic

participation, and conformity to traditional masculine norms in a sample of 254 male undergraduate students. Results showed that athletic involvement was not predictive of sexual aggression or acceptance of rape myths, while problematic alcohol use and masculine conformity were significantly associated with these outcomes. Further, in a rare longitudinal look into the issue of sexually aggressive behavior, Gidycz and colleagues (2007), conducted a prospective study of 425 undergraduate men, 19.3% (N = 82) of whom were on a competitive sports team, to explore the degree to which self-reported sexually aggressive behavior at two time points (Time 1 and 3-month follow-up) was predicted by a range of different factors. The researchers found that *prior violence perpetration* was the only significant predictor of self-reported perpetration of aggression at follow-up, and that athletic participation was not predictive of any form of violent behavior (sexual, physical, or verbal).

There have also been studies suggesting that, while sport participation itself may not predict sexually violent behavior, *watching* certain types of sport can. Brown et al. (2002) studied 139 male college students and found no evidence to suggest that participation in contact or non-contact sports predicted higher levels of self-reported sexual aggression against women. However, the study did show that sexual violence perpetration was predicted by the degree to which one *watched* contact sports (e.g., football, basketball, ice hockey).

As is evident in the studies reviewed above, most research on MASV has focused largely on this issue within college sports. However, scholars have also noted the importance of examining the role of sport participation at younger ages, in order to better understand the developmental nature of men's sexual aggression. In a study of 147 college-aged men, Forbes and colleagues (2006) explored the degree to which men's participation in *high school* sports (irrespective of whether they continued to play sports in college) predicted sexually violent

attitudes and behavior later on. The researchers found that men who participated in high-contact sports in high school (e.g., football, wrestling, soccer), compared with other men, reported higher rates of psychological, physical, and sexual aggression toward their dating partners, more sexist and hostile attitudes toward women, greater acceptance of rape myths, and more negative attitudes toward homosexuality. Furthermore, results of this study were gleaned from a sample of undergraduate students at a small, private NCAA Division III school, challenging the assumption that gendered violence is an issue largely associated with high-profile athletes at major Division I universities (Forbes et al., 2006).

Meta-Analyses and Reviews: Does Participation in Sport Predict Sexual Violence Among Men?

Over the years, efforts (along a spectrum of scientific rigor) have been made to review studies on MASV in their totality, as scholars attempt to draw overarching conclusions regarding whether participation in sport predicts men's sexually violent attitudes or behavior (e.g., Kimble et al., 2010; McCray, 2015; Murnen & Kohlman, 2007; Tharp et al., 2013). For example, Murnen and Kohlman (2007), conducted a meta-analytic review on research on two subgroups of college-aged men who have been traditionally deemed to be "high risk" for sexual violence: fraternities and athletes. The review included unpublished doctoral dissertations. Outcomes of interest included self-reported sexual aggression, as well as rape myth acceptance and hypermasculinity, as both have been previously shown to predict sexually aggressive behavior. Furthermore, both rape myth acceptance and adherence to traditional gender role norms are traditionally included among various dimensions of rape culture (Johnson & Johnson, 2017). While Murnen and Kohlman's (2007) meta-analysis found some variability in the internal validity of the 16 studies on athletes they analyzed, overall effect sizes revealed that participation in sport was significantly associated to a moderate extent ($d = .63$) with hypermasculinity, to a

less moderate extent with rape myth acceptance ($d = .43$), and to a slightly smaller extent with self-reported sexual aggression ($d = .31$), compared to men who were not athletes. The authors noted a lack of surprise regarding the differences across these effect sizes, given that attitudinal variables are likely more socially acceptable to endorse than behavioral ones.

Subsequent reviews have been perhaps less meticulous or formal in their approach but have arrived at similar conclusions. McCray (2015), for example, conducted a “literature review” of research on sexual violence among intercollegiate athletes, but did not specify any inclusion criteria for the literature search or utilize any meta-analytic methods. Nevertheless, McCray (2015) reviewed many of the same studies included in Murnen & Kohlman’s (2007) meta-analysis and concluded that, “In summary, findings indicated student-athletes disproportionately represented perpetrators of incidences of violence against women as well as possessing (sic) attitudes of stronger sexual aggression and rape myth acceptance” (p. 440).

At times, existing scholarship on sexual violence perpetrated by male athletes has been subsumed within reviews that take on a much broader scope. Consider, for example, a recent review of risk factors for sexual violence perpetration (Tharp et al., 2013) or a review of various forms of violence and aggression in sport (Kimble et al., 2010). Tharp and colleagues (2013) conducted a systematic review of various risk and protective factors for sexual violence perpetration and included a total of 191 studies in their analysis, 12 of which included a focus on athletes or sport. The authors concluded that participation in sports was one factor that was “associated with increased risk for sexual violence perpetration in more studies than not” (p. 138). Nevertheless, given the mixed nature of many of the findings, the authors noted that characteristics of a particular sport, team, or individual athlete may be a more reliable predictor than sport participation alone (Tharp et al., 2013).

Other reviews, by virtue of the breadth of their focus, have drawn conclusions about sport participation and men's sexual violence that are more difficult to interpret. For example, a systematic review by Kimble et al. (2010) looked at athletes' aggressive and violent behavior (both on and off the "field"). The authors reviewed a total of 68 studies conducted over the previous 30 years, including six that specified a focus on sexual violence (as opposed to violence/aggression more broadly). The authors concluded from these six studies that, "results illustrated that *lower levels of sports participation*, not higher, were correlated with sexual aggression against women" (p. 456, italics added). However, their broader review identified significant methodological issues and a lack of scientific rigor across the "violence in sport" literature, including an overabundance of theoretical, anecdotal, or editorial publications and a paucity of empirical studies, as well as inconsistencies when it comes to how "violence" or "aggression" have been defined. Furthermore, the authors acknowledged that the aforementioned meta-analysis by Murnen and Kohlman's (2007) found a significant positive association between athletic participation and sexual aggression among men, but then appear to contradict this conclusion despite reviewing only one additional study that was conducted after Murnen and Kohlman's (2007) review. These inconsistencies could reflect some degree of subjectivity when it comes to non-meta-analytic reviews, as well as the drawbacks of extending the scope of a particular review too broadly. Furthermore, two of these reviews – one on aggression and violent behavior in athletics (Kimble et al., 2010) and the other on the link between sport participation, alcohol use, and violence (Sønderlund et al., 2014) – illustrate different approaches to (and drawbacks of) aggregating empirical research on this issue. One major limitation of both reviews concerns the degree to which they aggregate data on athletes of all gender identities, virtually disregarding the degree to which violence and aggression in sport are inextricably linked to

gendered power, oppression, and social norms (Messner, 1990). Finally, the reviews by Kimble et al. (2010) and Tharp et al. (2013) both omitted data from unpublished studies (e.g., doctoral dissertations), while these were included in the aforementioned meta-analysis by Murnen & Kohlman (2007) and in some cases rated as having higher internal validity than studies that were published in peer-reviewed journals.

Athletes Are Not a Monolith: Differentiating Between Sports and Sport Sub-Cultures

The mixed results across studies that explore whether male athletes are more prone to sexual violence has prompted some scholars to describe these questions as “unproductive and simplistic” (Crosset, 1999, p. 244). It is often highlighted that male athletes (and sports) are not homogenous, which can perhaps explain why research findings that aggregate data across a wide swath of athletes has at times appeared inconclusive. For example, a recurring argument in the literature suggests that “hypermasculinized” sports characterized by high contact and physicality, such as football (Steinfeldt & Steinfeldt, 2012; Welch, 1997), mixed martial arts (Channon & Matthews, 2015), rugby (Anderson & McGuire, 2010; Schacht, 1996), and ice hockey (Pappas et al., 2004) may be unique associated with more violent off-field behavior (Forbes et al., 2006).

Other scholars have recognized the likelihood that each athletic team has a unique culture, and that it may be important to explore whether certain cultures are predictive of or reinforce sexually violent attitudes or behavior. Humphrey and Kahn (2000), for example, asked a preliminary sample of undergraduate students to rate a list of 17 campus fraternities and 16 male sports teams on the extent to which each group is perceived to promote an environment conducive to sexual violence. After these ratings, the researchers distributed questionnaires to members of the four highest-rated and four lowest-rated groups. Findings showed that “high-risk” groups scored significantly higher than “low-risk” groups on measures of sexual aggression

toward women, hostility toward women, and male peer support for sexual violence toward women (Humphrey & Kahn, 2000).

Over the years, there have also been several (successful and unsuccessful) attempts to link certain individual personality characteristics, or trait-like constructs (e.g., aggression), that are commonly associated with sport with sexually violent attitudes and behaviors. For example, studies have suggested that men who are more competitive and oriented toward winning are often more sexually aggressive (Caron et al., 1997; Smith & Stewart, 2003). Nevertheless, from the standpoint of sexual violence prevention, scholars have cautioned against an over-emphasis on individual risk factors and trait-like predictors. Instead, since “a fairly broad range of ‘normal’ men may also be vulnerable to engaging in coercive behavior...[and] conditions fostering sexual violence likely exist within broader peer and social environments,” it is also critically important to target sociocultural and ecological variables (Casey & Lindhorst, 2009, p. 95). Furthermore, there are obvious challenges in attempting to eliminate (or even soften) norms of competitiveness or physical dominance in sports. While efforts can certainly be made to differentiate between sanctioned and non-sanctioned “competitive” or “aggressive” behaviors, there is also a need for research that targets aspects of male sports that are more amenable to intervention.

Other researchers have also sidestepped “unproductive” debates (Crosset, 1999) about whether athletic participation *in general* predicts sexual violence and have instead focused on exploring different subgroups in sport. For example, Sawyer and colleagues (2002) examined a sample of 704 college athletes across five universities and found that rape-supportive attitudes (e.g., rape myth acceptance) were significantly higher among younger male athletes (freshmen/sophomores) and male athletes who played team sports (e.g., football, basketball),

than older athletes (juniors/seniors) and men who competed in individual sports (e.g., tennis, golf, swimming, track).

There is also evidence suggesting that men who either participate in (Forbes et al., 2006) or view (Brown et al., 2002) sports involving a high degree of physical contact and aggression are more likely to engage in sexually aggressive or coercive behavior toward women. The link between high-contact sports and violent behavior outside of sport has also been substantiated when violence is defined more broadly (i.e., including forms of aggression beyond sexual assault). In one of the largest known studies to date on this issue, Kreager (2007) analyzed data from the National Longitudinal Study of Adolescent Health (a sample of 6,397 male American students in grades 7-12) to see if participation in certain sports predicted adolescent violence in the form of severe fighting. Findings suggested that athletic participation in high contact sports (e.g., football wrestling), was, in fact, positively associated with self-reported fighting among male adolescents, even when controlling for selection effects (e.g., an individual with a history of prior fighting who may have been attracted or recruited into high contact sports). The study further showed that the relationship between contact sport participation and violence was mediated by the athletic involvement of one's peer network. In other words, it was not solely about playing football, but also about whether one's friends also played football. Kreager's (2007) study highlights the impact of being socially embedded within peer networks where aggression is normalized, and the author noted that, "Masculinized sports...become socially sanctioned stepping-stones toward privilege and power—sites where coaches, peers, parents, and the media encourage masculine identities founded on physical aggression and domination" (p. 706).

Further, differences across types of sport when it comes to sexual violence may also depend on the degree to which a sport is deemed to be prominent, visible, or revenue-producing on a college campus. In a study of undergraduate men (both athletes and non-athletes), Gage (2008) separated the athletes into “center” sports (e.g., football) and “marginal” sports (e.g., tennis, track and field) – a taxonomy previously put forth by Messner (2002), who described center sports as those having a long history of and close proximity to sources of institutional funding, social tradition, and power. Citing Messner’s (2002) argument, Gage (2008) noted that, “Because of the money they produce as well as their historical prominence within university culture, center sports are often immune to, or protected against, external sanctions that would otherwise discourage deviant behavior by their athletes” (p. 1017). Gage’s (2008) study did find differences between athletes and non-athletes when it came to measures of hypermasculinity and attitudes toward women. However, closer analysis revealed that marginal athletes and non-athletes were markedly similar when it came to these attitudes and did not differ when it came to sexual aggression, while center athletes (i.e., football players in this case) scored significantly higher than marginal athletes and non-athletes on all three hypermasculinity scales (violence, danger, callous sexual attitudes) and were also more likely to report having engaged in sexually aggressive behavior.

Collectively, findings from some of these studies might be interpreted to suggest that notions of male athletes as being generally “more sexually violent” than non-athletes are misleading and reductionistic – that research should instead focus largely on male athletes in team sports (Sawyer et al., 2002), sports with a high degree of physical contact (Forbes et al., 2006), and/or sports that occupy prominent, revenue-producing, and culturally powerful positions on college campuses (Gage, 2008). A sport like football, for example, would obviously

meet this set of criteria, and, notably, a vast majority of well-known cases of student-athlete perpetrated sexual violence (including multiple accounts of gang rape) have involved college football players (Gage, 2008; Luther, 2016).

However, while this may be true, and further research targeting football and other sub-groups within sport is needed, it is also important to acknowledge limitations to narrowing the scope in these ways. First, there is the likelihood that the distinctions and categories researchers have used to study different “types” of sport are highly subjective. Consider, for example, a sport like baseball – classified as “low-contact” by Forbes et al. (2006). While baseball may involve lower levels of sanctioned physical aggression compared to sports like football or wrestling, there are still opportunities for aggressive behavior, such as a pitcher who attempts to hit a batter with a ball, a relatively common incident that, not uncommonly, results in bench-clearing physical brawls between opposing teams. Furthermore, it is important to recognize that a sport like baseball has still had high rates of domestic violence among its professional athletes (Webb, 2011). Furthermore, links between sanctioned violence or aggression in sport and sexual violence are still tenuous at best, given other studies that have found no link between participation in contact sports and higher rates of sexual assault (Brown et al., 2002; Smith & Stewart, 2003).

Similarly, attempts to distinguish between “central” sports (e.g., football) and those that Messner (2002) and other scholars have deemed to be “marginal” may seem like a straightforward taxonomy at most institutions. However, a sport like ice hockey, while likely considered to be “marginal” at most schools, has historically garnered greater prominence and profitability at others (e.g., University of Minnesota, Boston University). Furthermore, similar to athletes who play baseball, ice hockey players are also known to engage in violent behavior both

in and out of their sport (Pappas et al., 2004). In other words, further attempts to categorize sports based on the degree to which they are “central” and highly prominent or visible on a college campus should take into account ways in which this classification system will differ across schools. Finally, it is again important to note further inconsistencies in empirical findings that emerge when researchers attempt to “carve sport at its joints.” While prior research has not necessarily contradicted the argument put forth by Messner (2002) that “center” sports are more likely to reinforce hegemonic masculine norms (see Gage, 2008), there is reason to question the degree to which this translates into sexual violence, as there have been studies that have found no significant differences in sexually violent attitudes between athletes in revenue-producing and non-revenue-producing sports at the collegiate level (Sawyer et al., 2002).

Despite these many attempts to better understand MASV, the empirical literature on this issue remains somewhat murky, disjointed, inconsistent, and in its infancy. Furthermore, it often seems to be the case that for any given study that arrives at one conclusion (e.g., there are no differences in sexually violent attitudes or behaviors between athletes in contact sports vs. non-contact sports; Smith & Stewart, 2003), there is often another study with contradictory findings (e.g., Forbes et al., 2006).

While inconsistent findings are by no means an anomaly in scientific research, one glaring limitation across many studies on MASV concerns their practical utility when it comes to addressing this issue. Most research has either attempted to determine (1) whether athletes are more sexually violent than non-athletes (Caron et al., 1997; Crosset et al., 1995; Frinter & Robinson, 1993; Koss & Gaines, 1993; Murnen & Kohlman, 2007; Smith & Stewart, 2003; Young et al., 2017), or (2) whether sexually violent behaviors or attitudes are more prevalent among certain subgroups of athletes (e.g., contact sports, revenue-producing sports, team sports)

than others (Forbes et al., 2016; Gage, 2008; Humphrey & Kahn, 2000). In other words, most prior research has been concerned with the question of *which* groups of men are more at-risk for perpetrating sexual assault, rather than questions about *how* male athletes come to endorse sexually violent attitudes or engage in sexually violent behaviors. Of course, there is a growing body of literature that has explored predictors of male-perpetrated sexual violence in the general population of men or among college students. However, few if any such studies have been conducted specifically in sport. As a result, prevention programming in sport (whether it targets male athletes as a whole or specific subgroups of athletes) has been largely limited to standard models of prevention, rather than ones that are tailored specifically for athletic populations. The current study, therefore, sought to explore certain cultural and psychosocial factors that might predict male athlete sexual violence, with specific attention on masculinity and hazing practices. The sections that follow review existing literature on both.

The Psychology of Men and Masculinities

At face value, sport seems like a fascinatingly complex space for the study of masculinity, perhaps because many qualities associated with traditional notions of manhood (e.g., risk-taking, muscularity, competitiveness, physical dominance) are culturally embedded within the “sport ethic” itself and are often even deemed necessary for elite athletic performance (Hughes & Coakley, 1991; Kimble et al., 2010; Messner, 1990; Steinfeldt et al., 2011). Accordingly, in recent years, researchers have explored links between masculinity-related variables and various outcomes in sport such as bullying (Steinfeldt et al., 2012), homophobia (Anderson, 2011; Channon & Matthews, 2015), drive for muscularity (Steinfeldt et al., 2011), or beliefs about crying (Wong et al., 2011). However, with the exception of these and a small handful of other studies, empirical research on masculinity in sport remains limited. For

example, a content analysis of the journal *Psychology of Men and Masculinities* between the years 2000-2008 found that sport was addressed in only 1% of over 150 articles (Wong et al., 2010). Due to these gaps, most of the subsequent discussion focuses on the broader masculinity literature, with the goal of applying research and theory within it to a study on MASV.

One of the first questions that emerged in the process of designing the current study was: How is “masculinity” best defined, conceptualized, and scientifically measured? Unsurprisingly, across existing research, this has typically depended on the question being asked. Studying the role of masculinity within MASV (or any issue) is no straightforward task, as masculinity is not a unidimensional construct, nor does it even necessarily have an agreed-upon definition or conceptual framework (Whorley & Addis, 2006). The psychology of men and masculinities (PMM) is a rapidly expanding area of research with a range of interdisciplinary influences, epistemologies, methodologies, and theoretical paradigms (Addis et al., 2010; Smiler, 2004; Thompson & Bennett, 2015; Whorley & Addis, 2006; etc.). While a full review of this literature was beyond the scope of this project, a cursory summary of some of its trends, controversies, and limitations helps to frame the current study’s approach.

Often, the psychological study of masculinity has relied heavily upon social constructionism and models of gendered social learning to explore how boys and men come to learn about, perform, or “do” their gender (Addis et al., 2016; Whorley & Addis, 2006). Across the literature, there also seems to be general consensus that certain versions of masculinity – often referred to as “hegemonic masculinity” – are widely viewed as being more accepted and desirable than others (Connell & Messerschmidt, 2005; Thompson & Bennett, 2015). In other words, within a given society or culture, there are often broadly accepted beliefs, expectations, and ideologies when it comes how boys and men are “supposed” to behave, what they should

like and dislike, what values they should hold, and what jobs or careers they should pursue. While these dominant or traditional ideas about masculinity can vary across time, cultures, contexts, institutions, and groups, they consistently play a role in how boys and men experience and navigate their gendered lives (Thompson & Bennett, 2015).

As noted above, research on masculinity has grown rapidly in the past few decades, and in recent years, there have been several reviews (e.g., Smiler, 2004; Thompson & Bennett, 2015; Whorley & Addis, 2006) that have helped summarize and evaluate the overall state of this research. Smiler (2004), for example, conducted a review of psychological concepts and measures of masculinity across 30 years and identified five theoretical “movements” within the PMM literature, all of which remain relevant today. These include approaches that view masculinity as: (1) a unipolar construct (that which is distinct from and opposing femininity), (2) an ideology to which individuals may or may not conform, (3) a source of strain (individual differences in the stress or conflict men feel in response to various gendered situations), (4) a socially constructed entity (and the existence of a multitude of “masculinities” based on time, context, and culture), and (5) a blending of these movements. Across 30 years of scholarship, Smiler (2004) found that our understanding of “masculinity” has evolved into a recognition of “masculinities,” and that early ideas about masculinity as “something that resides within the individual” have also shifted as scholars acknowledge the role of “social and sociocultural influences on an individual’s experience of masculinity” (p. 22). Similarly, in their review of masculinity ideologies, Thompson & Bennett (2015) found a trend in which early research that focused on hegemonic, traditional, and North American models of what it means to be a man eventually gave way to the recognition of multiple masculinities all shaped by cultural context, social class, developmental stage, race/ethnicity, and sexual orientation.

In another review of 10 years of masculinity research in the U.S., Whorley & Addis (2006) found that a vast majority of this research has explored trait-like, stable constructs (e.g., men's gender role stress, gender role conflict, or masculine norm conformity) using homogenous samples and cross-sectional, correlational designs. The authors critiqued these trends, noting that:

...Correlational methods necessarily presume the existence of stable individual differences and place these at the forefront of analyses...despite the common theoretical assumption that the social construction and social learning of masculinity is a historical, developmental, and fluid process. We found no studies, for example, that explicitly set out to examine changes in masculine norms, ideologies, or role conflicts as a function of microvariations in the social contexts of men's lives" (Whorley & Addis, 2006, p. 655).

Each of these reviews (i.e., Smiler, 2004; Thompson & Bennett, 2015; Whorley & Addis, 2006) has identified limitations in the ways in which masculinity has often been operationalized within science. One of the common criticisms concerns the degree to which scholars have continued to conceptualize and measure masculinity in ways that strip away contextual influence, situational variability, and interpersonal fluidity. Instead, research has often relied heavily upon measures of masculinity that suggest there are general differences between individuals – a trend that can inadvertently reinforce the notion that masculinity is something that is trait-like in nature or even essentialist notions about gender (Addis et al., 2010; 2016).

In other words, masculinity has often been treated much like a personality construct, akin to conscientiousness or openness. And while there are, perhaps, some trait-like elements to the ways in which masculinity is constructed and experienced, it can also be shaped by contexts, situations, and moment-by-moment interactions with other people. Consider, for example, a man with certain behavioral tendencies that are informed by his beliefs about masculinity (e.g., he is highly competitive partly due to his belief that, as a man, winning is important). While we might

expect him to enact this competitiveness across many situations, it is also likely that his gendered thoughts, feelings, and behaviors in any given moment are partly contingent upon who he is surrounded by (e.g., male teammates vs. male work colleagues), how they are behaving (e.g., competitively or collaboratively), and the broader context within which those dynamics occur – all of which can impact his sense of “manhood.” Further below, a separate framework will be introduced that supports a more robust and situationally responsive understanding of masculinity. First, however, the section that follows outlines one example of a framework in which masculinity has been conceptualized and measured largely in ways that reflect general, “trait-like” differences between individuals.

Conformity to Masculine Norms

Over the years, a number of different theoretical frameworks and associated self-report questionnaires have been used to capture some form of individual difference when it comes to how boys and men navigate their gendered lives. Some of these approaches have explored the extent to which men experience psychological stress, strain, or conflict associated with their gender role. Commonly used examples of these measures include the Masculine Gender Role Stress scale (MGRS; Eisler & Skidmore, 1987), the Gender Role Conflict Scale (GRCS; O’Neil et al., 1986), and the Subjective Masculinity Stress Scale (SMSS; Wong et al., 2013). Similarly, scholars have also explored individual differences in “masculinity ideologies,” reflecting the “body of prescriptive and proscriptive social norms that sanction men and masculinity performances” (Thompson & Bennett, 2015, p. 1). Within this subset of PMM literature, research has often focused on the degree to which men endorse or conform to some of the social norms and expectations traditionally tied to masculinity (Mahalik et al., 2003), and how this conformity impacts mental health outcomes and other attitudes and behaviors. In their

development of the Conformity to Masculine Norms Inventory (CMNI), Mahalik and colleagues (2003) identified eleven distinct norms that constitute some prominent gender role expectations in men's lives: Winning, Emotional Control, Violence, Risk-Taking, Dominance, Self-Reliance, Primacy of Work, Power over Women, Playboy, and Disdain for Homosexuals. During scale development, Mahalik et al. (2003) also found that conformity to all of these norms is positively associated with men's body image (i.e., desire for muscularity) and negatively associated with men's attitudes toward psychological help seeking. Men's conformity to certain masculine norms has also been shown to predict other outcomes, such as heavy alcohol use. For example, in a study of 776 undergraduate men, researchers found that rigid adherence to being a playboy, taking risks, and winning were all risk factors that predicted alcohol use to the point of intoxication, while being a playboy, risk-taking, and self-reliance were all predictive of alcohol-related problems (e.g., getting into fights after drinking; Iwamoto et al., 2011).

A recent meta-analysis summarized findings from 74 studies (71 all-male samples, four all-female samples, and 3 mixed-gender samples; combined sample size of $N = 19,453$) that explored relationships between the CMNI and outcomes related to mental health (Wong et al., 2016). The authors of the review concluded that masculine norm conformity was often negatively related to positive mental health outcomes and help seeking behaviors and positively related to negative mental health consequences. Nevertheless, results of this meta-analysis also highlighted some nuance in how we can understand the impact of masculine norm conformity. For example, the researchers found evidence that conformity to *some* masculine norms (self-reliance, playboy, and power over women) predicted negative mental health outcomes, while other norms (e.g., risk-taking) were also associated with positive consequences, such as life satisfaction and self-esteem. Findings like this indicate that there are perhaps aspects of

masculine norm adherence that may be adaptive, especially under certain circumstances (Wong et al., 2016).

Use of the CMNI (and shortened versions of the scale, such as the CMNI-46; Parent & Moradi, 2009) has also shown conformity to many of these norms to be predictive of various forms of violent attitudes and behavior. In one study, conformity to the norms of risk-taking, violence, power over women, avoiding emotional involvement in sexual relationships (i.e., acting like a sexual “playboy”), and not wanting to be perceived as homosexual were all significantly predictive of rape-supportive attitudes among men, as well as their sexually violent behavior (Locke & Mahalik, 2005). Another study examined masculine norm adherence in a sample of 258 prisoners and detainees from a New England correctional facility (Amato, 2012). Findings revealed that men who were more violent were more likely to conform to masculinity norms and more likely to experience high levels of gender role conflict, and that each of these two variables explained unique variance in violent behavior above and beyond other variables (e.g., race/ethnicity, age, education, family history of crime).

While empirical research on masculinity in sport is – as noted above – still limited, the CMNI has arguably been the measure used most commonly with athletes. Steinfeldt and colleagues, for example, have conducted a series of studies using the CMNI examining the impact of masculine norm conformity on intrapersonal (e.g., body image) and interpersonal (e.g., bullying) outcomes among male football players. In one sample of 523 college football players, greater conformity to masculine norms was significantly and positively associated with stronger adherence to one’s athletic identity (Steinfeldt & Steinfeldt, 2010). Another study found that athletic identity and conformity to certain masculine norms (e.g., risk taking, emotional control) predicted football players’ drive for muscularity (Steinfeldt et al., 2011). Finally, using a sample

of 206 high school-level athletes, Steinfeldt et al. (2012) found that adherence to certain male role norms significantly predicted football players' acceptance of bullying.

Masculinity as a "Precarious" State

Returning to the earlier discussion regarding the limitations of viewing masculinity solely as a matter of individual differences among men, a separate body of research has recently shed light upon the ways in which masculinity is also perceived to be tenuous and unstable. In addition to conformity to masculine norms, the current study explored how men's sexist and sexually violent attitudes and behaviors are also a product of situational exposure or threat. To conceptualize this aspect of our study, we drew on the theory of precarious manhood (Vandello & Bosson, 2013; Vandello et al., 2008). In a series of six experimental studies, Vandello and colleagues (2008) demonstrated that the social status of manhood is widely viewed (especially in American culture) as (1) difficult to earn, (2) easy to lose, and (3) achieved and maintained through continued public demonstrations of proof. The implications of this theory are extensive, given the likelihood that experiences that may threaten or call into question one's manhood status often elicit heightened anxiety (Vandello et al., 2008).

In their first two studies, Vandello and colleagues (2008) randomly assigned samples of 201 and 141 undergraduate students, respectively, to read a list of proverbs or a list of opinion statements, in which some items characterized either manhood or womanhood as an earned status (e.g., "A boy [girl] must earn his [her] right to be called a man [woman]"). Participants in the first study indicated how much they agreed with and liked each proverb, while those in the second study rated the truthfulness of each opinion statement. Results from both of these studies showed that both men and women more strongly endorsed the idea that manhood, compared to womanhood, is a precarious social status that must be actively earned and defended through

public proof. The third study exposed a sample of 75 undergraduate students to ambiguous statements about someone “no longer being a man” or “no longer being a woman,” and participants were asked to interpret their meaning. As expected, findings showed that participants had an easier time interpreting the manhood version of these statements and explained them primarily through social terms (“He no longer fits society’s definition of being a man”), while the womanhood statements were attributed to physical factors (“She had an operation and is no longer a woman”). The fourth study in this paper tested the extent to which women are perceived to lose their status of womanhood if they “fail” to meet certain societal standards of being a woman (i.e., bearing a child). Researchers found that, while infertile women may be viewed as unattractive, they are unlikely to lose their perceived status as women, while infertile men were more likely to be viewed as childlike or “boys”. In the fifth study, the researchers gave participants false feedback regarding their performance on a test of gender knowledge and measured emotional reactions, in order to assess whether men differ from women when it comes to anxiety elicited from a perceived gender threat. Consistent with hypotheses, findings showed that men responded with greater anxiety than women to gender-threatening feedback. In their sixth and final study, Vandello and colleagues (2008) used a sample of 134 undergraduate students randomly assigned to gender-threatening conditions and measured the degree to which women and men reacted with different forms of aggression to these threats. The findings showed that, when their masculinity was threatened, men more readily exhibited physically aggressive or hostile cognitions (in the form of word-completion tasks), while threats to womanhood had no activating effect on female participants’ aggressive thoughts (Vandello et al., 2008).

Taken together, the early research on precarious manhood suggested that masculinity, unlike femininity, is often viewed as volatile. Failure to meet certain social standards can often

lead to men's status of manhood being questioned or outright denied, and when they perceive their gender status to be under threat, men will often resort to extreme displays of "manhood" to restore this status. In their review of research on this theory, Vandello and Bosson (2013) found that men: tend to experience more stress and anxiety about their gender status than do women; take concerted steps to avoid "femininity" or any situation that might threaten their manhood; and when they are exposed to a gender status threat, often engage in aggressive (e.g., punching) or risk-taking (e.g., financial) behaviors, in an effort to re-establish or reaffirm their masculinity.

More recent studies have demonstrated the cross-cultural relevance of precarious manhood, while at the same time, suggesting that the nature of this "precariousness" is not universally identical, manifesting in slightly different ways across cultural contexts. For example, a qualitative study by DiMuccio et al. (2017) coded interviews with college-aged heterosexual men from both the United States and Denmark about their perceptions regarding how manhood is earned, maintained and lost. While men in both countries endorsed the idea that manhood is demonstrated through protecting others and acting like an adult, U.S. men felt that masculinity is demonstrated through athleticism and the rejection of femininity, while Danish men placed greater emphasize on physical maturation (what the male body "looks like") and the importance of having "feminine" qualities such as expressing affection and hugging male friends (DiMuccio et al., 2017).

Much of the research on precarious manhood has focused how men think, feel, and behave when it comes to navigating a gendered social status that is both unstable and anxiety provoking in nature. For example, research shows that men often perceive forms of physical aggression or interpersonal abuse as justifiable methods of publicly earning or maintaining their status as a man in situations in which their gender status is threatened

(Weaver et al., 2010). Furthermore, research suggests that men's perceived stress, strain, or threat related to their sense of masculinity may contribute to different forms of gendered violence (Moore et al., 2008). In a study of 339 men arrested for violence and court-mandated to intervention programs, Moore and colleagues (2008) explored different links between masculine gender role stress (see Eisler & Skidmore, 1987) and specific forms of violence. Using a multivariate path analysis to control for variance among the different gender role stress domains and dependent variables, Moore et al. (2008) found that gender role stress specifically associated with physical inadequacy (i.e., appearing physically fit and not feminine) accounted for unique variance in men's sexual aggression (as opposed to psychological aggression or physical assault). The researchers speculated that some men might engage in sexual violence in response to perceived threats to their physical and sexual prowess (Moore et al., 2008).

Integrating Masculinity Paradigms

Thus far, this review has outlined two different paradigms that have been used to study masculinity. The first includes various self-report questionnaires often used in cross-sectional research. These scales are typically used to capture some form of individual differences in the degree to which individuals conform to traditional masculine norms (e.g., CMNI; Mahalik et al., 2003), or the extent to which they experience stress (MGRS; Eisler & Skidmore, 1987), strain (Pleck, 1976), or conflict (GRCS; O'Neil et al., 1986) associated with their gendered experiences. The second paradigm, emerging out of social psychology literature, has studied the precariousness of masculinity, relying largely upon experimental research to understand how boys and men respond to a situational gender threat (e.g., Vandello & Bosson, 2013). While there is a rapidly growing body of masculinity research drawing on either of these paradigms

(i.e., individual differences or situational threats), with a few exceptions (e.g., Hunt et al., 2013), they have rarely been used concurrently within a single study. Instead, they often constitute two distinct lines of inquiry, which may speak to some ongoing tensions within the psychology of men literature (Addis et al., 2010, 2016; Levant, 2008).

By integrating the theory of precarious manhood with research on conformity to masculine norms, the current study sought to address some of the ongoing gaps and critiques of the literature on the male gender role, by examining both individual and situational factors that may contribute to the issue of MASV. Integrating these paradigms, at least theoretically, makes sense, given that masculinity can be understood to have both intrapersonal and interpersonal dimensions. The degree to which an individual man cognitively or ideologically subscribes or adheres to social norms of masculinity in general should not preclude consideration for the moment-to-moment influence of situations, contexts, and the behavior of others on various behavioral health outcomes (Addis et al., 2010). The section below introduces one possible example of this within the interpersonal culture of sport.

Cultures of Abusive and Violent Behavior Among Male Athletes

One of the most noteworthy ways in which the current study departed from past research on sexual aggression, as well as sexual aggression specifically tied to sport, is its focus on interconnections between different forms of male interpersonal violence (see Fleming et al., 2015). Specifically, this study explored links between abusive relational practices among male athletes that may influence their perpetration of sexual violence toward women (Messner, 1990). This focus also offers a departure from prior work by shifting the focus away from solely exploring individual-level variables to also examining interpersonal dynamics and cultural practices in sport.

A fascinating mixed methods study by McMahon (2007) on athletes' attitudes toward sexual violence may have (albeit serendipitously) highlighted the value of exploring relational dynamics among athletes around this issue, rather than solely examining individual attitudes or behaviors. While the quantitative data (i.e., survey results) from 205 student-athlete participants in McMahon's (2007) study indicated low acceptance of rape myths and widespread condemnation of sexual violence, follow-up focus groups told a different story: "...once the same types of questions were posed in a group setting *where the student athletes interacted with their teammates*, a different set of responses were provided that included more rape-supportive attitudes and victim-blaming beliefs" (p. 366, italics added). While the incongruence in McMahon's (2007) findings could be due to a range of factors, it nonetheless raises questions around the ways athletes' attitudes toward sexual violence are amenable to peer influence.

One aspect of the off-field interpersonal climate of male sports – often colloquially referred to as "locker room culture" – has often been thought to play a significant role in promoting sexual violence. However, aside from a small number of qualitative studies in the 1990s (Curry, 1991; Schacht, 1996), this culture has received very little empirical attention. Curry's (1991) ethnographic approach to studying male athlete behavior *within* actual locker rooms found that the discourse in this space often consisted of rampant homophobia, regular objectification and dehumanization of women, promotion of rape culture, and repeated attempts among male athletes to degrade or humiliate their peers for their physical appearance, their struggles to cope with pain, or their lack of sexual prowess.

There is already reason to believe that these physicalized and objectifying exchanges among men coexist with and perhaps influence other forms of violence whenever women are present (Kane & Disch, 1993; Schacht, 1996). For example, scholars have noted how the

increased numbers of female sports journalists in the 1980s and 1990s coincided with horrifying incidents of sexual harassment and brutality toward these women when they tried to interview athletes within their locker rooms (Kane & Disch, 1993). Perhaps the most infamous example of this is that of Lisa Olson, a *Boston Herald* journalist who, upon entering the New England Patriots' locker room, faced an onslaught of vulgar comments and gestures from naked players, including sexual taunting, solicitations to "take a bite" of a player's penis, and other forms of humiliation and verbal abuse – an experience Olson later described as "mind rape" (Kane & Disch, 1993; p. 332).

Hazing in Sport as a Ritualized Exemplar of Within-Gender Abuse

The current study focuses specifically on hazing as a recognizable and easily operationalized example of within-gender abuse among male athletes. Research on hazing in sport has documented its prevalence across many time periods, competitive levels (high school, college, professional), age groups, and types of sport. In an eye-opening study of 325,000 NCAA athletes, Hoover (1999) found that two-thirds (65%) of them reported having participated in at least one "questionable" hazing activity (e.g., tattooing, piercing, head shaving, or branding; being forced to wear embarrassing clothing) as a freshman. Furthermore, one in five (21%) participants reported having participated in at least one "unacceptable" and potentially illegal act of hazing, such as a simulated sexual activity or being kidnapped (Hoover, 1999). Similar statistics were found in studies conducted nearly one decade (Allan and Madden, 2008) and two decades later (Hamilton et al., 2016).

Despite the growing body of literature on this issue, scholars have had some difficulty in clearly defining hazing in sport (Crow & MacIntosh, 2009), perhaps because these practices vary widely in terms of severity and legality. Of particular interest to the current study are the

ritualized practices involving: (1) non-consensual or forced participation, (2) physical and sexual touch and bodily objectification, and (3) other forms of abuse (e.g., binge drinking).

Research on sport hazing has begun to challenge the widely held belief among athletes that abusive rites of initiation help to strengthen relationships and bonds within a team. Using a sample of 167 college athletes from multiple U.S. universities, Van Raalte and colleagues (2007) explored the degree to which hazing contributes to athletes' sense of team cohesion. The researchers assessed levels of self-reported past engagement in different forms of hazing ("Did it"; "Saw it"; "Heard about it"; or "Not done, seen, or heard about it") and participants' perceptions of different forms of group cohesion (social cohesion, task cohesion, etc.) within their team. Results showed that "unacceptable" hazing practices (e.g., forced sleep/food deprivation, being tied up in small spaces) were negatively correlated with athletes' sense of group task cohesion (Van Raalte et al., 2007)

On the other hand, the same study showed that more "appropriate" forms of initiation (e.g., completing a ropes course or attending a skit night) were positively associated with perceived levels of social cohesion and team integration (Van Raalte et al., 2007). Similarly, subsequent studies have shown that alternative "hazing" practices that do not rely on forms of humiliation or abuse (e.g., outdoor/adventure-based activities) engender a greater sense of inclusivity, egalitarianism, and peer support within a team (Johnson & Chin, 2016).

Scholars have questioned the widespread continued use of hazing given its illegality in most jurisdictions and increased institutional efforts to curtail these practices (Van Raalte et al., 2007). Disturbingly, research suggests that hazing may persist in part due to coaches who are openly tolerant or even approving of this culture. In a qualitative study on athletes' perceptions of their coaches' attitudes toward or involvement in hazing, some athletes reported that coaches

took a proactive stance against hazing (e.g., a “zero-tolerance policy”), while others “looked the other way” or even actively encouraged it (Kowalski & Waldron, 2010).

Social norms theory (SNT) may also provide insight into some of the psychosocial mechanisms that underlie hazing among male athletes (Waldron, 2012). The tenets of SNT have been used to explain the tendency among members of a group to perceive attitudes and behaviors among peers to be different than their own (Berkowitz, 2003). Research on SNT has shown how behavior can often be influenced by how individuals perceive the attitudes, values, and motivations of their peers. One of the constructs frequently associated with SNT is pluralistic ignorance, which explains how a group practice or norm is perpetuated despite individuals’ private objections or disapproval, because they overestimate the degree to which other members of the group accept the norm (Miller & Nelson, 2002).

The current study tested some of the implications of the sport-hazing culture when it comes to the socialization of male athletes’ attitudes toward sexual violence. Male athletes (and others) often rationalize, justify, and downplay abusive and objectifying practices such as hazing, noting that these behaviors, jokes, degrading comments, and other forms of abuse and harassment among each other or toward others are merely lighthearted banter intended to strengthen fraternal bonds between men (Schacht, 1996; Van Raalte et al., 2007). While research has already challenged the idea that hazing strengthens team cohesion, instead indicating that it undermines it (Van Raalte et al., 2007), very little is known about the impacts of hazing practices on other outcomes, including attitudes toward sexual violence and other aspects of rape culture.

Rape Culture: Masculinity, Rape Myths, Sexism, and Other Predictors of Sexual Violence

The final section of this review will focus largely on the dependent variables in the current study – rape myth acceptance and sexism – and will also briefly explore some other

common predictors of sexual violence. One of the many challenges in researching sexual violence perpetration concerns how to go about realistically and credibly measuring outcomes. As one might expect, research participants are often more likely to disclose sexually violent beliefs and attitudes than they are to self-report that they have, in fact, engaged in sexually violent behavior (Murnen & Kohlman, 2007). Nevertheless, as there is a documented link between sexually violent ideologies and the perpetration of sexual violence (see Bohner et al., 2005; Locke & Mahalik, 2005; Tharp et al., 2013; Yapp & Quayle, 2018; Young et al., 2017), most researchers choose to measure the former since these are often viewed as more “socially acceptable” (Murnen & Kohlman, 2007, p. 153). For example, research shows that men who endorse certain sexually violent beliefs (e.g., “A man is somewhat justified in forcing a woman to have sex with him if he has had sex with her in the past.”) and hostility toward women are more likely to commit rape than those who do not hold these attitudes (Smith & Stewart, 2003).

Most beliefs, attitudes, and cognitive distortions characterized as “sexually violent” or “rape supportive” (Yapp & Quayle, 2018) in the literature are part of what constitute that which is more broadly known as “rape culture.” Rape culture has been defined as “a culture that excuses and condones violence against women particularly rape and sexual assault” (Johnson & Johnson, 2017, p. 2). While some might question this definition based on the assumption that most environments might not actually “condone” sexual violence (at least explicitly), aspects of rape culture are, in fact, alarmingly pervasive when examined more closely. For example, one need not look far to find beliefs and values that excuse, normalize, rationalize, or minimize the issue of rape and other forms of sexual violence – often by blaming rape victims, questioning victims’ credibility, implying victims’ consent, and exonerating or promoting empathy for rape perpetrators, (Baum et al., 2018; Boswell & Spade, 1996; Buchwald et al., 1993; Burnett et al.,

2009; Yapp & Quayle, 2018). Some of these beliefs might be blatant (e.g., “Many women have an unconscious wish to be raped”; Burt, 1980), while others more subtle (e.g., “It shouldn’t be considered rape if a guy is drunk and didn’t realize what he was doing”; McMahon & Farmer, 2011). Ultimately, though, they contribute to broader cultural norms that consistently excuse sexual violence against women while making it nearly impossible for victims and survivors to come forward out of fear they will not be believed or will be blamed for their victimization. Of note, research has shown that attitudes that support rape culture are not solely perpetuated by men. Studies have found that women also endorse these ideologies, even though their levels of endorsement can often be significantly lower than those of men (Suarez & Gadalla, 2010).

Researchers have recently attempted to quantify the construct of rape culture via hierarchical confirmatory factor analysis and in doing so have identified five major underlying components: traditional gender roles, sexism, adversarial sexual beliefs, hostility toward women, and acceptance of violence (Johnson & Johnson, 2017). The current study, in many ways, explored links among these different components (e.g., traditional gender roles, sexism), as well as their influence on rape myth acceptance.

Endorsement of rape myths – “beliefs about rape that are generally false and widely held” – has been one of the most widely studied constructs in the literature on sexual violence, mainly because such beliefs are so commonly linked with sexual violence perpetration (Yapp & Quayle, 2018, p. 1). In their recent systematic review, Yapp and Quayle (2018) examined the impact of rape myth acceptance (RMA) on male-on-female sexual violence. Given the heterogeneity of measurement tools across this research, this review only included studies that measured RMA with several commonly used scales and sexual violence via the Sexual Experiences Survey (Koss & Oros, 1982). Nevertheless, the authors found that RMA significantly differentiated individuals

who engage in sexually violent behaviors from non-perpetrators in eight out of the nine studies included in their analysis. Furthermore, two of these studies found that RMA temporally preceded measures of sexual violence, lending greater support to a possible causal relationship. In much broader review of risk and protective factors for the perpetration of sexual violence, Tharp and colleagues (2013) found a similarly significant association between RMA and sexual violence perpetration (using a range of measurement tools) across more than 25 different studies.

Scholars have even begun to generate evidence of a potentially causal link between RMA and one's proclivity to perpetrate rape. In a study on the "temporal accessibility" of these attitudes, for example, Bohner and colleagues (2015) randomly assigned 107 participants to conditions in which they either completed a measure of RMA first (i.e., before measures of rape proclivity) or completed it after other measures). The researchers found two variables that moderated the relationship between RMA and one's reported likelihood of engaging in an act of sexual violence that was depicted in a hypothetical vignette: the order in which participants completed the measure and one's self-reported history of sexual coercion. In other words, the positive relationship between RMA and rape proclivity was stronger for men with a history of sexually aggressive behavior and men who were first primed to reflect on their rape supportive attitudes (Bohner et al., 2005).

Over the years, several studies have also conceptualized RMA as an outcome variable (similar to how it was used in the current study) and experimentally tested factors that contribute to these attitudes. For example, in an early study with a sample of 307 undergraduate men, Malamuth and Check (1985) randomly assigned participants to conditions in which they listened to audiotaped recordings of a passage, some of which depicted the myth that rape results in sexual arousal for the victim. The researchers found that exposure to this myth increased men's

belief in similar rape myths, and that this effect was stronger for men with higher inclinations for aggressive behavior against women. These findings suggest that exposure to aggressive forms of pornography contribute to the formation or amplification of RMA (Malamuth & Check, 1985). Similarly, studies have shown that men who are exposed to video game content depicting the sexual objectification of women and violence against women endorse higher rape myth acceptance than women exposed to the same content or men exposed to other video games (Beck et al., 2012).

A relatively recent meta-analysis on rape myths sought to aggregate evidence on its many relationships with demographic, attitudinal, and behavioral factors for the purposes of clarifying how these attitudes should be integrated into, and addressed by, prevention programming (Suarez & Gadalla, 2010). The authors included 37 studies (total sample size of $N = 11,487$) in their review, and overall, findings included significantly higher levels of RMA among men than women, significant and positive associations between RMA and hostile attitudes and behaviors toward women (e.g., “playboy” behavior, sociosexuality, endorsement of degrading images), and significant and positive relationships between RMA and racism, heterosexism, classism, and ageism (Suarez & Gadalla, 2010).

For the purposes of the current study, prior research has linked higher rape myth acceptance with various aspects of masculinity and the male gender role experience among men, including endorsement of traditional masculine ideologies (Lutz-Zois et al., 2015), greater conformity to masculine norms (Cole et al., 2020; Le et al., 2020; Locke & Mahalik, 2005), and greater experiences of gender role conflict (Kassing et al., 2005). Furthermore, men (but not women) who are exposed to video games with violence and degrading images of women tend to endorse greater acceptance of rape myths (Beck et al., 2012). Finally, recent evidence suggests

that men are more likely to blame rape victims and exonerate perpetrators after being exposed to a masculinity threat (Munsch & Willer, 2012). While a formal measure of rape myth acceptance was not used in Munsch and Willer's (2012) study, the experimental outcomes measured (e.g., percentage of responsibility assigned to date rape victims) were very similar to the attitudes measured in most rape myth acceptance scales (e.g., Burt, 1980; McMahon & Farmer, 2011). Overall, the evidence suggests that men's acceptance of rape myths is largely shaped by different aspects of their experiences with masculinity in the world – both in how they relate to many of the traditional norms and ideologies associated with the male gender role, as well as how they respond in any given moment when they perceive their masculinity to be threatened or they are exposed to a highly gendered stimulus (e.g., Beck et al., 2012).

Similar links have consistently been found between masculinity and sexism, whereby men who report greater conformity to masculine norms (e.g., Fox & Tang, 2014), greater experience of conflict within their gender role (O'Neil, 2008), and are exposed to a masculinity threat (O'Connor et al., 2017), are more likely to endorse sexism or express amusement with sexist humor. In many ways, these relationships are unsurprising. Exposure to traditional norms and pressures around masculinity often entails simultaneous indoctrination into the ideology that, in order to maintain one's social status as a man, men must consistently reject that which is perceived as feminine. Femininity – and, by extension, girls and women – is consistently positioned within hegemonic models and narratives of masculinity as inferior, necessarily submissive, or in need of domination or protection. This is communicated through many of the social norms of masculinity (e.g., "Women should be subservient to men"; "Things tend to be better when men are in charge"; Parent & Moradi, 2009). It is communicated through experiences that men report as sources of gendered stress (e.g., "Being outperformed in a game

by a woman”; Eisler & Skidmore, 1987). And it is communicated in the form of research that finds that, when their sense of masculinity is threatened, men resort to sexism as a means of restoring their gender status (O’Connor et al., 2017).

Appendix C

Informed Consent

Project Title	<i>Project Title: Male Athletes' Reactions to Hazing</i>
Purpose of the Study	<i>This research is being conducted by Ryan Sappington, M.S., M.Sc. and Mary Ann Hoffman, Ph.D. at the University of Maryland, College Park. We are inviting you to participate in this research project because you are at least 18 years old, male, and are currently an NCAA Division I, II, or III student-athlete. The purpose of this research project is to better understand male college athletes' attitudes and reactions toward initiation or hazing practices in sport.</i>
Procedures	<p><i>This is an online study that involves completing a series of short surveys about you, reading a scenario about hazing on a sports team, and providing some reactions to that scenario. In total, this study is anticipated to require 15-20 minutes of your time. Some examples of survey items include (responses ranging from Strongly Disagree to Strongly Agree):</i></p> <ul style="list-style-type: none"> <i>• "I hate it when people ask me to talk about my feelings."</i> <i>• "It is important for me to win."</i>
Potential Risks and Discomforts	<i>There may be some risks from participating in this research study. The scenario you read may contain content that is distressing in nature, and this may induce feelings of discomfort. You are permitted to skip questions you do not wish to answer. If for any reason you feel you need to contact the researchers, you can do so at rsapp7@umd.edu. There is also the risk of inadvertent disclosure if you do not complete the survey in a private location and someone sees your responses.</i>
Potential Benefits	<i>There are no direct benefits from participating. However, we hope that your participation in this study will help contribute to a better understanding of how athletes view hazing and related issues.</i>
Confidentiality	<i>Your responses in this study are anonymous and confidential and will not contain information that may personally identify you. The research team will minimize any potential loss of anonymity or confidentiality by removing identifying information from the research data and storing data in a locked office and password protected computer. Moreover, your identifying information (including any email addresses for the raffle) will not be linked to your survey or written responses. Only members of the research team will have access to your responses. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Your information may be shared with representatives of the University of Maryland, College Park or</i>

	<i>governmental authorities if you or someone else is in danger or if we are required to do so by law.</i>
Compensation	<i>Your participation in this research study will include the option of entering into a raffle for one of ten \$50 Amazon gift cards. You will be responsible for any taxes assessed on the compensation.</i>
Right to Withdraw and Questions	<p><i>Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.</i></p> <p><i>If you decide to stop taking part in the study, if you have questions, concerns, or complaints, or if you need to report an injury related to the research, please contact the investigator:</i></p> <p><i>Ryan Sappington, MS, MSc</i> 3214 Benjamin Building University of Maryland College Park, MD 20742 301-405-2865 rsapp7@umd.edu</p> <p><i>or project advisor, Mary Ann Hoffman, PhD:</i> 3214 Benjamin Building University of Maryland College Park, MD 20742 301-405-2865 hoffmanm@umd.edu</p>
Participant Rights	<p><i>If you have questions about your rights as a research participant or wish to report a research-related injury, please contact:</i></p> <p style="text-align: center;">University of Maryland College Park Institutional Review Board Office 1204 Marie Mount Hall College Park, Maryland, 20742 E-mail: irb@umd.edu Telephone: 301-405-0678</p> <p><i>For more information regarding participant rights, please visit:</i> https://research.umd.edu/irb-research-participants</p> <p><i>This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</i></p>

Appendix D

Study Debriefing

Thank you for completing this survey! If you would like to be entered into a drawing for one of four \$50 Amazon gift cards, please select “Yes” from the options at the bottom of the page, and click the arrow. By selecting “Yes,” you will be directed to a separate survey link, where you will have the opportunity to provide your email address. If you would not like to be entered into the drawing, please select “No”, and click the arrow. Remember that your email address will be stored separately from your responses on this survey (i.e., your responses and your email address will not be linked). Please remember to click the arrow below to submit your responses.

At this time, we would also like to provide you some additional information about this research. The nature of this study was only partially described from the start, and we apologize for not providing you with all of the information at the beginning. We did not do so because it was necessary for the integrity of our research design, the data we are collecting, and the conclusions we can make regarding our findings. Please note that any additional information you read here does not in any way change your rights to anonymity and confidentiality as a participant. Your responses will remain completely anonymous and confidential and will not be connected to any identifying information. We are only interested in overall conclusions from this research, aggregated from all participants. This study explored how reading about a hazing scenario in sport can impact attitudes and beliefs related to sexual assault. In this study, you were randomly assigned to read one of several scenarios depicting different forms of hazing or initiation. All participants were asked to read the scenario and provide their reactions to it, and afterwards, complete several other surveys designed to measure attitudes and beliefs about sex and sexual assault.

If you feel any heightened psychological distress or discomfort following your participation in this study and would like to talk to someone about it, we encourage you to reach out to the counseling center at your university or the sport/clinical psychology staff in your athletic department. You can also contact any of the mental health helplines/hotlines below:

Crisis Chat: <http://www.contact-usa.org/chat.html>

National Suicide Lifeline: 800-273-TALK (8255)

Substance Abuse and Mental Health Services Administration: 800-662-HELP (4357)

Rape, Sexual Assault, Abuse, and Incest National Network (RAINN): 800-656-HOPE

National Alliance on Mental Illness: Text NAMI to 741741

If you have concerns about your rights as a participant in this study, please contact the University of Maryland IRB at 301-405-0678 or irb@umd.edu. If you would like to have your responses/data removed from this study, would like to request a copy of this page, or have further questions and/or concerns, please contact Ryan Sappington at rsapp7@umd.edu.

Thank you again for your participation!

If you would like to be entered into a drawing for one of four \$50 Amazon gift cards, please select “Yes”

- Yes
- No

Appendix E Vignettes

[Bracketed information not visible to participants]

Instructions: Please read the scenario below depicting an initiation activity for freshmen on a college sports team. You will be asked to provide your reactions to this scenario on the next page. As you read, imagine yourself as an incoming freshman athlete on this team, and imagine that you are participating in the activity described below.

[Standard Vignette Preamble]

After being recruited out of high school, you arrive on college campus for preseason as a freshman student-athlete. Several days into preseason, the team captain (a senior) texts you and the other freshmen, telling you to come to the locker room late one evening for “team-building activities.” Upon your arrival, you discover that the rest of the team has already gathered for an “annual tradition.” The captain begins talking to you and the other freshmen: *“We gathered you guys without the coaches because we think it’s important to do some team building on our own before the season starts,”* he says... [Each vignette condition is continued below]

1. Experimental Hazing Condition #1 (Forced Nudity and Touch):

“Each of you will first strip down naked.” As the other older players start to laugh and cheer, he then turns and pulls some boxes from of the lockers next to him and begins handing out electric razors to each of you. *“We pride ourselves in being a clean-shaven team. You will pair up with another freshman, and your job is to shave the pubic hair from his genitals. And don’t even think about complaining or sitting out. We’ve all done this activity as freshmen, and you don’t want to be known as ‘soft’ your whole four years here. Like we’ve done in previous years, the seniors will be judging your work for speed and cleanest shave.”* You and the other freshmen begin removing your clothes and divide into pairs. As you start shaving each other, the older guys shout insults at all of you, calling you names and commenting on your weight and penis size.

2. Experimental Hazing Condition #2 (Forced Nudity [with no touch]):

“Each of you will first strip down naked.” As the other older players start to laugh and cheer, he turns and removes a small stack of papers from the locker next to him and begins handing them out to each of you. *“On this paper are the words to our school’s fight song. Each of you will pair up with another freshman. You’re going to be singing the fight song in front of us older guys while performing a choreographed dance number. We’ll be judging your performance on creativity and enthusiasm. And don’t even think about complaining or sitting out. We’ve all done this activity as freshmen, and you don’t want to be known as ‘soft’ your whole four years here.”* You and the other freshmen begin removing your clothes and divide into pairs. As you start singing, the older guys shout insults at all of you, calling you names and commenting on your weight and penis size.

3. Experimental Hazing Condition (Forced Binge Drinking):

“As you probably already know, this team throws the drunkest parties on campus.” As the other older players start to laugh and cheer, he turns and begins removing cases of beer and handles of vodka from the lockers next to him. *“We need to trust that you guys won’t be ruining that reputation. Each of you will pair up with another freshman. We’re going to spend the next two hours playing drinking games with this beer. But you’ll also have one handle of vodka between the two of you to see which freshmen pair finishes the most vodka at the end of the night. And don’t even think about complaining or sitting out. We’ve all done this activity as freshmen, and you don’t want to be known as ‘soft’ your whole four years here.”* You and the other freshmen pair off and immediately begin taking pulls from the handle of vodka as the older players laugh.

4. Control Hazing Condition (Consensual Team-Building Activity):

“College can be a massive adjustment, and we know that some of you freshmen might be feeling overwhelmed.” He goes on to explain that, each year, the team does an activity in which freshmen have the opportunity to talk to older players about their own learning experiences. *“Honestly, some of us have made mistakes that almost cost us our scholarships – whether it’s alcohol or drug abuse, or just trying to stay academically eligible. We’ve messed up and we want to help you avoid doing the same. If you do get in trouble, we at least want you to feel like you can come talk to us about it.”* He clarifies that participation in this discussion is voluntary, but that *“we hope you email or talk to us in private if you face any of these issues.”* You and the other freshmen all agree to stay, and some of the older players begin speaking about their experiences.

[Word count for each vignette (including preamble): 257]

[Note: See vignette pilot testing materials in Appendix F]

Appendix F

Pilot Testing Items (Manipulation Check)

Instructions: Below are some questions designed to assess your understanding of the scenario you just read. Please indicate your response to each item on the response scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *agree*, 4 = *strongly agree*).

1. In the scenario you read, athletes were told that they had to participate (i.e., they were not given the option to “sit out”)
2. Athletes in this scenario were forced to touch each other (i.e., engage in some form of physical contact).
3. Athletes in this scenario were forced to be naked in front of their peers.
4. Athletes in this scenario were forced to consume large amounts of alcohol.
5. Athletes in this scenario were asked to do a scavenger hunt.
6. This scenario was believable (i.e., you could imagine something like this happening on a real college sports team).

Appendix G
Hazing Appraisal Items (Used in Main Study):
Personal Favorability and Perceived Peer Favorability Ratings

Instructions: Thinking about the scenario you just read, please respond to the following items.

1. Approximately what proportion of all NCAA male college athletes do you think would ***approve*** of this activity as a form of “team bonding”?
 - Almost None
 - Some
 - About half
 - Most
 - Almost All
2. Approximately what proportion of all NCAA male college athletes do you think would consider this activity to be ***harmful***?
 - Almost None
 - Some
 - About half
 - Most
 - Almost All
3. To what extent do you ***approve*** of this activity as a form of “team bonding”?
 - Strongly Disapprove
 - Disapprove
 - Neither Approve Nor Disapprove
 - Approve
 - Strongly Approve
4. To what extent do you consider this activity to be ***harmful***?
 - Not at all harmful
 - Barely harmful
 - Somewhat harmful
 - Harmful
 - Extremely harmful
5. The scenario you read was believable (i.e., you could imagine something like this happening on a real college team, even if it’s not your team or any team you’ve been on).
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree

Appendix H

Conformity to Masculine Norms Scale-46 (CNMI-46; Parent & Moradi, 2009)

Instructions: Thinking about your own actions, feelings and beliefs, please indicate how much you personally agree or disagree with each statement below by selecting 0 for “Strongly Disagree”, 1 for “Disagree”, 2 for “Agree”, or 4 for “Strongly Agree”. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering.

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

- | | |
|-----------------------------------------------------------------|-------------------------------------------------------------------|
| 1. In general, I will do anything to win. | 25. I like to talk about my feelings. |
| 2. If I could, I would frequently change sexual partners. | 26. I never ask for help. |
| 3. I hate asking for help. | 27. More often than not, losing does not bother me. |
| 4. I believe that violence is never justified. | 28. I frequently put myself in risky situations. |
| 5. Being thought of as gay is not a bad thing. | 29. Women should be subservient to men. |
| 6. In general, I do not like risky situations. | 30. I am willing to get into a physical fight if necessary. |
| 7. Winning is not my first priority. | 31. I feel good when work is my first priority. |
| 8. I enjoy taking risks. | 32. I tend to keep my feelings to myself. |
| 9. I am disgusted by any kind of violence. | 33. Winning is not important to me. |
| 10. I ask for help when I need it. | 34. Violence is almost never justified. |
| 11. My work is the most important part of my life. | 35. I am happiest when I'm risking danger. |
| 12. I would only have sex if I was in a committed relationship. | 36. It would be enjoyable to date more than one person at a time. |
| 13. I bring up my feelings when talking to others. | 37. I would feel uncomfortable if someone thought I was gay. |
| 14. I would be furious if someone thought I was gay. | 38. I am not ashamed to ask for help. |
| 15. I don't mind losing. | 39. Work comes first. |
| 16. I take risks. | 40. I tend to share my feelings. |
| 17. It would not bother me at all if someone thought I was gay. | 41. No matter what the situation I would never act violently. |
| 18. I never share my feelings. | 42. Things tend to be better when men are in charge. |
| 19. Sometimes violent action is necessary. | 43. It bothers me when I have to ask for help. |
| 20. In general, I control the women in my life. | 44. I love it when men are in charge of women. |
| 21. I would feel good if I had many sexual partners. | 45. I hate it when people ask me to talk about my feelings. |
| 22. It is important for me to win. | 46. I try to avoid being perceived as gay. |
| 23. I don't like giving all my attention to work. | |
| 24. It would be awful if people thought I was gay. | |

Appendix I
Communal Management Subscale of the Bidimensional Impression Management Index
(BIMI; Blasberg et al., 2014)

Instructions: Please indicate the degree to which you agree or disagree with the following statements.

1 = Strongly Disagree
2 = Mostly Disagree
3 = Somewhat Disagree
4 = Neither Agree Nor Disagree
5 = Somewhat Agree
6 = Mostly Agree
5 = Strongly Agree

1. I have done things that I don't tell other people about. (R)
2. I don't gossip about other people's business.
3. There have been occasions when I have taken advantage of someone. (R)
4. I have said something bad about a friend behind their back. (R)
5. I sometimes tell lies if I have to. (R)
6. I never swear.
7. I never cover up my mistakes.
8. When I hear people talking privately, I avoid listening.
9. I have never dropped litter on the street.
10. I often drive faster than the speed limit. (R)

Appendix J
Positive and Negative Affect Schedule
(PANAS; Watson, Clark, & Tellegen, 1988)

Instructions: This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word.
Indicate to what extent you feel this way right now, that is, at the present moment. Use the following scale to record your answers.

- 1 = Very slightly or not at all
2 = A little
3 = Moderately
4 = Quite a bit
5 = Extremely

Interested	Irritable
Distressed	Alert
Excited	Ashamed
Upset	Inspired
Strong	Nervous
Guilty	Determined
Scared	Attentive
Hostile	Jittery
Enthusiastic	Active
Proud	Afraid

Appendix K
Updated Illinois Rape Myth Acceptance Scale
(McMahon & Farmer, 2011)

Instructions: Please rate your level of agreement with each statement below using the following scale:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree Nor Disagree
- 4 = Agree
- 5 = Strongly Agree

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

Appendix L
Ambivalent Sexism Inventory
(Glick & Fiske, 1996)

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

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neither Agree Nor Disagree
- 4 = Agree
- 5 = Strongly Agree

1. No matter how accomplished he is, a man is not truly complete as a person unless he has the love of a woman.
2. Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for "equality."
3. In a disaster, women ought not necessarily to be rescued before men.
4. Most women interpret innocent remarks or acts as being sexist.
5. Women are too easily offended.
6. People are often truly happy in life without being romantically involved with a member of the other sex.
7. Feminists are not seeking for women to have more power than men.
8. Many women have a quality of purity that few men possess.
9. Women should be cherished and protected by men.
10. Most women fail to appreciate fully all that men do for them.
11. Women seek to gain power by getting control over men.
12. Every man ought to have a woman whom he adores.
13. Men are complete without women.
14. Women exaggerate problems they have at work.
15. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.
16. When women lose to men in a fair competition, they typically complain about being discriminated against.
17. A good woman should be set on a pedestal by her man.
18. There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances.
19. Women, compared to men, tend to have a superior moral sensibility.
20. Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.
21. Feminists are making entirely reasonable demands of men.
22. Women, as compared to men, tend to have a more refined sense of culture and good taste.

Appendix M

Demographic Questions

Instructions: This section of the survey includes standard questions about demographic information. Please note that we will not focus on your individual responses. Instead, we will combine your responses with those of everyone else who completes this survey to generate a summary of participants (e.g., average age).

Age (years)

- Move the slider below to indicate your age in years:

0 10 20 30 40 50 60 70 80 90 100

Race/Ethnicity

- Please select the options below that best describe your race (check all that apply)
 - ☐ American Indian or Alaska Native
 - ☐ Asian or Asian American
 - ☐ Black or African American
 - ☐ Hispanic or Latino/Latina/Latinx
 - ☐ Native Hawaiian or Other Pacific Islander
 - ☐ White
 - ☐ Other (please specify)_____

Gender Identity

- Please select the option that best describes your gender identity:
 - ☐ Man
 - ☐ Woman
 - ☐ Transgender man
 - ☐ Transgender woman
 - ☐ Gender non-binary
 - ☐ Other (please specify)_____

Sexual Identity/Orientation

- Please select the option that best describes your sexual identity/orientation:
 - ☐ Lesbian
 - ☐ Gay
 - ☐ Bisexual
 - ☐ Heterosexual
 - ☐ Asexual
 - ☐ Other (please specify)_____

Are you currently an NCAA Division I varsity intercollegiate athlete?

- Yes
- No

What intercollegiate/NCAA sport(s) do you compete in? (check all that apply)

- Football
- Basketball
- Soccer
- Baseball
- Softball
- Lacrosse
- Rugby
- Field Hockey
- Track & Field or Cross Country
- Tennis
- Water Polo
- Volleyball
- Gymnastics
- Ice Hockey
- Swimming & Diving
- Wrestling
- Golf
- Rowing
- Other (please specify): _____

What sports have you played throughout your life, including before college (check all that apply)?

- Football
- Basketball
- Soccer
- Baseball
- Softball
- Lacrosse
- Rugby
- Field Hockey
- Track & Field or Cross Country
- Tennis
- Water Polo
- Volleyball
- Gymnastics
- Ice Hockey
- Swimming & Diving
- Wrestling
- Golf
- Rowing
- Other (please specify): _____

Please select the option below that best describes your college status:

- Freshman

- Sophomore
- Junior
- Senior
- Other (please specify): _____
- Not applicable (I'm not currently a college student)

Are you currently a member of a Greek organization (fraternity/sorority)?

- Yes
- No

Social Class

- Think of the ladder below as representing where people stand in the United States. At the top of the ladder are the people who are best off, those who have the most money, most education, and best jobs. At the bottom are the people who are the worst off, those who have the least money, least education, and worst jobs or no job.
 - Where would you place yourself on this ladder? (1-10, drop down menu)

Do you consider yourself as someone with a disability?

- Yes
- No

Were you born in the United States?

- Yes
- No

Are you an international student (i.e., a student who is not a U.S. citizen)?

- Yes
- No

In which NCAA division do you currently compete as a student-athlete?

- Division I
- Division II
- Division III

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