

INFLUENCE OF VICTIM, PERPETRATOR, AND RESEARCH PARTICIPANT GENDER
ON RAPE MYTH BELIEFS AND PERCEIVED OCCURRENCE OF SEXUAL ASSAULT

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ABSTRACT

INFLUENCE OF VICTIM, PERPETRATOR, AND RESEARCH PARTICIPANT GENDER ON RAPE MYTH BELIEFS AND PERCEIVED OCCURRENCE OF SEXUAL ASSAULT

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Although there is extensive research regarding the negative effects of rape and rape myth beliefs regarding women (e.g., juries acquitting perpetrators, fear of not being believed by authorities, depression, post-traumatic stress disorder, etc.) there is a lack of research regarding the negative consequences of rape myth beliefs pertaining to men. Additionally, when examining bystander rape myth beliefs, there is little to no research on transgender and gender diverse (TGD) individuals. This study analyzed if victim, perpetrator, and research participant gender affect identification of sexual assault. Differences in the acceptance of male rape myth beliefs based on different vignette scenarios with various combinations of victim and perpetrator gender were analyzed. These factors were measured through the utilization of four vignettes containing different victim and perpetrator gender combinations, and the gender of participants (cisgender woman, cisgender man, or TGD individuals). Results demonstrated that gender identity does have a three-way interaction effect on level of sexual assault agreement, but there were no significant differences in agreement level across gender identity regardless of vignette characteristics. Additionally, there was a nonsignificant three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' level of male rape myth beliefs after reading the vignettes. A significant interaction effect was found between the victim's gender identity and perpetrator's gender identity on results of the male rape

myth belief scale. Follow-up analyses demonstrated cisgender men are less likely to agree an instance of sexual assault occurred when a man is a victim and a woman is a perpetrator, as well as hold higher rape myth beliefs.

Keywords: rape myth beliefs, sexual assault, male rape, female rape, transgender and gender diverse individuals

Influence of Victim, Perpetrator, and Research Participant Gender on Rape Myth Beliefs and Perceived Occurrence of Sexual Assault

INTRODUCTION

Adult sexual assault (SA) is an international concern affecting individuals of all ages. SA refers to “any sexual act, attempt to obtain a sexual act, or other act directed against a person’s sexually using coercion, by any persons regardless of their relationship to the victim, in any setting” (World Health Organization [WHO], 2020). Sexual assault (SA) results in a sequelae of negative psychological, emotional, and physiological outcomes. For example, 17%–65% of people with a history of sexual assault develop posttraumatic stress disorder (PTSD), 13%–51% meet diagnostic criteria for depression, 12–40% experience symptoms of anxiety, 13–49% develop alcohol use disorders, 28–61% develop drug use disorders, 23–44% experience suicidal ideation, and 2–19% attempt suicide (Dworkin et al., 2017). Furthermore, the type of SA can have varying results in psychopathology. For example, forcible rape was associated with an increased risk of major depressive disorder (MDD), while both forcible and drug/alcohol facilitated rape were associated with an increased risk for PTSD (Dworkin et al., 2017). Although SA is an international problem affecting individuals regardless of age, gender, culture, and socioeconomic class, substantial discrepancies exist regarding current research.

An additional discrepancy regarding SA research involves the dearth of information regarding men’s mental health outcomes and treatment seeking behaviors. SA research is primarily centered on women’s physical, psychosocial, and psychopathological outcomes. Although SA disproportionately effects women, with approximately 1 in 3 women experiencing sexual assault in their lifetime, men are often left out of the literature (WHO, 2021). According

to Dworkin and colleagues (2017), 1-3% of men will experience sexual assault in their lifetime. Additionally, approximately 7.6% of boys experience an episode of childhood sexual assault, with a global estimation of 25-35% of assaulted individuals (including females), being below the age of 7 (Habigzang et al., 2016; Van Duin et al., 2018). Although addressing the psychopathological, psychosocial, and health outcomes of sexually assaulted women is imperative, it is clear that young boys and men are understudied. According to Rogers (1998), the research, help, and support for male rape victims are approximately 20 years behind that of female victims.

An additional issue regarding SA research involves obtaining accurate statistics regarding the frequency of sexual offenses (Russel & Hand, 2017). According to Flatley (2016), sexual offenses increased 29% since 2014. However, reasons for this increase are unclear, as some researchers suggest an improvement in recording sexual offenses accounts for the increase, while others attribute the increase to a willingness to report (Russel & Hand, 2017). Although willingness to report may contribute to the increase in recorded sexual offenses, only 15% of rape victims report the crime to the police (Ministry of Justice, 2013). Research suggests that victims do not report SA because they believe they will be ignored by authorities, the crime is not important enough to report, or have feelings of embarrassment about the attack (Grubb & Harrower, 2009). Additionally, research suggests that among the most common reasons individuals choose not to report sexual offenses are due to victim-blaming attributions where the victim holds self-blaming attitudes or beliefs others will blame them for the crime (Russel & Hand, 2017). Current research suggests that the acceptance of victim-blaming attributions and beliefs predict the likelihood of individuals demonstrating rape-supportive attitudes (Russel &

Hand, 2017). The acceptance of rape myths and beliefs among individuals place most, if not full responsibility of the SA on the victim.

Acceptance of Rape Myths and Beliefs

The general underreporting of sexual assault among men, women, and TGD victims, along with the lack of research regarding the psychopathological outcomes of men, poses a great concern. An explanation for the lack of research is internalized and societal rape myth beliefs surrounding sexual assault and victimization. Rape myths are beliefs that generalize, trivialize, or deny sexual assault; undermine the importance of reporting the event; invalidate the legitimacy of the victim's experience; and create barriers to legislation (Campbell, 2017). Additionally, rape myths attribute blame to the victim, rather than the perpetrator, and minimize the enduring consequences of sexual assault (Campbell, 2017). Research evidence suggests that among the most common reasons why individuals fail to report incidents of sexual assault is due to the fear that others will blame them for its occurrence (Russel & Hand, 2017). Furthermore, individuals who have rape myth beliefs and experience assault often blame themselves for not resisting the attack or do not label their experience as rape due to self-blaming attitudes (Peterson & Muehlenhard, 2004). Additionally, jurors on rape-related cases who hold high rape-myth beliefs are more likely to acquit defendants and place blame on the victim (Pollard, 1992; Schutte & Hosch, 1997).

Dinos and colleagues (2015) found that juror decision-making in rape-related cases is influenced by the clothing and character of the victim. A meta-analysis reviewing data from 28 studies found that victims who wore revealing clothing or were judged to be less respectable were significantly more likely to be held responsible for instances of rape (Whately, 1996). Additionally, behavior that the jury deemed 'incautious' of female victims resulted in these

individuals being held responsible for their attack, rather than the perpetrator (Pollard, 1992). Furthermore, delay in reporting an assault, lack of physical resistance or injury, use of intoxicants (e.g., alcohol), and a calm demeanor after the assault or during the trial serve as factors that fail to convince jurors that the victim has been raped (Dinos et al., 2015). Given the numerous negative outcomes related to rape myth beliefs, additional research into their influences and associations could be critical to helping rape survivors.

Theory Informing Rape Myth Beliefs

Previous research suggests evidence of the acceptance of the just world belief theory (JWB) as a predictor of the acceptance of rape myths beliefs (Hayes et al., 2013). The JWB theory (Lerner, 1980) attempts to explain how individuals perceive their world as a fair and safe place, and how people place blame on others' behavior based on that world view (Hayes et al., 2013). The JWB theory argues that individuals believe people receive the treatment they deserve. For example, a common JWB is that negative things will happen to "bad people" due to the consequences of their behavior (Hayes et al., 2015). Due to the JWB theory maintaining that positive or negative consequences are the result of an individual's corresponding actions, specific beliefs regarding a just world allow people to feel a sense of safety and predictability based on the notion they have control over their actions (Hayes et al., 2013). However, acceptance of JWB has implications for victimization experiences (Hayes et al., 2013).

An individual's JWB may be challenged when a perceived "good" person has been victimized. Due to this, people may attempt to reinforce their JWB by trying to restore justice through punishing the offender, trying to nullify or deny the injustice by blaming the victim, or by making the injustice tolerable enough to live with through the belittlement of the victimization (Lerner et al., 1976). Victim-blaming is often the result of those who hold high

JWBs (Hayes et al., 2013). These individuals will find instances in the victim's behavior, such as drinking alcohol or dressing provocatively, to hold the victim, at minimum, partially responsible for the incident (Hayes et al., 2013). This leads to individuals high in JWBs believing that SA offenses occurred for reasons favoring the perpetrator, displaying acceptance of rape myth beliefs (Russel & Hand, 2017).

A study analyzing the JWBs and their influences on victim-blame found that respondents with stronger JWBs attributed more victim-blame and less perpetrator-blame in instances of SA (Strömwall et al., 2012). Additionally, female respondents with strong JWBs attributed blame to the victims rather than the perpetrators in stranger-rape scenarios (Strömwall et al., 2012). However, literature regarding the relationship between JWBs and victim-blaming remains inconclusive due to the lack of research and mixed results from existing studies (Haye et al., 2013). It is important to understand JWB and its theoretical influence of different rape myth beliefs and measures utilized in this research. For example, the *Male Rape Myth Acceptance Scale Revised* (MRMAS) states “A man who fails to escape a sexual attack is partially responsible for his rape,” (Hine et al., 2021; See Appendix E). An understanding of JWB provides clarity as to why questions such as this are asked on the rape myth belief scales utilized in this study, as well as supply an understanding for why individuals hold rape myth beliefs.

Gender Differences in Acceptance of Rape Myth Beliefs

Previous literature suggests differences among men and women¹ in acceptance of rape myth beliefs. Hockett and colleagues (2015) found men have more negative attitudes toward rape

¹ Note: Although most research uses male and female, we are choosing to use men and women because most research does not explain if their participants are cisgender. To reduce the problematic overemphasis of sex assigned at birth in research, we are referring to gender identity.

victims overall (e.g., placing responsibility of the assault on the victim, blaming the victim, and minimizing the assault) than women. Additionally, men are more likely to be skeptical of sexual assault research and reject findings due to hostile sexism (Betz et al., 2023). Hostile sexism refers to the ideology that women are power-hungry, emasculating, and eager to claim discrimination to gain an unfair advantage over men (Betz et al., 2023). Furthermore, men tend to downplay the occurrence and impact of sexual assault compared to women (Betz et al., 2023). The differences in men's and women's negative perceptions of rape increased as assault situations become more ambiguous. For example, in acquaintance/date rape and relationship rape vignettes (scenarios describing assault between a woman and someone she has interacted with briefly and assault within romantic relationships), men reported greater attributions of victim responsibility and blame when compared to women (Hockett et al., 2015).

In addition to acquaintance/date rape and relationship rape, men differed in blame attribution regarding the gender of the victim compared to women. Men attribute more blame to victims regardless of being a man or woman, where women attribute more empathy and sympathy toward the victims regardless of gender (Acosta, 2021). However, men and women did not significantly differ in rape myths and beliefs towards victims of rape situations that were consistent with problematic views of what constitutes "real rape" (i.e., situations in which a sober woman is attacked by a stranger in the middle of the day, receiving visible injuries, and immediately reporting the incident to the police; Hockett et al., 2015). Previous research suggests men blame male victims for rape more than female victims due to endorsing male stereotypes (e.g., men should be strong enough to defend themselves; Acosta, 2021). Additionally, differences in rape myth beliefs among men and women are believed to be due to an assumption of similarity based on shared gender (Grubb & Turner, 2012). Women have more empathy with

victims identified as women due to an understanding of life experiences as a woman. However, Diamond-Welch and colleagues (2018) argue this explanation relies upon cisnormative assumptions (see below) of sex and gender identity, as well as fails to recognize likelihood of victimization as another source of similarity.

Relying on cisnormative assumptions of sex and gender within research assumes all participant's sex (male/female identity) is representative of their gender (man/woman identity; Diamond-Welsh et al., 2018). Results of these studies cannot be generalized to transgender, non-binary, and other gender-nonconforming individuals. In fact, it is often not possible to determine the actual gender identities of the participants (i.e., whether cisgender or transgender), given authors' typically exclusive use of terms "male" and "female" to describe participants, which creates a potential confound. This is particularly problematic regarding SA research, as 50% of transgender persons report experiencing some form of sexual violence in their life (Stotzer, 2009). Specifically, transgender women are eight times more likely to experience rape or sexual assault compared with all other groups (e.g., transgender men, ciswomen, etc.; National Coalition of Anti-Violence Programs, 2014).

According to previous research, it has been found that transgender women are at an elevated risk of sexual violence due to cisgender men and heterosexuals perceiving them as a threat to society's expectations and norms about gender (Bockting, 2014; California Coalition Against Sexual Assault, 2010; Choudhury et al., 2009; Todahl et al., 2009). Limited research has included information regarding rape myth beliefs of and toward transgender individuals. According to Diamond-Welsh and colleagues (2018), cisgender women and transgender women held lower rape myth beliefs than cisgender men and transgender men. However, transgender and cisgender women's rate of rape myth acceptance were not statistically significant from one

another. The same was found for transgender and cisgender men. Transgender women also had significantly higher levels of victim-empathy than cisgender men and women and transgender men (Diamond-Welsch et al., 2018). Additionally, transgender women and men, as well as cisgender women, had lower rate of victim-blame compared to cisgender men, but no statistically significant difference among each other (Diamond-Welsch et al., 2018). However, it is important to note that the participants in Diamond-Welsch and colleague's (2018) study were only responding to a woman as a victim, leaving out rape myth beliefs toward men as victims.

Although previous research addresses differences between men and women in acceptance of rape myth beliefs, it is important to include transgender individuals as part of the participants due high rates of victimization of these individuals. Additionally, transgender individuals hold fluid and less essentialist views of gender and sexual identity, which could lead to a difference in acceptance of rape myth beliefs similarly demonstrated by Diamond-Welsch and colleague's study (2018; Nagoshi et al., 2012). Furthermore, gaps in acceptance of rape myth beliefs in the literature exists regarding female perpetration and non-heterosexual relationships. Most studies do not include male victimization and the acceptance of rape myth beliefs regarding these individuals. Finally, even in the rare cases when transgender identities are considered in this line of research, only binary identities (i.e., transgender men and transgender women) and no other diverse identities (e.g., gender non-binary and gender-fluid individuals) are considered.

Female Perpetration and Rape Myth Beliefs

According to Fisher and Pina (2013), 96% of female participants were victimized by male perpetrators, while 91% of male victims were victimized by female perpetrators. Although men and women sexual victimization by women perpetrators is prevalent, there is a particular lack of research regarding this occurrence. Osman (2011) describes differences in rape myth

beliefs, blame, and empathy attribution of victims based on perpetrator gender. Osman found greater empathy was attributed to victims of men (particularly women) than victims of women (particularly men). Unfortunately, most research regarding the sexual victimization of men by women was conducted in the 1980s and prior, with minimal current research being conducted. Krahé (2001) postulates the neglect of research of female perpetrators may be related to the tendency to focus on aggressive behavior as a male phenomenon. For example, individuals tend to believe male sexual aggression is due to a preoccupation with physical aggression, rather than other forms of sexual aggression (Krahé, 2003). Sexual aggression, however, can come in forms other than physical aggression, such as verbal aggression or using exploitative methods (Fisher & Pina, 2013).

According to Fisher and Pina (2013), women tend to use verbal aggression to force men into intercourse, specifically threatening to take advantage of the man while he is intoxicated. Research conducted by Muechlenhard and Cook (1988) explains that verbal aggression was reported by most men (26.8%) as the modality for forced intercourse, while 6.5% of men were forced through physical violence. Due to the understanding of the methods incorporated by women perpetrators, it is imperative to conduct studies to update the statistics of victimization and occurrence from over 40 years ago.

PURPOSE OF STUDY

The purpose of this study is to better understand how victim, perpetrator, and research participant gender affect identification of sexual assault. Additionally, the purpose is to analyze if there is a difference in the acceptance of male rape myth beliefs based on different vignette scenarios with various combinations of victim and perpetrator gender. Previous research, such as Acosta (2021), addresses participants in terms of sex, leaving out transgender, non-binary, and other gender non-conforming or gender-fluid individuals. Collectively, these latter identities and other non-cisgender identities fall under the transgender and gender diverse (TGD) umbrella. The inclusion of TGD individuals as participants will provide a more comprehensive account of the effects of gender on identification of sexual assault, as well as acceptance of male rape myth beliefs, as this has not been done in previous research. I hypothesize that there is a relationship between gender, identifying sexual assault, and differences in the acceptance of male rape myth beliefs based on victim and perpetrator gender.

Additionally, JWBs were the control variable in this study. Because this study examines the impact of the vignettes on rape myth acceptance, it would be useful to establish a baseline for these beliefs. However, pre-post designs (particularly when the pre-test is administered very soon before the post-test as would be necessary for this study) have several limitations. Specifically, such designs can increase demand characteristics (i.e., clues that may aid a participant in guessing the purpose of the study, influencing their responses) or testing effects in which the participants remember what they answered on the pre-test, leading them to give the same answers on the post-test, even if changes have occurred (Jackson, 2016). As previously mentioned, research suggests acceptance of JWBs are a predictor of acceptance of rape myth

beliefs. Thus, JWBs were controlled as a marker for participants' baseline beliefs. Based on this information the following research questions and hypotheses are proposed:

Research Question 1.

Does gender of the victim, gender of the perpetrator, and gender of the research participant relate to participants' levels of agreement that the vignette describes a sexual assault when accounting for pre-existing JWBs?

Hypothesis 1a. Accounting for pre-existing JWBs, it is predicted that there will be a three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels of agreement that the vignette describes a sexual assault.

Hypothesis 1b. It is predicted cisgender women and TGD individuals will have higher levels of agreement that the vignette describes an instance of sexual assault than cisgender men, regardless of the vignette characteristics.

Research Question 2.

Do research participants' male rape myth beliefs differ as a function of gender of the victim, gender of the perpetrator, and gender of the research participant, while accounting for participant JWBs?

Hypothesis 2. Accounting for pre-existing JWBs, it is predicted that there will be a three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels male rape myth beliefs after reading the vignettes.

Follow-Up Analyses.

As there is little previous research on these complex interactions including TGD individuals, no specific hypotheses were made based on the nature of the interactions discussed

above. However, detailed descriptions of group means of outcome variables broken down by gender characteristics of the vignettes and research participants were explored. Furthermore, specific two-way interactions and main effects were tested for each of the main outcome variables of interest. First, data was split based on participant gender, and two-way interactions between victim and perpetrator gender was examined for each participant gender group (cisgender men, cisgender women, and TGD individuals). For any significant two-way interactions detected in the previous step, the data was further split by gender of the perpetrator and main effects of victim gender was examined.

METHODS

Participants

Participants were recruited from undergraduate psychology courses at a southeastern university and from social media platforms (e.g., Reddit). Participants were provided with a link to Qualtrics where they reviewed and completed the consent form before accessing the study materials. Inclusion criteria included the participant being at least 18 years old, completing the majority (75%) of the measures, consenting to the researcher using their data, and passing manipulation check items indicated that they read and understood the vignette (see below). An a priori power analysis investigating the interaction effect of an ANCOVA with a moderate effect size of 0.25, an alpha level of .05, and power of .95 indicated a required sample size of 251. However, to account for a potentially smaller sample size and participant drop-out or not meeting inclusion criteria, the recruitment goal for this study was 300 participants.

Three-hundred and fifty participants were recruited between December 2023 and February 2024. However, a total 235 individuals were excluded from the study due to failure to meet inclusion criteria. Eighty-six individuals were removed due to failing manipulation checks, 51 completed less than 75% of the study, 41 individuals were removed due to being provided incorrect names in the manipulation checks, 28 did not complete the final permission to use data consent at the end of the survey, 8 denied permission for their data to be used in planned analyses, and 4 failed to complete the manipulation check. Additionally, 6 participants did not disclose their sex assigned at birth, 2 participants did not disclose their current gender identity, 4 provided bogus gender identities (e.g., Apache helicopter, yellow submarine, etc.), and 1 participant chose intersex as sex assigned at birth. These participants were removed due to a lack of ability to categorize them into a gender group to run the ANCOVA analyses. Furthermore, 4

participants were removed due to providing bogus ages due to an inability to determine the seriousness in which these participants completed the study. 115 participants remained following exclusion.

Of the 115 participants, 39% of participants were recruited through SONA ($n = 45$) and 61% were recruited through Reddit ($n = 70$). 48% identified as cisgender women ($n = 55$), 32% identified as cisgender men ($n = 37$), and 20% identified as transgender or gender diverse ($n = 23$; see Table 1). Regarding ethnicity (see Table 1), the majority of the participants were Caucasian/European (PR = 81.7%, $n = 94$), 4.3% were Hispanic/Latino(a) ($n = 5$), 3.5% were Black/African ($n = 4$), 2.6% were Native American/Pacific Islander ($n = 3$), while 7% of individuals replied to the open option selection, writing in their ethnicity, and 0.9% chose not to disclose their ethnicity ($n = 1$). Of the individuals who wrote in their ethnicities, 1.8% identified as Afghan ($n = 1$), 1.8% Asian ($n = 1$), 1.8% mixed Native American and White ($N = 1$), and 1.8% mixed East Asian and Caucasian ($n = 1$).

All but 2 participants (1.7%) disclosed their religious affiliation (see Table 1), the majority of which identified themselves as Atheist ($n = 31$, PR = 27%). 20% of individuals identified as Agnostic ($n = 23$), 8.7% stated they were not religious ($n = 10$), 7.8% identified as Baptist ($n = 9$), 7% Catholic ($n = 8$), 6.1% Methodist ($n = 7$), 2.6% Muslim ($n = 3$), 1.7% Presbyterian ($n = 2$), 1.7% preferred not to disclose their religious affiliation ($n = 2$), .9% identified as Buddhist ($N = 1$), and 16.5% of individuals wrote in their responses ($n = 19$). Of the individuals who wrote in their religious affiliations, 3.5% identified as Pagan ($n = 4$), 1.7% Non-denominational Christian ($n = 2$), 1.7% Christian ($n = 2$), 1.7% Jewish ($n = 2$), 0.9% Christian ($n = 1$), 0.9% Episcopalian ($n = 1$), 0.9% Lutheran ($n = 1$), 0.9% Morman ($n = 1$), 0.9% Satanist ($n = 1$), and 0.9% Unitarian Universalist ($n = 1$).

In addition to gender identity and religiosity, the highest education level of the participants was also recorded (see Table 1). The majority of the participants received a bachelor's degree (35.1%, n = 13), 24.3% received a master's degree (n = 9), 18.9% received a high school diploma or equivalent (e.g., GED; n = 7), 10.8% completed two years of college without obtaining a degree (n = 4), 5.4% completed one year of college (n = 2), 2.7% received an associate's degree (n = 1), and 2.7% received a doctorate degree (n = 1). The purpose of collecting this demographic data is to comprehensively describe the participants.

Table 1

Demographic Information

Gender Identity	Number	Percentage
Cisgender Women	55	48%
Cisgender Men	37	32%
Gender Diverse	20	23%
Total	115	100%
Ethnicity		
Caucasian/European	94	81.7%
Hispanic/Latino(a)	5	4.3%
Black/African	4	3.5%
Native American/Pacific Islander	3	2.6%
Afghan	1	1.8%
Asian	1	1.8%
Native American/White	1	1.8%
East Asian and Caucasian	1	1.8%
Religious Affiliation		
Atheist	31	27%
Agnostic	23	20%
No Affiliation	10	8.7%
Baptist	9	7.8%
Catholic	8	7%
Methodist	7	6.1%
Pagan	4	3.5%
Muslim	3	2.6%
Christain	3	2.6%
Presbyterian	2	1.7%

Preferred Not to Disclose	2	1.7%
Non-Denominational	2	1.7%
Christain		
Jewish	2	1.7%
Buddhist	1	0.9%
Episcopalian	1	0.9%
Lutheran	1	0.9%
Mormon	1	0.9%
Satanist	1	0.9%
Unitarian Universalist	1	0.9%
Education Level		
Bachelor's Degree	13	35.1%
Master's Degree	9	24.3%
High School Diploma or Equivalent	7	18.9%
2 Years of College, No Degree	4	10.8%
1 Year of College, No Degree	2	5.4%
Associate Degree	1	2.7%
Doctorate Degree	1	2.7%

Vignette Materials

Four vignettes were created to analyze participant rape myth beliefs, attitudes, and biases towards men and women perpetrators and victims of SA. The vignettes were created using four different perpetrator/victim combinations. These vignettes also assessed participant perception of an occurrence of SA (see Appendix D).

Measures

Demographic Questionnaire. Participants completed a demographic questionnaire to report their gender, race/ethnicity (e.g., Caucasian, African American, Hispanic, Asian, and Native American), age, religious affiliation (Catholic, Baptist, Protestant, etc.), and education level (high school, some college, Associate's, Bachelor's, Master's, or Doctorate degree). The demographic information collected was used to fully describe the participant pool.

Global Belief in a Just World Questionnaire (GBLJW; Lipkus, 1991). The GBLJW is a 7-item scale intended to assess global and personal just world beliefs (Lipkus, 1991). Each response is measured on a 6-point Likert scale from 1 (strongly disagree) to 6 (Strongly Agree), and the higher the score indicates a greater acceptance of JWBs. The items on the GBLJW are representative of three overall factors: interpersonal justice, socio-political justice, and cynicism/fatalism (Lipkus, 1991). After conducting a total item correlation analysis and confirmatory factor analysis, Lipkus (1991) discovered the GBLJW to have a Cronbach's α of 0.84. The items on the GBLJW assess participants' global and personal beliefs in a just world (see Appendix C). Cronbach's α for this sample is .82.

Male Rape Myth Acceptance Scale Revised (MRMAS; Hine, Murphy, & Churchyard, 2021). The MRMAS Revised is a 41-item scale measuring male rape myth in the context of six themes: Masculinity, Sexuality, Pleasure, Perpetrator, Context, and Effect (Hine et al., 2021; see Appendix E). Participants answer questions, e.g., "Male on male rape only happens to homosexual men," on a 7-point Likert scale between 1 (Strongly Disagree) and 7 (Strongly Agree; Hine et al., 2021). The items on the MRMAS Revised are representative of two overall factors: attitudes and minimization of sexual assault incidents. More specifically, most items on the MRMAS Revised are principally representative of attitudes which (a) directly blame the victim, and/or (b) suggest that only certain groups of men (particularly gay or weak men) are raped (Hine et al., 2021). These two factors can be represented as Blame and Minimization/Exoneration, and Hine and colleagues (2021) found them to be strongly positively correlated in a two-factor solution ($r = .76$). Cronbach's α for this study is .94.

Cronbach's α for the two factors are 0.96 (Blame) and 0.91 (Minimization/Exoneration) (Hine et al., 2021). Hine and colleagues (2021) found that the MRMAS Revised demonstrated

concurrent validity with proximal measures, including measures of traditional rape myths, previous measures of male rape myths (e.g., the Struckman-Johnson scale), and other attitudes (e.g., homophobia; see Appendix E).

Manipulation Check. Manipulation checks are included in experimental research to determine if a latent independent variable has been affected by experimental stimuli (Kane & Barabas, 2018). For this study, the manipulation check is added to ensure the participants fully read the vignette and identified the gender of the individuals in the vignette. As is the precedent with previous research, the manipulation check is added at the end of the study (e.g., Acosta, 2021; Aust et al., 2012) to prevent the check itself from impacting results (e.g., through increasing demand characteristics). Participants who did not correctly indicate the genders of the individuals in their assigned vignette were excluded from the study (see Appendix F).

PROCEDURE

To ensure an adequate sample size, participants were recruited from social media platforms (e.g., Reddit, Facebook, and Instagram), as well as through an undergraduate participant pool. Introductory psychology students were recruited using an online application program and social media participants were recruited through a post with a brief description of the study. Once participants from either group clicked the link, the following procedure was the same (see below). After completing the survey, the online participants clicked a second Qualtrics link that brought them to a page to enter their email, where they were placed in a drawing for a \$50 Amazon gift card. This second link was utilized to keep the participants' identity private, aiding in protecting confidentiality.

First, participants read a description of the study on Qualtrics and an informed consent form. The informed consent form included information regarding the study, the risk and benefits of participating, and the possibility of entering a drawing and winning a \$50 digital gift card upon completion of the survey. An initial draft of the informed consent form not approved by the IRB is available under Appendix A. Inclusion criteria includes the participants being at least 18 years old, completing the majority of the study (at least 75%), passing the manipulation check, and reporting their gender. After providing consent, participants filled out the demographic questionnaire. Next, participants answered questions on the GBLJW prior to any vignettes given.

After assessing JWBs among participants, they read one of four vignettes. Victim gender (man vs. woman) were randomly assigned to assess if gender affects participants identifying the vignette scenario as SA. Random assignment enhances the internal validity of this study by ensuring there are no systematic differences between the participants. Participants were then asked to rate how much they agree the vignette is a depiction of SA on a Likert scale (0

completely disagree and 100 completely agree). Next, the participants completed MRMAS Revised to address rape myths regarding male victims. The participants then answered manipulation checks to see if participants correctly identified the victims and perpetrators gender in the vignette. After completing these questionnaires, participants were presented with a debriefing form explaining this study's purpose. Additionally, contact information was provided if participants have follow-up questions regarding the study. Participants were then thanked for their participation.

DATA ANALYSES

Hypothesis 1a

Accounting for pre-existing JWBS, it is predicted that there will be a three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels of agreement that the vignette describes a sexual assault. It is predicted that the interaction effect between victim and perpetrator gender on level of sexual assault agreement will differ as a function of the participants' gender identity.

To address hypotheses 1a, a 2 (Perpetrator Gender) x2 (Victim Gender) x3 (Participant Gender) ANCOVA with the responses to the GBLJW as the covariate with participants' level of agreement that the vignette represents a sexual assault as the dependent variable was conducted. Hypothesis 1a is supported if due to a significant interaction. *Hypothesis 1b*. It is predicted that cisgender women and TGD individuals will have higher levels of agreement that the vignette describes an instance of sexual assault than cisgender men, regardless of the vignette characteristics. To address hypothesis 1b, a main effect of participant gender on level of agreement of an instance of sexual assault than cisgender men, regardless of the vignette characteristics was conducted. An additional post-hoc analysis was run to determine if there is a significant difference in responding by cisgender men.

Hypothesis 2.

Accounting for pre-existing JWBS, it is predicted that there is a three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels male rape myth beliefs after reading the vignettes.

To address hypotheses 2, participants' gender and responses to the GBLJW and MRMAS were analyzed. This analysis was conducted using a 2 (Perpetrator Gender) x2 (Victim Gender)

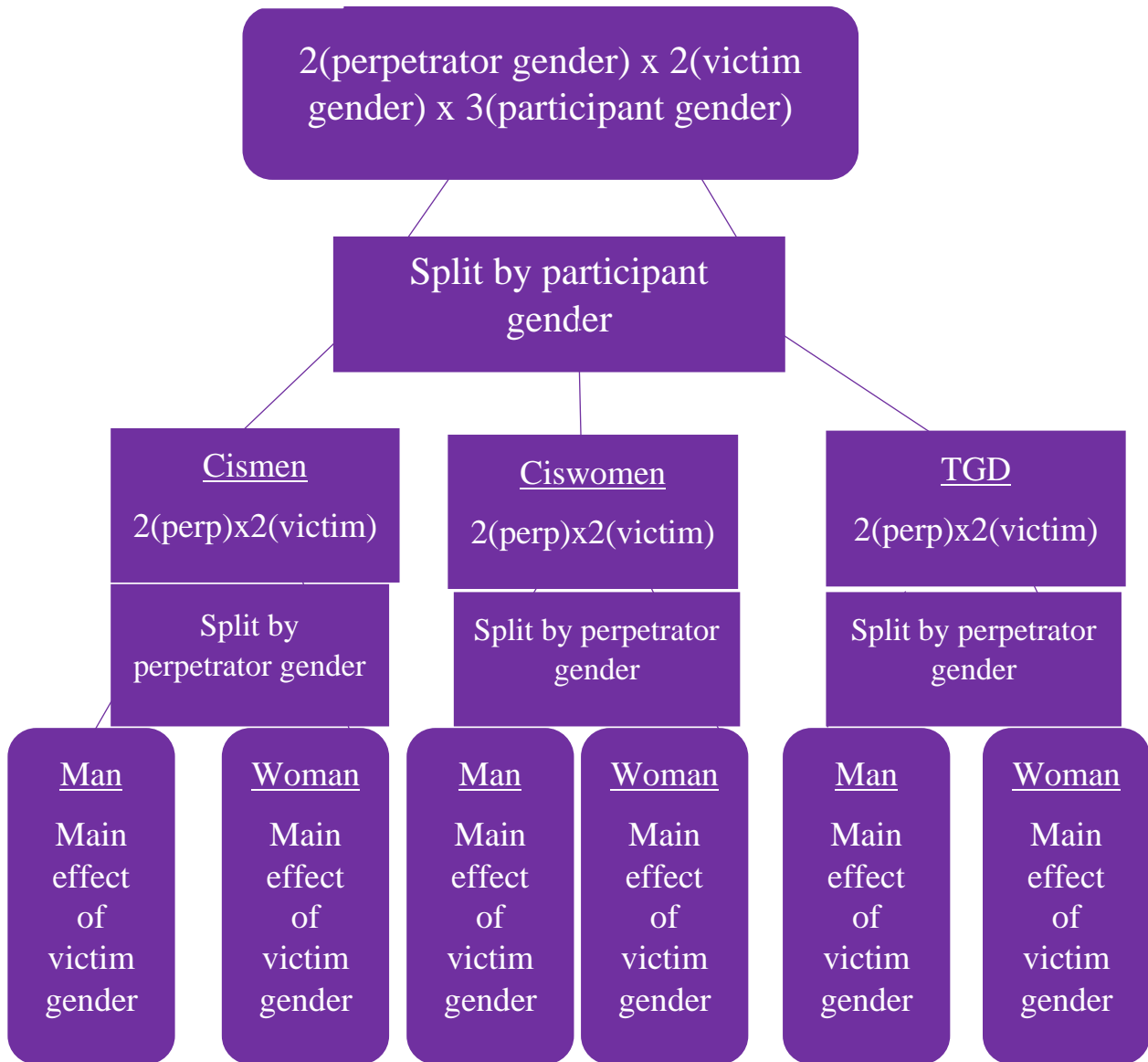
x3 (Participant Gender) ANCOVA, and the responses to the GBLJW as the covariate.

Hypothesis 2 is supported if there is a significant interaction.

Descriptive and Follow-Up Analyses

Follow-up analyses involved a series of additional ANCOVAs splitting the data based on the various independent variables. The first step was to separate the analyses based on gender of the participant and examine whether a two-way interaction was present between the genders of the victim and the perpetrator. For two-way, statistically significant interactions, further analyses were done to see their nature. Specifically, the data was split by gender of the perpetrator and examined if differences in the outcome existed based on gender of the victim in the vignettes. In each of these analyses, JWBS were controlled by including this variable as a covariate. See Figures 1 to 3 for a breakdown of exploratory analyses. Finally, means and SDs were reported for the key outcome variables across participant, perpetrator, and victim gender. Winsorizing will be used to control type I errors by converting outliers to be less than 3 standard deviations away from the mean. See Table 2 on the following page.

Table 2



Missing Data

Understanding that attrition and missing data is likely to occur, only individuals who have completed 75% of this study were included in the data analysis. Inclusion of participants that completed at least 75% of the survey aided in limiting the skew of missing data.

Additionally, for any scale in which a participant has completed some items but missed others, the average of the items completed for that participant were used to calculate the score. For

participants who failed to complete an entire scale, mean imputation was used to create a score for the missing scale.

RESULTS

Hypothesis 1a. Three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels of agreement that the vignette describes a sexual assault.

To address hypothesis 1a, a 2x2x3 ANCOVA was conducted examining the interaction of victim gender, perpetrator gender, and participant gender on level of agreement of the event described in the vignette as being perceived as sexual assault while accounting for just world beliefs. In agreement with the hypothesis, participant, victim, and perpetrator gender did have a significant 3-way interaction effect on participants' sexual assault agreement level, $F(115) = 5.28, p = .02, \eta_p^2 = .05$ (see Table 3 and Figures 1-3).

Although this analysis produced a significant outcome, it is likely this information is the result of a type I error due to one participant's agreement level being an outlier. This participant was a cisgender man provided with the man-victim, woman-perpetrator vignette and selected 0 as the agreement level. The overall agreement level for cisgender men given this vignette was $M = 90.53$, and overall agreement level across all gender identities was $M = 97.12$ (see Table 4 for means and standard deviations based on gender identity). The data point was winsorized and converted to 71.58 (three SDs below average), to avoid a type I error. However, this score continues to skew the data, resulting in a significant effect. Pairwise comparisons of participant gender found significant differences when comparing cisgender men to cisgender women with $p = .02$ (see Table 5). This result demonstrates the aforementioned significant interaction, but as stated previously, this is due to the winsorized data point. JWBs were not a significant covariate in this analysis.

Table 3

ANCOVA Results on Level of Sexual Assault Agreement

Predictor	<i>df</i>	M^2	<i>F</i>	<i>p</i>	η_p^2
(Intercept)	1	54767.58	6470.81	< .001	.99
JWB	1	24.61	2.91	.09	.03
Victim Gender	1	84.31	9.96	.002	.09
Perpetrator Gender	1	9.60	1.13	.29	.01
Participant Gender	2	31.21	3.69	.03	.07
Victim*Perpetrator Gender	1	122.59	14.84	< .001	.12
Victim*Participant Gender	2	27.84	3.30	.04	.06
Perpetrator*Participant Gender	2	33.86	4.00	.02	.07
Victim*Perpetrator*Participant Gender	1	44.68	5.28	.02	.05

Note. * The difference in significance is at the .05 level.

Table 4

Descriptive Statistics of Vignette Sexual Assault Agreement Based on Gender Identity ANCOVA

Victim Gender	Perpetrator Gender	Participant Gender	<i>M</i>	<i>SD</i>	<i>N</i>
Man	Man	Cisgender Men	100.00	.00	19
		Cisgender Women	100.00	.00	20
		Gender Diverse	100.00	.00	12
		Total	100.00	.00	51
	Woman	Cisgender Men	90.53	16.41	3
		Cisgender Women	98.64	4.52	11
		Gender Diverse	100.00	-	1
		Total	97.11	8.10	15
	Total	Cisgender Men	98.71	6.10	22
		Cisgender Women	99.52	2.30	31
		Gender Diverse	100.00	.00	13
		Total	99.34	3.93	66
Woman	Man	Cisgender Men	99.27	2.41	11
		Cisgender Women	99.50	2.24	20
		Gender Diverse	100.00	.00	10
		Total	99.56	1.98	41
	Woman	Cisgender Men	100.00	.00	4
		Cisgender Women	100.00	.00	4
		-	-	-	-
		Total	100.00	.00	8
	Total	Cisgender Men	99.47	2.07	15
		Cisgender Women	99.58	2.04	24
		Gender Diverse	100.00	.000	10
		Total	99.63	1.81	49
Total	Man	Cisgender Men	99.73	1.46	30
		Cisgender Women	99.75	1.58	40
		Gender Diverse	100.00	.00	22
		Total	99.80	1.33	92
	Woman	Cisgender Men	95.94	10.74	7
		Cisgender Women	99.00	3.87	15
		Gender Diverse	100.00	-	1
		Total	98.11	6.57	23
	Total	Cisgender Men	99.02	4.82	37
		Cisgender Women	99.55	2.41	55
		Gender Diverse	100.00	.00	23
		Total	99.47	3.20	115

Table 5

Pairwise Comparisons of Participant Gender and Level of Sexual Assault Agreement

Participant Gender	Participant Gender	<i>p</i>
Cisgender Man	Cisgender Woman	.02*
	Gender Diverse	.09
Cisgender Woman	Cisgender Men	.02*
	Gender Diverse	.86
Gender Diverse	Cisgender Men	.09
	Cisgender Women	.86

Note. * The difference in significance is at the .05 level.

Figure 1

Level of Sexual Assault Agreement based on Vignette Characteristics: Cisgender Men

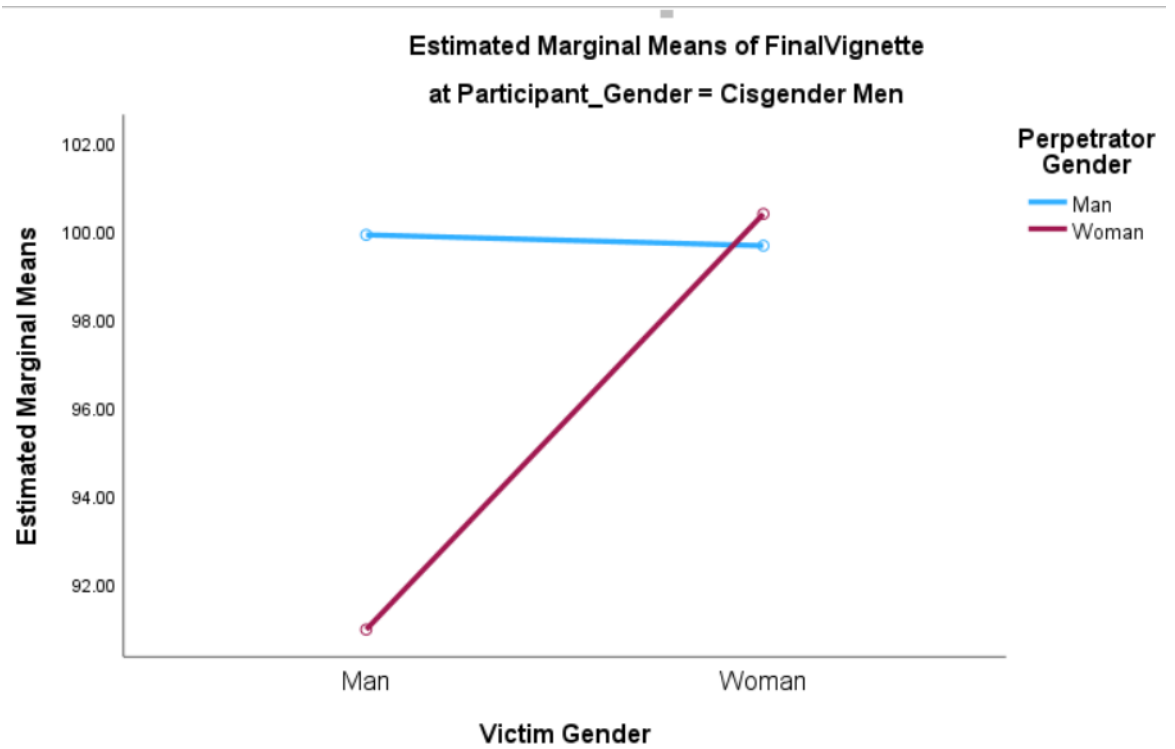


Figure 2

Level of Sexual Assault Agreement based on Vignette Characteristics: Cisgender Women

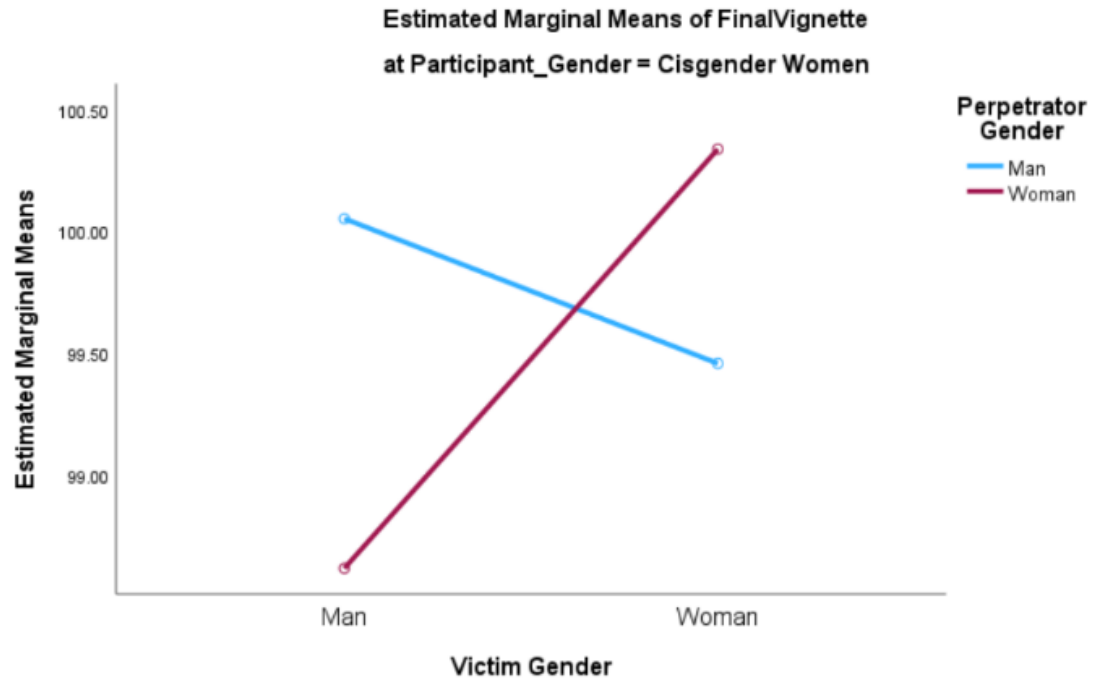
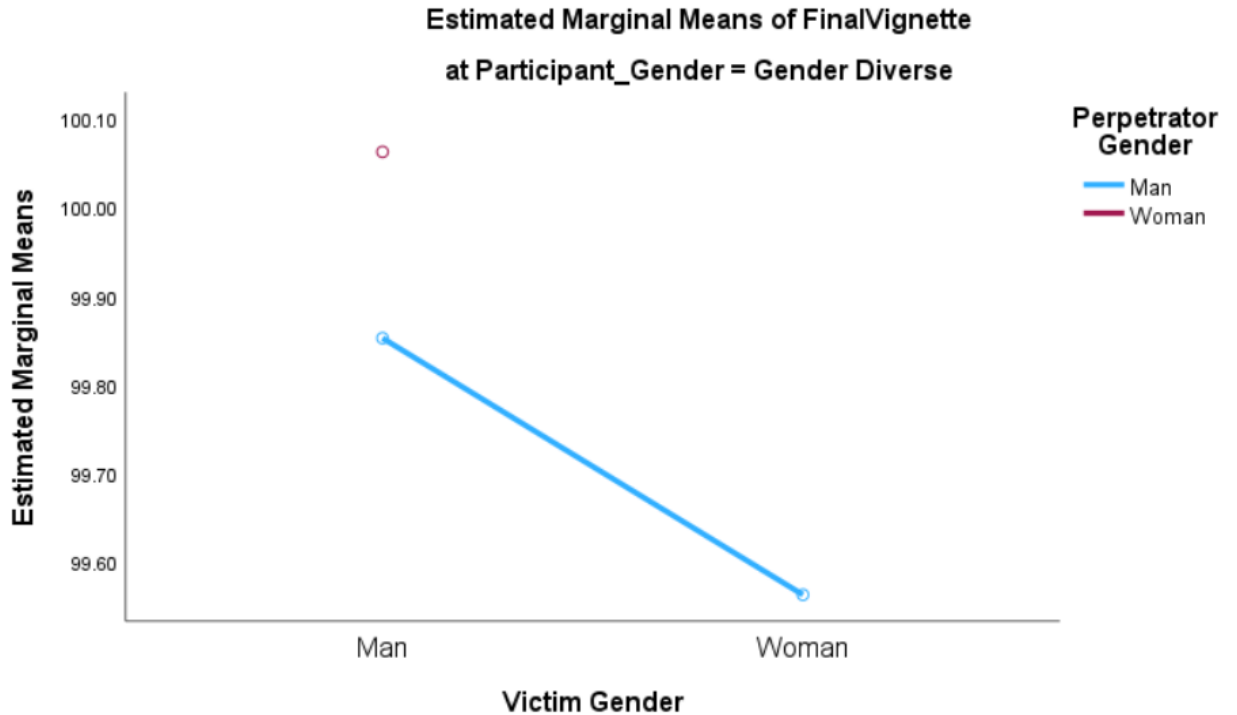


Figure 3

Level of Sexual Assault Agreement based on Vignette Characteristics: Gender Diverse



Note. The red dot demonstrates that no TGD individuals were randomly assigned to the woman-woman victim-perpetrator combination vignette.

Hypothesis 1b. Cisgender women and TGD individuals will have higher levels of agreement that the vignette describes an instance of sexual assault than cisgender men, regardless of the vignette characteristics.

In addition to a significant three-way interaction effect, it was also hypothesized that cisgender women and TGD individuals will have higher levels of agreement that the vignette describes an instance of sexual assault than cisgender men, regardless of the vignette characteristics. Contrary to hypothesis 1b, a post-hoc ANCOVA did not result in a significant difference in participant agreement in sexual assault based on gender identity, $F(115) = .27, p =$

.79, $\eta_p^2 = .004$. Descriptive analysis of overall means based on gender identity of agreement level are $M = 99.02$ ($SD = 4.82$) for cisgender men, $M = 99.55$ ($SD = 2.41$) for cisgender women, and $M = 100.00$ ($SD = .00$) for TGD individuals (see Table 6). Although TGD and cisgender women do have higher agreement levels than cisgender men, this difference is not significant.

Table 6

Descriptive Statistics of Sexual Assault Agreement Based on Gender Identity Regardless of Vignette Characteristics

Participant Gender	<i>M</i>	<i>SD</i>
Cisgender Men	99.02	4.82
Cisgender Women	99.55	2.41
Gender Diverse	100.00	.00

Hypothesis 2. Accounting for pre-existing JWBs, it is predicted that there is a three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' levels male rape myth beliefs after reading the vignettes.

Contrary to hypothesis 2, a 2x2x3 ANCOVA produced a nonsignificant three-way interaction between gender of the victim, gender of the perpetrator, and gender of the research participant on participants' level of male rape myth beliefs after reading the vignettes, $F(115) = .49$, $p = .48$, $\eta_p^2 = .01$ (see Table 7). However, a significant interaction effect was found between the victim's gender identity and perpetrator's gender identity on results of the male rape myth belief scale, $F(115) = 8.22$, $p = .01$, $\eta_p^2 = .07$ (see Table 7). Participant gender identity did not have a significant interaction effect with perpetrator gender (see Table 7) on male rape myth

belief responses, $F(115) = 2.81, p = .06, \eta_p^2 = .05$. Pairwise comparisons between cisgender women ($M = 106.14; SD = 20.81$) and TGD participants ($M = 94.00; SD = 10.83$) did not result in significant differences, $p = .41$ (see Tables 8 and 9 and Figures 4 -6). Pairwise comparisons did result in a significant difference between cisgender men ($M = 109.57; SD = 24.81$) and TGD individuals at $p = .04$ (see Table 8). JWBs were considered a significant covariate when analyzing MRMAS scores regardless of participant, victim, and perpetrator gender identity, $P < .001$ (see Table 7).

Table 7

3-Way ANCOVA Results of MRMAS Scores

Predictor	<i>df</i>	M^2	<i>F</i>	<i>p</i>	η_p^2
(Intercept)	1	27148.64	85.64	< .001*	.37
JWB	1	8046.41	25.38	< .001*	.20
Victim Gender	1	1173.02	3.70	.06	.04
Perpetrator Gender	1	362.71	1.14	.29	.01
Participant Gender	2	1003.00	3.16	.05	.06
Victim*Perpetrator Gender	1	2604.94	8.22	.01*	.07
Victim*Participant Gender	2	250.86	.80	.46	.02
Perpetrator*Participant Gender	2	892.57	2.82	.06	.05
Victim*Perpetrator*Participant Gender	1	156.26	.49	.48	.01

Note. * The difference in significance is at the .05 level.

Table 8

Pairwise Comparisons of Participant Gender and MRMAS Scores

Participant Gender	Participant Gender	Mean Difference	<i>p</i>
Cisgender Men	Cisgender Women	9.70*	.05
	Gender Diverse	15.60*	.04*
Cisgender Women	Cisgender Men	-9.70*	.05
	Gender Diverse	5.90	.41
Gender Diverse	Cisgender Men	-15.60*	.04*
	Cisgender Women	- 5.90	.41

Note. * The difference in significance is at the .05 level.

Table 9

Descriptive Statistics of MRMAS Scores Based on Participant Gender Identity

Participant Gender	<i>N</i>	<i>M</i>	<i>SD</i>
Cisgender Men	37	109.57	24.81
Cisgender Women	55	106.14	20.81
Gender Diverse	23	94.00	10.83

Figure 4

Acceptance of Male Rape Myth Beliefs Based on Vignette Characteristics: Cisgender Men

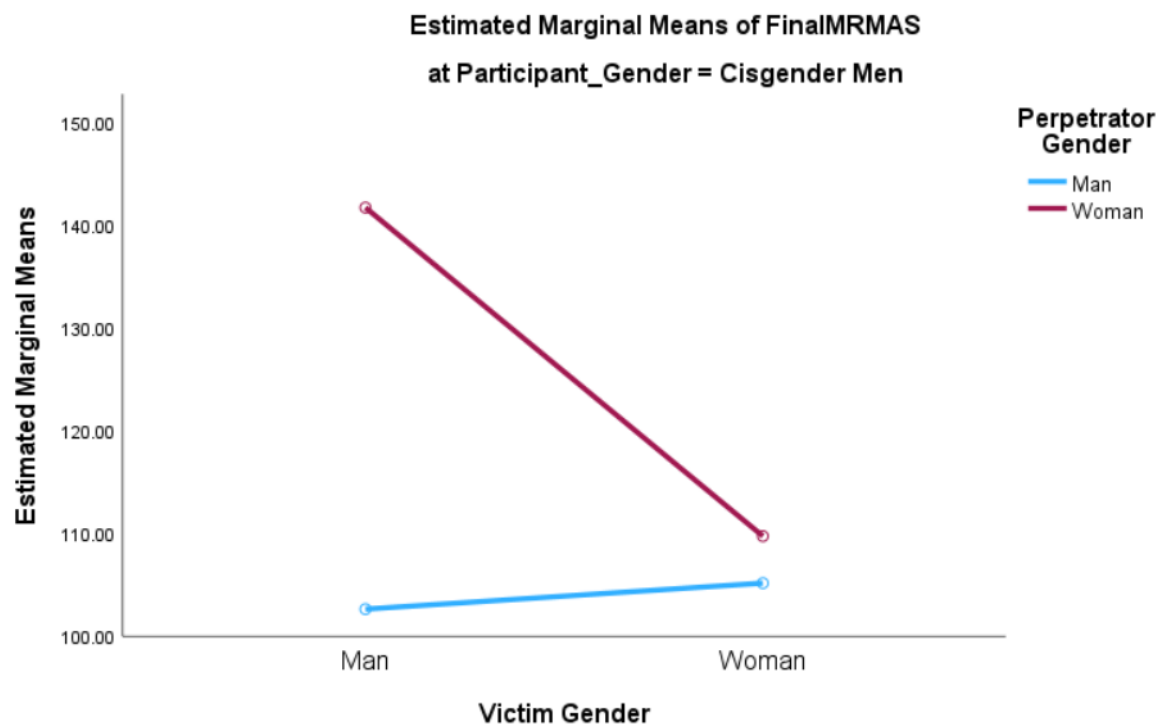


Figure 5

Acceptance of Male Rape Myth Beliefs Based on Vignette Characteristics: Cisgender Women

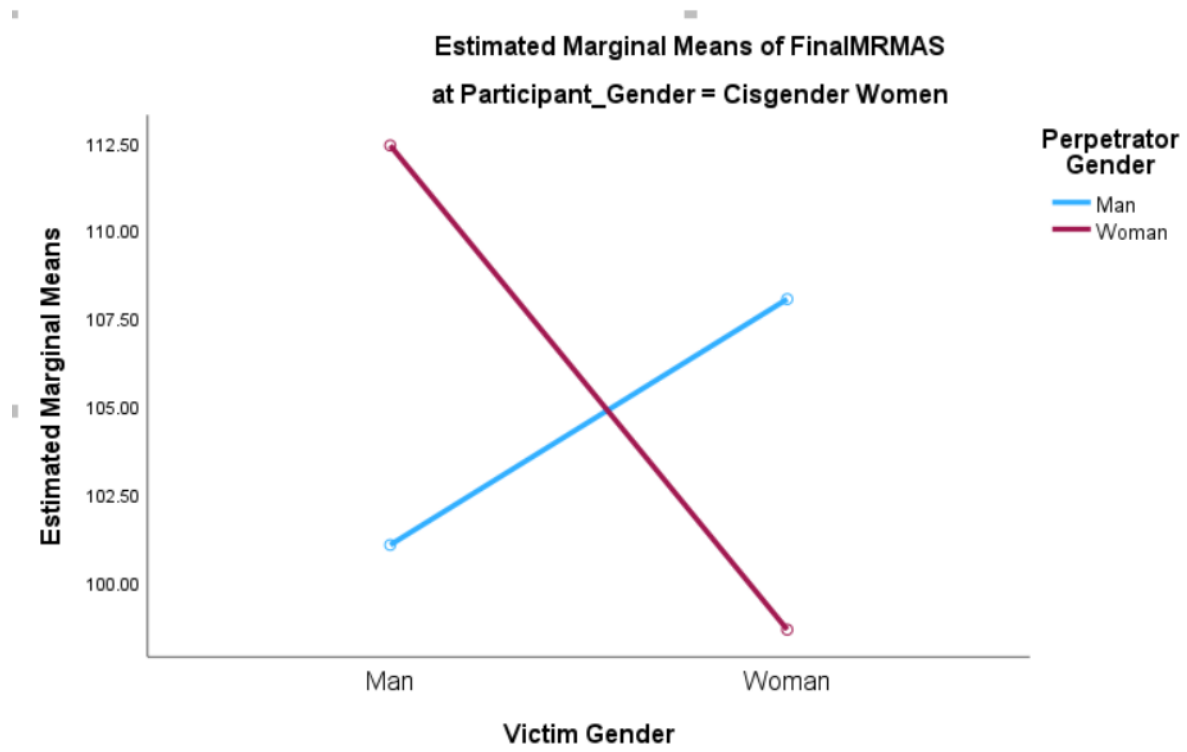
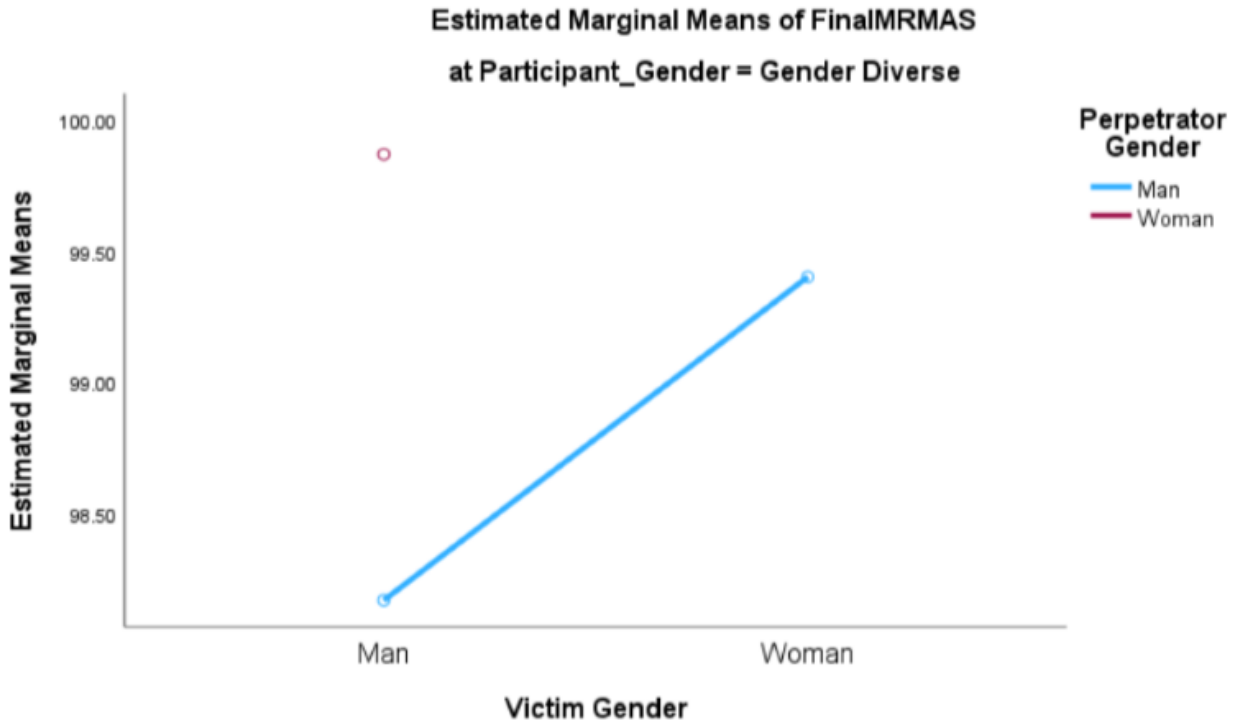


Figure 6

Acceptance of Male Rape Myth Beliefs Based on Vignette Characteristics: Gender Diverse



Note. The red dot demonstrates that no TGD individuals were randomly assigned to the woman-woman victim-perpetrator combination vignette.

Follow- Up Analyses.

Follow-up 2X2 ANCOVAs were performed across each gender group (cisgender men, cisgender woman, and TGD) analyzing main and interaction effects of perpetrator and victim gender on level of sexual assault agreement based on research participants' gender identity. A significant interaction effect between victim gender and perpetrator gender resulted in $F(115) = 6.51, p = .02, \eta_p^2 = .17$ (see Table 9). Specifically, cisgender men displayed higher levels of sexual assault agreement when the victim was a man and the perpetrator a man ($M = 100.00$; $SD = .00$) compared to when the victim was a man and the perpetrator a woman ($M = 90.5$; $SD = 16.41$). Perpetrator gender did have a significant main effect of $F = 4.71, p = .04, \eta_p^2 = .13$ on

level of sexual assault agreement for cisgender men. Victim gender also resulted in a significant main effect of $F(115) = 6.30, p = .02, \eta_p^2 = .16$. For cisgender women and TGD, victim and perpetrator gender did not have significant main or interaction effects (see Table 10 and Figures 7 – 9). JWBs were not a significant covariate for this analysis.

Table 10

Interaction and Main Effects of Perpetrator and Victim Gender on Participant Gender on Level of Sexual Assault Agreement

Participant Gender	Predictor	<i>df</i>	M^2	<i>F</i>	<i>p</i>
Cisgender Men	(Intercept)	1	16252.93	890.64	< .001*
	JWB	1	12.90	.71	.41
	Victim Gender	1	114.90	6.30	.02*
	Perpetrator Gender	1	85.90	4.71	.04*
	Victim*Perpetrator Gender	1	118.81	6.51	.02*
Cisgender Women	(Intercept)	1	28641.76	5073	< .001*
	JWB	1	17.25	3.10	.09
	Victim Gender	1	3.12	.55	.46
	Perpetrator Gender	1	.54	.10	.76
	Victim*Perpetrator Gender	1	12.61	2.23	.14

Note. * The difference in significance is at the .05 level.

^a Gender Diverse participants were not included in this table due to none of them being randomly assigned the woman – woman victim – perpetrator vignette combination.

Figure 7

Main and Interaction Effects of Perpetrator and Victim Gender on Level of Sexual Assault

Agreement: Cisgender Men

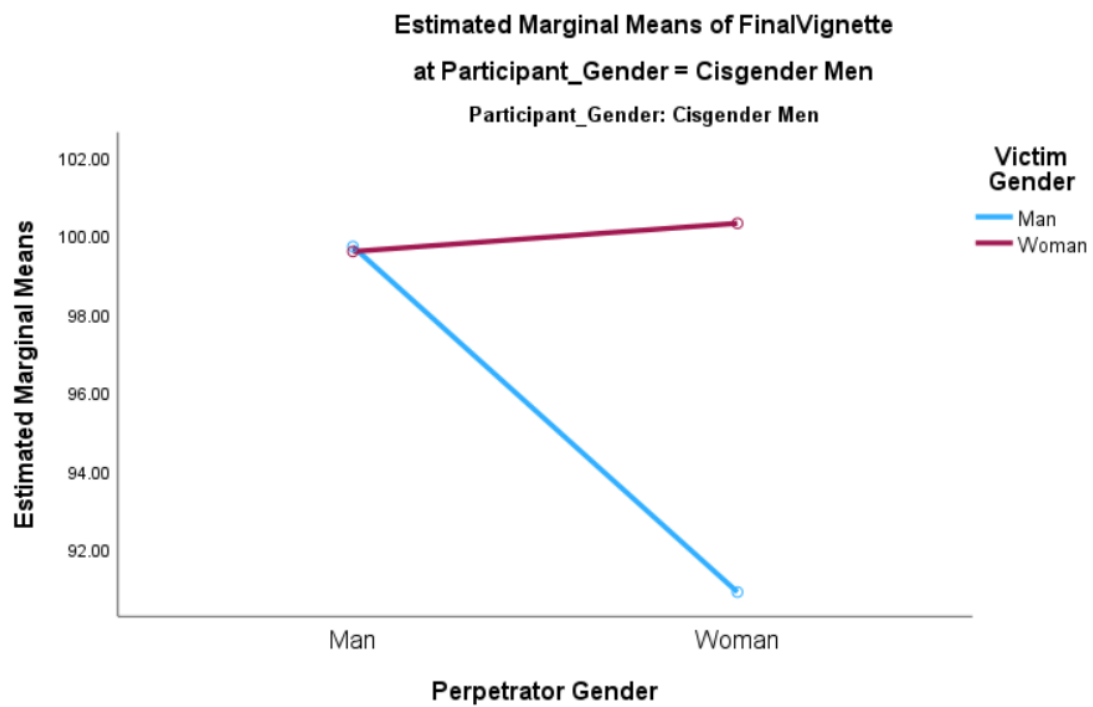


Figure 8

Main and Interaction Effects of Perpetrator and Victim Gender on Level of Sexual Assault

Agreement: Cisgender Women

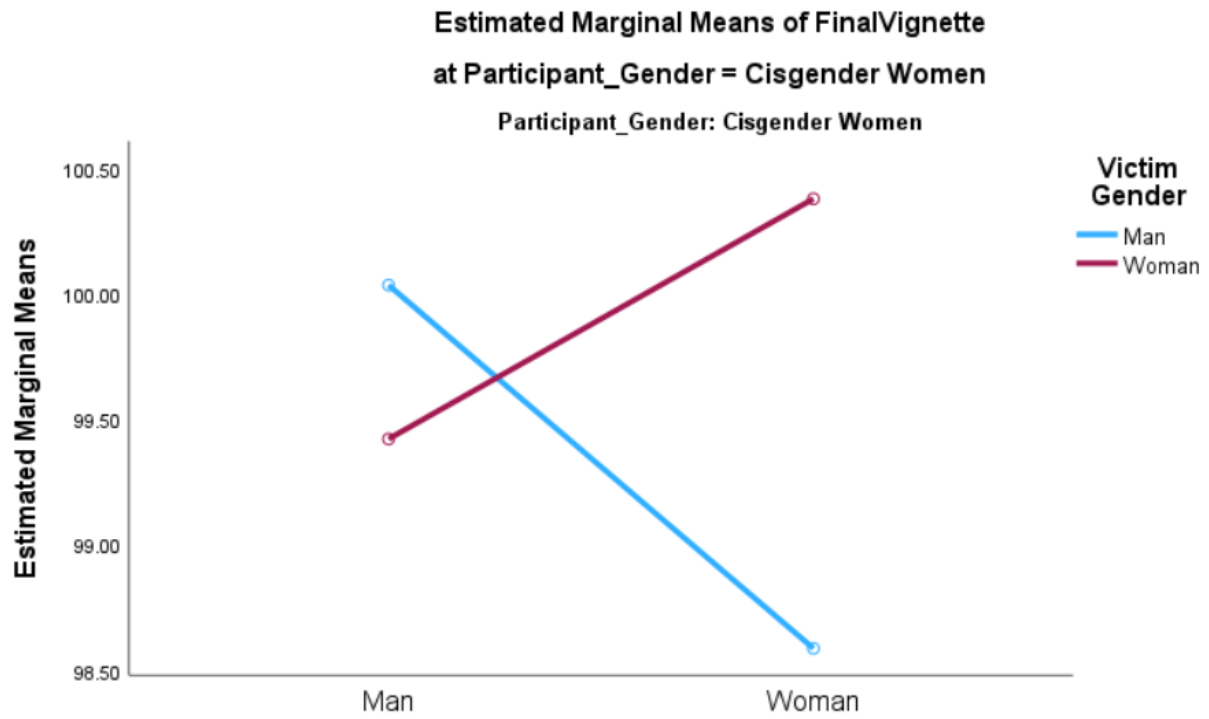
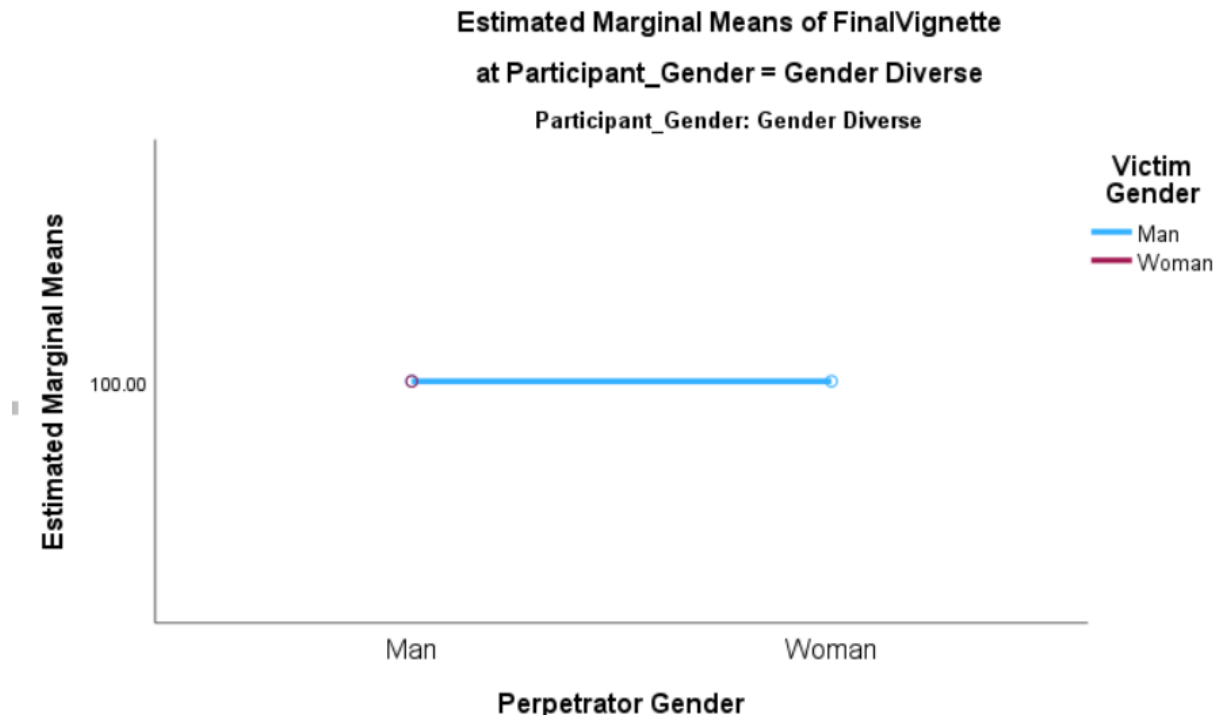


Figure 9

Main and Interaction Effects of Perpetrator and Victim Gender on Level of Sexual Assault

Agreement: Gender Diverse



Note. The red dot demonstrates that no TGD individuals were randomly assigned to the woman-woman victim-perpetrator combination vignette.

DISCUSSION

Much of the previous research has indicated the impact of gender on acceptance of rape myth beliefs from a dichotomous lens, solely examining female victims and male perpetrators. The paucity of research analyzing the impact of gender identity from a gender diverse approach, as well as the dearth of the examination of rape myth acceptance towards men, served as the foundation for this study. The present study attempted to form a more comprehensive understanding of the impact of victim, perpetrator, and research participant gender identification on sexual assault perceptions, as well as analyze if there is a difference in the acceptance of male rape myth beliefs based on different vignette scenarios with various combinations of victim and perpetrator gender. The results of the current study align with previous research demonstrating that cisgender men hold higher male rape myth beliefs than cisgender women and TGD individuals, as well as gender identity having a significant effect on level of sexual assault agreement. These findings have important implications for treatment and development of empirically based rape prevention programs.

Hypothesis 1a suggested a significant three-way interaction between gender identity and level of sexual assault agreement while accounting for JWBs. This hypothesis was supported, and results demonstrated that gender identity does have an interaction effect of level of sexual assault agreement. However, it is important to note that there was an outlier in the data that was winsorized to avoid error. Although the datapoint was no longer considered an outlier, it is possible it affected the analysis. Additionally, it was found that cisgender men were significantly less likely to agree the vignette described an instance of sexual assault based on vignette characteristics. Specifically, cisgender men were less likely to agree the vignette described sexual assault when the victim was a man and the perpetrator a woman. Results also

demonstrated participant and victim gender individually had significant main effects on level of sexual assault agreement, particularly when the participant was a cisgender man and the victim a man. However, perpetrator gender did not. JWBs were not a significant covariate for this analysis.

Furthermore, exploratory analyses analyzing the main and interaction effects of victim and perpetrator gender on participant gender were performed, resulting in significant effects for cisgender men only. Particularly, a significant interaction resulted when the participant was a cisgender man, the perpetrator was a woman, and the victim a man. This result demonstrates that cisgender men have lower levels of agreement that the vignette was an example of sexual assault when the perpetrator was a woman, and the victim was a man. Previous research suggests the differences in level of sexual assault agreement and acceptance of rape myth beliefs may be due to men endorsing male stereotypes (Acosta, 2021). Additionally, it is suggested women display more empathy to victims who identify as women due to having the shared experience of womanhood and a higher risk of being assaulted compared to men (Diamond-Welch, 2018).

Hypothesis 1b suggested a significant difference in level of sexual assault agreement between cisgender women and TGD participants compared to cisgender men despite vignette characteristics. Contrary to the hypothesis, analyses resulted in a non-significant difference between all gender identities. Cisgender men, cisgender women, and TGD individuals all agreed the vignette described an instance of sexual assault regardless of the victim or perpetrator's gender. An explanation for the lack of significant differences in agreement may be due to the lack of ambiguity in the vignette, resulting in the participants perceiving the vignette as a "real rape" situation. Previous research supports this theory, demonstrating that men and women do not significantly differ in agreement in "real rape" scenarios (Hockett et al., 2021). A secondary

explanation for the lack of significant differences across participant gender identity may be confirmation bias due to the IRB requiring a statement that the participants will read a scenario involving sexual assault in the informed consent. Due to the participants being told the scenario includes sexual assault, they may have chosen higher agreement levels to confirm the description of the study. Additionally, knowing the study involves opinions on sexual assault, participants' responses may have been influenced by the social-desirability bias, resulting in higher levels of sexual assault agreement compared to their true agreement level.

Hypothesis 2 predicted a significant three-way interaction between participant gender, victim gender, and perpetrator gender on participants' level of male rape myth agreement following the vignette. Contrary to hypothesis 2, the significant three-way interaction was not supported. However, a significant interaction effect was found between victim gender and perpetrator gender on male rape myth acceptance. Specifically, cisgender men demonstrated higher levels of male rape myth acceptance compared to cisgender women and TGD individuals. This result aligns with previous research describing this phenomenon. Specifically, cisgender men endorsed lower levels of male rape myth acceptance when given the woman x man victim perpetrator vignette condition and the highest level given the man x man combination. These differences in scores may be due to men endorsing higher levels of male stereotypes (e.g., men are weak if they cannot fight off their attacker; Davies et al., 2012). Additionally, it is possible cisgender men endorsed higher levels of male rape myth acceptance following exposure to a man victim due to high just world beliefs and benevolent sexism (Chapleau et al., 2008).

Benevolent sexism is associated with victim blaming to protect one's just world beliefs (Viki et al., 2004). Cisgender men may believe men are supposed to be invincible, and if a man is raped, he must have displayed unmanly weakness or homosexual urges to permit the assault (if

perpetrated by a man) or simply wanted to engage in sexual activities (if perpetrated by a woman) (Chapleau et al., 2008). This theory is supported by the current study as JWBs were a significant covariate for male rape myth beliefs. Additionally, cisgender men are more accepting of a gender dichotomous lens compared to a gender fluid one, as well as endorsing more homophobic attitudes than cisgender women or TGD individuals (Worthen & Wallace, 2021). Due to this, men are more likely to perceive “real rape” as occurring only between a cisgender man perpetrator and a cisgender woman victim.

Contradictory to preceding research, cisgender women and TGD individuals did not differ in male rape myth acceptance. The lack of significant difference between cisgender women and TGD individuals may be due to the increased likelihood of sexual victimization of women and TGD individuals, as well as these groups having an overall higher sense of empathy toward sexual assault victims (Diamond-Welch et al., 2018; Acosta, 2021).

Limitations and Future Research

Although this study found significant results, it is not without its limitations. As mentioned previously, IRB requested a statement that participants would read an example of sexual assault in the informed consent. Due to this, participant’s responses may have been influenced by confirmation and social desirability biases. Additionally, the use of convenience sampling is a limiting factor due to the challenges in finding TGD participants.

A goal of this study was to increase representation of TGD individuals and this group’s level of sexual assault agreement and acceptance of male rape myth beliefs based on different victim-perpetrator gender identities. However, no TGD participants were randomly assigned to the woman x woman victim-perpetrator scenario. Due to this it cannot be determined if there are significant differences between cisgender men, cisgender women, and TGD individuals in level

of sexual assault agreement and acceptance of male rape myth beliefs when given a woman x woman victim-perpetrator combination, limiting this study's external validity. A second limiting factor affecting the study's external validity is the possible influence of self-selection bias. Although the survey for this study was posted on various social media platforms, it is likely only individuals interested in this topic participated. Therefore, it is difficult to determine the true generalizability of these findings.

Despite recording ethnicity to comprehensively describe the participant pool, ethnicity was not factored into any of the main or exploratory analyses of this research. Research regarding differences in rape myths and beliefs among victims of different ethnicities is inconsistent. Although several studies suggest that non-White victims of SA are more likely to receive blame bystanders for their attack, multiple studies indicate that ethnicity does not influence blame attribution (Acosta, 2021). According to Aosved and Long (2006), men were more likely to hold racist and homophobic beliefs and attribute higher rape myth beliefs towards individuals compared to women. Due to the ambiguity and lack of reach regarding the influence of ethnicity on rape myth beliefs, future research is vital to fully comprehend the scope of the negative consequences of rape myths and beliefs regarding members of underserved communities, if any.

Just as ethnicity was recorded and not factored into hypotheses or analyses, neither was education level nor religiosity. According to Kassing and colleagues (2005), individuals with lower education levels were more likely to endorse greater acceptance of rape myths. For example, in a study examining rape myth acceptance among police officers, those with only a high school diploma or general education development (GED) scored significantly higher on rape myth acceptance than their counterparts with an associate's, bachelor, and master's degree

(Page 2008; Powers et al., 2015). Additionally, Page (2008) found no significant difference among officers with higher-level education degrees (associate's, bachelor's, or master's).

Similar to Page (2008), Prina and Schatz-Stein (2019) found evidence suggesting individuals with higher levels of education are less accepting of rape myths. An additional study conducted in Lahore, Pakistan found that students with more educated parents and higher incomes were less likely to hold rape myth beliefs, possibly due to higher education opportunities (Nadeem & Sahed, 2017). In addition to SES and education, high religiosity is positively associated with the acceptance of rape myth beliefs toward women (Barnett et al., 2016). The acceptance of rape myth beliefs is theorized to be connected to the perception of unhealthy views of women depicted in scriptural literalism across different religions, with Roman Catholics and Protestant followers endorsing the most rape myth beliefs compared to other religions (Witkiewitz et al., 2011; Franiuk & Shain, 2011; Navarro & Tewksbury, 2018). However, no known research has analyzed the effects of religiosity in transgender or gender diverse populations, as well as the rate of rape myth acceptance concerning male victims. Due to the limited research conducted examining SES, educational level, and religiosity with acceptance of rape myth beliefs (particularly male rape myth beliefs), it is important to examine this in future studies to gain a more comprehensive understanding of beliefs. A comprehensive understanding will allow the development of effective interventions for these individuals to reduce stigma toward sexual assault survivors in the hopes the victims would gain increased community support and experience less fear of bystander blame when coming forward with their stories.

The effects of the participant's sexuality were also not analyzed, creating a limitation to this study. Diamond-Welch and colleagues found a significant difference in participants'

responses to a vignette describing sexual assault based on the participants' sexuality (2018). Heterosexual respondents accepted rape myths at a lower rate than non-heterosexual participants (Diamond-Welch et al., 2018). Men, as well as homosexual men and women, have higher rates of victim blaming and were more likely to excuse perpetrator behavior compared to heterosexual women (Diamond-Welch et al., 2021). However, gay men were found to have the highest levels of victim blaming, empathy for the perpetrator, the highest level of rape myth acceptance, and were more likely to excuse the perpetrator's behavior compared to heterosexual men and women as well as lesbians (Diamond-Welch et al., 2021). However, these findings were found using a vignette with a woman victim and man perpetrator, failing to analyze the effects sexual orientation has when examining men victims and women perpetrators. Additionally, this study did not include transgender and gender diverse individuals, making the research non-generalizable to these populations and neglecting to address rape myth beliefs toward victims who are men. For this reason, future research including TGD individuals as participants and rape myth beliefs toward men while factoring sexual orientation of the participant is needed.

Furthermore, the history of sexual victimization was not accounted for in this study. The emotional distress resulting from experiencing sexual assault may enhance an individual's acceptance or nonacceptance of rape myth beliefs (Baugher et al., 2010). Only three studies have analyzed the effect of past sexual assault victimization on rape myth beliefs compared to those without a victimization history (Carmody & Washington, 2001; Mason et al., 2004; Baugher et al., 2010). Sexual trauma history has been found to have a moderating effect on rates of rape myth belief acceptance, likely due to increased empathy toward rape survivors held by previous rape survivors (Baugher et al., 2010). If this remains true in future research, developing rape prevention programs aimed at increasing empathy toward victims may be a potential strategy in

reducing rape myth acceptance (Baugher et al., 2010). However, it is important to note that this study did not include transgender and gender diverse individuals and only focused on women victimization and men perpetration. Future research involving the participants' sexual assault history, TGD individuals, and different victim-perpetrator gender combinations would be beneficial in forming a comprehensive understanding of rape myth belief acceptance across gender.

Additionally, although this study did include TGD individuals regarding rape myth belief acceptance based and level of sexual assault agreement, TGD individuals were not included in the victim-perpetrator gender identities. Therefore, rape myth belief acceptance toward TGD individuals could not be analyzed, nor could level of sexual assault agreement based on a TGD victim or perpetrator. Future research would benefit from including TGD victims and perpetrators to analyze and understand biases toward the LGBTQIA+ community.

Conclusions and Clinical Implications

Education programs would serve as a possible modality in effectively reducing rape myth acceptance. Many rape prevention programs are based on the prevention theory that consists of four motives of rape: (a) deviant sexual behavior, (b) rape myth acceptance, (c) date location, and (d) poor self-defense strategies (Finkelhor 1987). Additionally, male-targeted sexual assault programs exist with a central focus of sexual assault reduction (Wright et al., 2018). However, rape prevention and sexual assault intervention programs have minimal empirical evidence that support their efficacy. A meta-analysis comparing the effectiveness of different forms of sexual assault prevention programs found a small but stable effect of programs improving sexual assault attitudes, but no evidence that male-directed sexual assault programs reduce rates of perpetration.

Fortunately, there is a myriad of evidence demonstrating the positive effect of sexual assault intervention programs explicitly centered on rape myth education in the reduction of rape myth beliefs (Hudspith et al., 2021; Reddy, 2000). Specifically, programs addressing rape myth beliefs had a more positive effect on attitudes toward rape than empathy-focused programs, particularly when presented via video (Anderson & Whiston, 2005; Hudspith et al., 2021). Additionally, Braugher et al., 2010) found attitudes traditional attitudes towards women lead to an increased acceptance of rape myth beliefs. Given that JWBs were a significant covariate when analyzing male rape myth beliefs in the current study, education programs addressing rape myth beliefs towards men and women, as well as JWBs, may be effective in reducing rape myth belief acceptance, particularly in cisgender men as they tend to hold higher beliefs. Rape myth dispelling programs using cognitive techniques to change attitudes towards men and women may benefit from this research. Additional benefiterers include organizations aimed at providing resources to men who are victims of sexual assault due to research and aid being approximately 20 years behind those for women.

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Appendix A

INFORMED CONSENT FORM

Description of Study: The current research study examines factors that influence the acceptance of rape myth beliefs. Participation in this study involves responding to questions regarding rape, as well as reading and responding to questions regarding characters in a rape myth vignette. The current study should take approximately 20-30 minutes to complete.

Participation: Participation can be withdrawn at any time, for any reason, without penalty. Additionally, participants can choose to skip survey questions that bring discomfort, as well as choose not to complete the survey for any reason.

Confidentiality: All participants and data collected will be confidential. The online collected data will be de-identified to ensure anonymity. Data will only be accessible to the researcher and faculty advisor. The data obtained in this study will be kept for future use. Research data may be shared with other investigators without asking again for your consent, however, all data will remain anonymous.

Possible Benefits: When participation is complete, you will be entered into a drawing to receive a \$50 Amazon gift card. Other possible benefits of participating may include learning about how research is conducted, particularly regarding this field of study (e.g., factors influencing perceived sexual assault).

Possible Risks: The current research is designed to reduce possible negative experiences due to participating. However, due to the nature of the study, when reading questions or the rape vignette, you may become upset, anxious, or experience distress. If this occurs, you may cease participation.

Additionally, you can contact the Mental Health Crisis Hotline at 1-800-849-6127, or the National Sexual Assault Hotline at 1-800-656-4673.

Researcher Contact Information: The current research study is being conducted by Amanda Peirano. The faculty supervisor is Dr. David Solomon, Department of Psychology, Western Carolina University. If you have any questions or concerns regarding your participation in this study, please contact the researcher through Dr. David Solomon at dsolomon@email.wcu.edu. You may also obtain information about the study results by contacting Dr. Solomon.

Psychology Institutional Review Board Contact Information: If you have questions regarding your rights as a research participant, you may contact the Psychology Institutional Review Board of Western Carolina University at IRB@wcu.edu or at 828-227-7212.

Personal Copy of Informed Consent Form: You may save or print a copy of this form since it will be unavailable once you begin this study.

*Additional changes may be made to the proposed Informed Consent based on the suggestions and requirements of the Internal Review Board.

Are you currently 18 years old or older?

Yes

No

By clicking below, you give consent to participate in this research study.

Yes, I give my consent.

No, I do not give my consent.

Appendix B

Demographic Questionnaire

Please answer the following demographic questions.

1. What is your sex assigned at birth?

- Male
- Female
- Intersex
- Prefer not to say

2. What is your current gender identity?

- Man
- Woman
- Trans/Transgender
- Gender Queer
- Gender non-conforming
- Gender fluid
- Gender expansive
- Non-binary
- Open Option:
- Prefer not to say

3. What is your race/ethnicity?

- White/Caucasian
- Asian

- Native Hawaiian/Pacific Islander
- Native American
- Black/African American
- Hispanic/Latino(a)
- Open Option _____
- Prefer not to say.

3. What is your age in years? _____

4. What is your religious affiliation?

- Agnostic
- Atheist
- Baptist
- Buddhist
- Catholic
- Evangelical
- Methodist
- Muslim
- Presbyterian
- None
- Open Option
- Prefer not to say.

5. Select the highest level of education you have completed

- Did not complete High School
- High School diploma (or GED)

- 1 year of college (but no degree)
- 2 years of college (but no degree)
- Associate degree
- 3 years of college (but no degree)
- 4 years of college (but no degree)
- Bachelor's degree
- Master's degree
- Doctorate
- Prefer not to say.

Appendix C

Global Belief in a Just World Questionnaire

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

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I feel that people often get what they are entitled to have.					
2. I feel that a person's efforts are noticed and rewarded.					
3. I feel that people earn the rewards and punishments they get.					
4. I feel that people who meet with misfortune have brought it onto themselves.					
5. I feel that people get what they deserve.					
6. I feel that rewards and punishments are fairly given.					

7. the world is a fair place.					
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Appendix D

VIGNETTES

Jessie is a [man/woman] attending a house party with [his/her] friend. Jessie is dancing with [his/her] friends when a [man/woman] named Avery introduces [himself/herself] to [him/her]. Avery offered to get Jessie a drink. After Avery returned with Jessie's drink, [he/she] asks if Jessie would like to the bedroom to talk in private and get to know each other better. Jessie accepts, and once they enter the bedroom Avery locks the door. Avery and Jessie sit on the bed and begin to make small talk about each other's day. Shortly after, Avery begins scooting closer to Jessie and touching [his/her] inner thigh. Jessie tells Avery to stop and moves [his/her] hand away. Avery ignores Jessie's rejection and begins fondling [him/her]. Jessie tries to push Avery off [him/her], but Avery pins [him/her] down. Avery removes Jessie's pants and forces [him/herself] on Jessie. Avery does not stop until [he/she] finished the sex act.

1. On a scale from 0 to 100 (0- completely disagree and 100- completely agree), how much do you agree the vignette described an occurrence of sexual assault?
 - 0- Completely Disagree
 - 25 – Somewhat Disagree
 - 50 – Neither Agree nor Disagree
 - 75 – Somewhat Agree
 - 100- Completely Agree

Appendix E

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

MALE RAPE MYTH ACCEPTANCE SCALE (MRMAS)

	<i>strongly disagree</i>	<i>disagree</i>	<i>Neither agree nor disagree</i>	<i>agree</i>	<i>strongly agree</i>
1. If a man is raped it does not mean he is weak.					
2. A man who is raped must have been behaving in a way that made him appear homosexual.					
3. I would be less inclined to believe a man who said he had been raped if he got an erection during the incident.					
4. Heterosexual men are more traumatized by their experience of being raped than women.					
5. Male rape is very rare, if it occurs at all.					
6. Heterosexual men who commit rape against other men do so to assert their dominance.					
7. I find it difficult to believe one man could sexually overpower another man.					
8. Male on male rape only happens to homosexual men.					
9. A male victim who ejaculates during the incident has not been raped.					
10. Male victims of rape are not traumatized by the incident.					
11. Almost all male rape occurs in institutions such as prisons or the military.					
12. A homosexual man who rapes other men does so out of sexual desire.					

13. Most men would be able to fight off a male sexual attacker.					
14. Rape is an accepted risk of a homosexual lifestyle.					
15. During a sexual attack it is reasonable for the victim's erection to be viewed as consent.					
16. Without physical trauma, I would be less inclined to believe a man had been raped.					
17. The idea of a man being raped is somewhat amusing.					
18. Heterosexual men who commit rape do so to act upon secret homosexual desires.					
19. In 'real' cases of male rape, there will be some evidence of physical resistance.					
20. Heterosexual men 'cry rape' to hide their homosexual activities.					
21. Even if force is used to initiate sex, the victim's erection can be interpreted as pleasure.					
22. I would expect heterosexual victims of rape to be more traumatized than homosexual victims.					
23. Coercive sexual practices between men (e.g., forced oral sex) form a legitimate part of group initiations such as those used in fraternities or sporting societies.					
24. A man would not rape another man if he was sexually fulfilled elsewhere.					
25. A man who fails to escape a sexual attack is					

partially responsible for his rape.					
26. Just because a man is raped does not mean he is homosexual.					
27. If a man does not have sex while he is in college, people—including women—will think he is gay.					
28. If a man is being sexually attacked, his ejaculation is proof he found the experience somewhat pleasurable.					
29. Men should feel ashamed as a result of being raped.					
30. Most cases of male rape include the use of a weapon.					
31. It is of utmost importance that men be knowledgeable and experienced in sexual matters.					
32. Male rape is only perpetrated by homosexual men.					
33. For a man, not resisting a sexual attack from another man, is a reasonable response.					
34. A man who is raped must be homosexual even if he claims to be heterosexual.					
35. A homosexual man who has been raped probably enjoyed the experience to some extent.					
36. Homosexual men are more traumatized by their experience of being raped than women.					
37. A man is more responsible for his own rape if he frequents a known homosexual area or establishment.					

38. Only men who are big and strong are able to rape other men.					
39. I would find it difficult to consider a man a 'real man' if he said he had been raped.					
40. If a man has already had consensual sex with other men, I would not believe his claims of rape.					
41. A man who is raped is not as traumatized by the experience as a woman.					
42. If a man is drunk or taking drugs, he is accepting rape as a possible risk.					
43. Being independent, adventurous, and tough are still characteristics that define true masculinity.					
44. Men who commit rape are naturally more aggressive in their day to day lives.					
45. It is acceptable for a 'real man' to show fear during a sexual attack by another man.					
46. A man who claims to have been raped probably just changed his mind after initially consenting to sex.					
47. A male victim's reaction to rape is more likely to be practical than emotional (e.g., obtaining a HIV test rather than seeking support.)					
48. A male victim of rape must have behaved in a way that invited the assault.					
49. Raping another man is not a sign of mental illness.					
50. A heterosexual man who had been raped would still be desirable to women.					
51. Male rape is a homosexual act.					

52. If a man has been raped, he should be able to cope on his own.					
53. I would find it difficult to believe a man had been raped if he had previously consented to sex with the same man.					
54. Regardless of how they choose to identify themselves, I believe that men who rape other men are homosexual.					
55. 'Real men' cannot be raped.					
56. I would expect a man to be 'matter of fact' and in control of his emotions when reporting a rape.					
57. A man who has been raped did not set sexual limits understood by the perpetrator.					
58. Male victims of rape have very little emotional trauma to cope with.					

Appendix F

Manipulation Check

1. What gender was Jessie in the vignette, the person who was given the drink was the recipient of sexual activity? (Man/woman).

2. What gender was Avery in the vignette, the person who gave the drink was the initiator of sexual activity? (Man/woman).

3. Please select the degree to which you agree with the following statement: I put forth my best effort in answering these questions.

Strongly disagree

Disagree

Neutral

Agree

Strongly agree