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Katerina Marie Oberdieck

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**EXAMINING THE IMPACT OF THE HAVEN TRAINING ON PERCEPTIONS
OF RAPE**

A Masters Thesis

Presented to

The Graduate College of
Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree
Master of Science, Psychology

By

Katerina M. Oberdieck

May 2017

EXAMINING THE IMPACT OF THE HAVEN TRAINING ON PERCEPTIONS OF RAPE

Psychology

Missouri State University, May 2017

Master of Science

Katerina M. Oberdieck

ABSTRACT

The purpose of this research was to study the effect of a university-mandated sexual assault prevention program—*Haven: Understanding Sexual Assault*—on college students' judgments of three different rape vignettes (Stranger Rape, Acquaintance Rape, Acquaintance Rape with Intoxication), and overall rape myth acceptance. A sample of 490 participants who either had or had not completed *Haven* training participated in the study, and each participant was also randomly assigned to read either a brief summary of the *Haven* training or a control paragraph before judging the vignettes. Gender was also treated as an independent variable due to robust evidence of gender differences in rape myth acceptance and victim-blaming. Participants assigned more blame to victims of acquaintance rape, less blame to the perpetrators, and were less likely to recommend those victims report the incident than the victim of a stranger rape. The account of a stranger rape was the vignette most likely to be labeled rape by participants. Men assigned more blame to victims than women when the vignette contained fewer stereotypical features of rape. Men also endorsed more rape myths overall. Neither the actual *Haven* training nor the brief *Haven* summary were significant predictors of any judgments. Future research efforts should focus on obtaining a more representative no-*Haven* control, as confounding variables make it difficult to interpret the null effects.

KEYWORDS: sexual assault, rape myth acceptance, victim blame, perpetrator blame, haven, gender, reporting rates

This abstract is approved at to form and content

David Zimmerman, Ph.D.
Chairperson, Advisory Committee
Missouri State University

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May 2017

Approved:

David Zimmerman, PhD

Christie Cathey, PhD

Paul Deal, PhD

Julie Masterson, PhD: Dean, Graduate College

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INTRODUCTION

Research has overwhelmingly shown that the majority of rapes are not reported to law enforcement (Allen, 2007; Fisher, Daigle, Cullen, & Turner, 2003). This trend has remained fairly stable over the past two-and-a-half decades, with only about 35% of rapes between the periods of 1992 to 2000 and 2006 to 2010 reported. These figures are comparatively low when contrasted with reporting rates of other violent felonies, such as aggravated assault and robbery (Bureau of Justice Statistics, 2012; Rennison, 2002). What factors might impact the likelihood that a woman would report rape? What factors impact non-victim perceivers' determinations of whether a rape has occurred? Below I will discuss several factors relevant to perceptions of rape and the likelihood that a victim would report rape.

Acceptance of Rape Myths

Rape myths are prevalent incorrect beliefs about rape that often trivialize the experience of rape survivors. In an oft-cited definition, Lonsway and Fitzgerald (1994) wrote, "Rape myths are attitudes and beliefs that are generally false but widely and persistently held, and serve to deny and justify male sexual aggression against women" (p. 134). The effects of rape myth acceptance are far-reaching, affecting both the perceptions of authorities involved in sexual assault cases and the survivors themselves. Previous research has indicated that women with higher rape myth acceptance are less likely to report the incident to law enforcement (Heath, Lynch, Fritch, & Wong, 2013). Another study found that campus law enforcement officers who held higher acceptance

of rape myths were also more likely to blame victims for being raped, particularly when the victim had been drinking. The officers were also less likely to view cooperation from the victim as being important to clearing a particular case, and were more likely to view the victim's criminal history and blameworthiness, as well as if they were acquainted with the perpetrator, as more important. Thus, there were significant correlations between what factors campus law enforcement officers viewed as important and their acceptance of rape myths (Smith, Wilkes, & Bouffard, 2016).

Labeling of Sexual Violence

The label an individual chooses to describe rape reflects their attitude about the victim, as well as a victim's attitudes towards her own experience. While sexual assault and rape are often used interchangeably in the common vernacular, researchers have demonstrated that the chosen label is related to victim-blaming related attitudes. For example, in one study participants were presented with a vignette and asked to assign it one of four labels – sexual aggression, sexual assault, rape, or none of these options (Sasson & Paul, 2014). Those who assigned the act in the vignette the label of “rape” showed less acceptance of rape myths and lower levels of empathy with the perpetrator than those who labeled the act “sexual assault” or “sexual aggression.” Rape myth acceptance was shown to be the strongest predictor of labeling, and participants with higher rape myth acceptance were less likely to label the vignette as a case of rape. Additionally, those who labeled the act as rape assigned lower levels of responsibility to the victim (Sasson & Paul, 2014).

The effect of labeling is bidirectional, in that the type of language used to describe sexual assault also plays a role in people's attitudes about sexual encounters. For example, in a study that interchanged the terms "rape" and "unwanted sex" in identical scenarios, participants in the "rape" condition approved of harsher punishment for the perpetrator. While the context of the assault remained the same, merely changing the descriptor of the act led to a significant change in attitude towards the perpetrator (Wilkinson, 2009).

Stereotypical Rape Scenarios

Female rape victims are also less likely to report the incident to law enforcement when the incident contains fewer stereotypical aspects of rape (Pino & Meier, 1999). Stereotypical factors of rape include assumptions about the victim, perpetrator, and situation. In a "real" rape case, the victim is a woman of upright moral character and the perpetrator is a crazed, monstrous man lurking at night—physical force and violence are used to subdue the victim rather than the use of intoxicants or manipulation (Du Mont, Miller, & Myhr, 2003).

Hammond and Calhoun (2007) found that when an attack involves more stereotypical aspects of rape, women who were asked about their personal history of sexual violence were more likely to label sexual intercourse they did not consent to as rape. Women who were raped were more likely to identify the experience as rape when it was committed by a stranger, if the assault involved physical violence towards the victim, and if the victim resisted the perpetrator. Only around a third of incidents of rape involving alcohol rather than force were acknowledged as rape, and only 13% of rapes

involving non-vaginal penetration were regarded as rape. In contrast to situations in which substances were used to coerce sexual activity, participants were most likely to acknowledge rape when the perpetrator used physical force, with 76% of participants regarding this as rape. In a similar study examining victims' perceptions of rape, women who were raped while they were under the influence of alcohol were less likely to label their experience as rape than were women who were sober and whose attackers utilized physical force (Kahn, Jackson, Kully, Badger, & Halvorsen, 2003). Likewise, women who knew their rapist were also less likely to label their experience as rape than were women who were raped by strangers. In an experimental study, Grubb and Harrower (2009) examined assignment of blame in vignettes that included seduction rape (a date rape that included references to the victim and perpetrator drinking alcohol), date rape (a rape that occurs between individuals in a casual romantic relationship), and stranger rape. They found that participants assigned the most blame to a victim of a seduction rape, then to a victim of a date rape, and the least amount of blame to the victim of a stranger rape—which was also the most stereotypical scenario. In sum, it appears that a previous relationship with the attacker and victim intoxication reduce perceptions that rape has occurred, whereas stranger rape is more likely to be labeled “rape.”

Gender of the Perceiver

Men consistently show more acceptance of rape myths than do women. For example, Szymanski, Devlin, Chrisler and Vyse (1993) found that men assigned significantly more responsibility towards female victims of rape than did women and were also more likely to believe that female rape victims engaged in behaviors that

encouraged rape. Additionally, women were more likely to identify and empathize with the female rape victim and believe the psychological ramifications of her experiences would be more severe—women also approved of longer prison sentences and held a significantly more negative view of the rapist. Another study showed higher levels of rape myth acceptance among men compared to women, as well as more blame attributed to the victim when rape myth acceptance was elevated (Kopper, 1996).

Gender differences in perceptions of rape may be moderated by the level of intimacy the perpetrator and victim shared prior to the incident. Freetly and Kane (1995) found that the gender divide grew larger as the victim and perpetrator were described as more closely acquainted before the rape; women were more likely to report that the rapist's behavior was "wholly unacceptable" than men in every instance. Additionally, as compared to a scenario in which they described the victim and perpetrator as acquaintances, the effect size for gender differences grew sequentially larger as the victim and perpetrator were described as working together, being in a dating relationship, being married, and being engaged or cohabitating. Ben-David and Schneider (2005) also found gender differences were moderated by levels of perpetrator and victim intimacy—in that study, men were also more likely to minimize the impact of rape and recommend lighter sentences for the rapist when women were more intimately acquainted with their attacker.

Explanations for these differences are varied, and there are almost certainly multiple factors. Perhaps one of the reasons for this gender disparity is a difference in understanding consent. Men typically explain date rape as a violation of a clear "no", while women are more likely to explain consent as a behavior that indicates a clear "yes."

In other words, men may be more likely to view consent as “no means no” while women may be more likely to view consent as “yes means yes” (Verberg, Wood, Desmarais, & Senn, 2000). Another explanation researchers have explored is that men are less able to identify with female victims. Because much of the research on rape attitudes has been focused on female victims, it may be that the gender differences are due to a lack of perceived similarity with an opposite-sex victim rather than less of an ability to empathize with rape victims (Grubb & Harrower, 2009). Regardless of the reason for these differences in attitudes, it is clear that the gender of the perceiver is an important variable in research examining perceptions of rape.

Rape on College Campuses

Universities across the United States have fallen under increased scrutiny in recent years due to high rates of sexual assaults on campus. This has been compounded by systematic underreporting at many universities. In one study, official reporting of sexual assault on university campuses increased by an average of 44% when a campus was under increased scrutiny by regulatory bodies—rates for aggravated assault, burglary, and robbery did not rise when the educational institution was placed under higher scrutiny (Yung, 2015). In another study of around 5,000 women, 5% of women enrolled in college had been raped in the twelve month span prior to the survey, compared to 1% of women who were not in college (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007). Additionally, the American College Health Association (2011) has recognized “sexual violence as a serious campus and public health issue” (p. 1). Therefore, assessing the impact of education programs on key attitudes, such as

blameworthiness, is a critical step in the process towards more efficacious preventative measures.

***Haven* Training**

In fall 2014 the “*Haven* – Understanding Sexual Assault” education program (i.e. *Haven* training) became mandatory for all Missouri State University freshman and transfer students to take before they were allowed to enroll in classes for their second semester. Dean Jungers explained that this action was in response to the reauthorization of the Violence Against Women Act, as well as a letter from the Department for Education for Civil Rights, which was sent to universities across the country to clarify their duty to provide information about sexual assault and harassment under Title IX (Welhoff, 2014). A year later, reporting of sexual assaults committed on the Missouri State campus increased significantly. There was some speculation as to whether the actual rate of sexual assault had increased or more individuals were willing to report incidents of sexual assault to the campus authorities (Buhrman, 2015).

The *Haven* training addresses elements of sexual violence that are more common in traditional rape narratives, such as the use of force or rape perpetrated by someone unknown to the victim. In addition to addressing more stereotypical rape cases, the *Haven* sexual assault educational program explores aspects of rape that stray from stereotypical representations. These include incidents where the victim was drinking, where the victim knew the perpetrator, where physical force was not used, and where the victim had previously consented to sexual activity with the perpetrator. The *Haven* training contains information about what constitutes informed consent, how to intervene

when a sexual assault is taking place, and what constitutes sexual assault, as well as many other facets of stalking, abuse, and sexual assault. Given the emphasis in the *Haven* sexual assault education program on the details of informed consent and recognizing sexual assault in situations where stereotypical factors are not present, I believe that students who have taken the training will be less likely to hold victim-blaming attitudes and will be better at identifying instances of sexual assault.

Present Research

Students were randomly assigned to an abridged *Haven*-training manipulation or control; participants received this information before being asked to judge three different vignettes. Next, participants read the vignettes – a case of stranger rape, a case of acquaintance rape where the victim was not drinking alcohol prior to the incident, and a case of acquaintance rape where the victim was intoxicated at the time of the rape. After each vignette, participants completed a measure of blameworthiness for both the victim and the perpetrator and indicated whether the victim should report the incident to law enforcement. Because the recognition of rape as well as label assigned to the act are related to rape myth acceptance and victim blame, I asked participants to select a label to describe each vignette. The three available labels were “rape”, “sexual assault”, and “consensual sex.” Participants chose which label to assign after the presentation of each vignette. Afterwards, participants completed the Updated Illinois Rape Myth Scale and provided demographic information. Finally, participants indicated if they had completed the actual *Haven* training.

METHOD

Design

I utilized a 3 (Vignette: Stranger Rape, Acquaintance Rape, Acquaintance Rape with Intoxication) x 2 (*Haven* training: Completed, Not Completed) x 2 (*Haven* Summary: Yes, No) x 2 (Gender: Male, Female) mixed factorial design. Vignette was a within-subjects factor, and all other factors were between-subjects. I randomly assigned participants to the *Haven* summary conditions, and (as mentioned before) I counter-balanced the vignettes. Because I could not randomly assign people to gender or the actual *Haven* training conditions, I planned to obtain a large sample size in order to obviate concerns about a disproportionality female and/or *Haven*-complete sample.

Participants

My original sample consisted of 576 participants, all of whom were students from Missouri State University. After excluding individuals who failed the manipulation check (in Materials section) and individuals with missing data there were 490 total participants. The majority of these students were enrolled in an introductory psychology course, and the remaining students were enrolled in an upper-level psychology course. Data collection occurred during the Fall 2016 and Spring 2017 semesters. There were more female ($n = 347$) than male ($n = 143$) participants. The average age was 20.8. The two largest racial demographics represented were White students ($n = 449$) and Black students ($n = 18$). A large number of participants ($n = 404$) indicated that they had completed the university-mandated *Haven* training in comparison to those who had not (n

= 86). The number of students assigned to the Haven manipulation ($n = 254$) was comparable to the amount of students who read the control paragraph ($n = 236$). Participants represented a wide range of political beliefs, from extremely conservative ($n = 14$), conservative ($n = 97$), slightly conservative ($n = 80$), moderate ($n = 152$), slightly liberal ($n = 60$), liberal ($n = 77$), and extremely liberal ($n = 10$). In accordance with university policy, this experiment was approved by the Protection of Human Subjects Institutional Review Board prior to data collection (IRB – FY2016 – 290; September 14, 2016).

Materials

Summation of *Haven* Training. I randomly assigned participants to read either a paragraph containing a short summary of the *Haven* training's approach to rape and consent, or a paragraph about general difficulties students may have when adjusting to college life that served as a control. The brief summation of the *Haven* training states that informed, enthusiastic consent is necessary to obtain before engaging in a sexual encounter and that intoxication can impair an individual's ability to give this consent. It further states that a sexual encounter without this consent is sexual violence (see AA). The control paragraph addresses possible academic and social stressors new college students may face (see AB).

Vignettes. The three vignettes described three different scenarios involving a rape perpetrated by a male college student against a female college student. The first described a man watching a woman walk down a street alone after dark and then dragging her into an alley and covering her mouth while she resists. The second described two students

talking and flirting at a party. The students leave their group of friends to be alone and begin engaging in consensual kissing, at which point the male student continues to engage sexually without the female student's consent. The third scenario proceeds along the same lines as the second, except for the description of the female student becoming visibly intoxicated after having several alcoholic drinks. All three of the scenarios end with the male perpetrator engaging in vaginal intercourse with the female victim, and I counterbalanced the presentation of the vignettes to control for possible order effects (see AC).

Vignette Responses. After reading each vignette, participants completed a blameworthiness measure for the victim and perpetrator. Participants assigned a percentage of responsibility for the sexual encounter to both the victim and perpetrator, with 0% representing no responsibility and 100% representing full responsibility. This allowed participants to choose no responsible parties, assign responsibility to both parties, or assign responsibility to only one party (see AC).

In order to measure recognition of rape, I presented participants with three labels and asked them to choose between them in order to best describe the sexual encounter in the vignette they have just read. They were able to choose between rape, sexual assault, and consensual sex (see AC).

Finally, participants gave recommendations regarding whether or not the female college student in each vignette should report the incident to law enforcement. This was measured by utilizing a seven-point Likert-type scale, with 1 indicating "She should definitely report it to law enforcement" and 7 indicating "She should definitely not report it to law enforcement" (see AC).

Rape myth acceptance. In order to assess levels of rape myth acceptance, I asked participants to complete the updated Illinois Rape Myth Acceptance Scale (IRMA), which was published in 2011 (see AD). This scale was developed to measure the rape myth acceptance of college students. Of particular note, the sample was composed of college students from the American Midwest, and was similar to the intended sample and population of our study. One of the goals of the revision of the IRMA was to make the wording less obvious, so that students who had participated in sexual assault prevention programs would be less able to determine the “correct” response, essentially decreasing demand characteristics. The revised IRMA contains changes in the wording of the items based on suggestions from campus staff who interacted with sexual assault survivors and peer educators. The new language used in the items was meant to reflect shifts in the way college students speak about rape. Additionally, the updated IRMA focuses more on victim-blaming attitudes than the original IRMA. The updated measure contains nineteen questions across the following five subscales; “It Wasn’t Really Rape”, “He Didn’t Mean To”, “He Didn’t Mean To (intoxication items)”, “She Lied”, and “She Asked For It.” The revised IRMA is considered appropriate for both male and female respondents as well as students who have and have not completed a sexual assault prevention program. These small changes retain the integrity of the original IRMA while providing a more appropriate scale for college students. The previous versions of the IRMA are considered to have particularly good reliability compared to other scales of rape myth acceptance. This is true of the overall scale reliabilities of both the original 42 item IRMA ($\alpha = .93$), and the 20 item IRMA Short-Form ($\alpha = .87$), upon which the updated IRMA is heavily based (Payne, Lonsway, & Fitzgerald, 1999) (McMahon & Farmer, 2011). The inclusion

of the IRMA provided information regarding the effect of the independent variables on rape myth acceptance.

Demographics and *Haven* Training Completion Check. Additionally, I asked participants to provide information about demographic variables. The demographics section included questions about gender, race, age, religion, political leanings, socioeconomic status, education level, marital and parental status, and occupation. Collecting a range of demographic information allowed me to assess whether any other variables besides gender were correlated with the dependent variables (see AE).

In order to assess whether or not the participants completed the *Haven* training, I provided them with a screenshot of what the webpage looks like after the completion of the course. This was done in order to eliminate any confusion about what participants were being asked to indicate (see AE).

Procedure

I recruited participants by creating a digital presentation of the materials in Qualtrics that students could choose to complete in order to earn research credit for their introductory psychology class. Additionally, I recruited students from upper-level psychology courses, as I discovered it was difficult to find students who had not completed the *Haven* training. All participants completed an informed consent statement before participating in the study, after which they were randomly assigned to read either a short summary of how *Haven* addresses issues related to sexual assault or the control paragraph. Participants then read each rape vignette and assigned a percentage of responsibility to the victim, a percentage of responsibility to the perpetrator, a label to the

encounter, and a recommendation regarding whether the victim should report the incident to law enforcement. The participants viewed each question individually before moving on to the next, and vignette order was counterbalanced (randomly) between subjects.

After responding to the vignettes, participants completed the Updated Illinois Rape Myth Acceptance Scale, provided demographic information, and completed a manipulation check in which they indicated whether they had read the *Haven* summary or the control paragraph at the beginning of the experiment. The last piece of demographic information participants provided was whether or not they had completed the *Haven* training. The participants were able to view a screenshot of the completed *Haven* training webpage in order to limit confusion regarding what they were being asked to indicate. Finally, I provided participants with information regarding resources available through the Missouri State University Counseling Center as well as the contact information of the Title IX Coordinator.

Hypotheses

Hypothesis 1 – because of previous exposure to the information contained in the *Haven* training, I predicted that students who had taken the *Haven* training would be more likely to recognize the incidents described in the vignettes as rape. Additionally, I expected that *Haven*-exposed participants would place a lower level of blame on the victim, a higher level of blame on the perpetrator, and would be more likely to recommend reporting the incident to law enforcement.

Hypothesis 2 – because the third vignette includes both alcohol use by the victim and a previous relationship with the perpetrator, participants would be less likely to label

it as rape, less likely to blame the perpetrator, more likely to blame the victim, and less likely to recommend reporting the incident than in the vignette that involves an acquaintance rape in which the victim has not been drinking alcohol. The stranger rape vignette would be most likely to be recognized as rape, and participants would be the least likely to blame the victim (etc.) in this vignette.

Hypothesis 3 – because of gender differences in attitudes shown in previous research, I anticipated that female participants would place a lower level of blame on the victim, a higher level of blame on the perpetrator, would be more likely to label the incident rape, and would be more likely to recommend reporting the incident to law enforcement. I did not anticipate an interaction between gender and the *Haven* training as there is not currently available research regarding the effect of the *Haven* training on reducing the discrepancy of rape myth acceptance/victim blaming across gender. However, I predicted a vignette x gender interaction, whereby the gender gap would grow larger from the stranger rape vignette to the acquaintance rape vignette to the intoxication rape vignette.

Hypothesis 4 – I anticipated that participants who received a summarized version of the *Haven* training before judging the vignettes would place a lower level of blame on the victim, a higher level of blame on the perpetrator, would more likely to label the incident as rape, and more likely to recommend reporting the incident to law enforcement.

RESULTS

Analytic Strategy

Although I had originally planned to analyze the data using mixed factorial ANOVAs, the assumption of homogeneity was violated for all dependent variables (victim blame, perpetrator blame, and whether the victim should report the incident to law enforcement), as assessed by multiple significant Levene's tests. Neither logarithmically transforming the data nor using the square root of the data points resulted in homogenous variances. Additionally, I was unable to find a robust version of a mixed factorial ANOVA and therefore could not utilize bootstrapping to analyze the data—bootstrapping allows for data analyses that do not require assumptions to be met (see Field, Miles, & Field, 2012). Therefore, because it is important to meet the assumption of homogeneity of variances in order to produce accurate results, I decided to run separate regression analyses for each vignette (Stranger Rape, Acquaintance Rape, and Acquaintance Rape with Intoxication) rather than greatly inflate the risk of Type I error through the use of an inappropriate test. Consequently, for each primary dependent variable, there are three regression analyses (one for the responses to each vignette), and a separate one-way ANOVA assessing the impact of the vignette variable.

Because 1) assumptions were being violated due to linearity concerns, and 2) I wanted to avoid further splitting the sample between groups, as is frequently done when linearity is a concern. I utilized spline and kernel regression when appropriate to analyze the models for which the residuals were curvilinear. Kernel weighting involves selecting bandwidths for each predictor and applying them to the data. This allows for the

bandwidths to be wider or narrower depending on the variability of the data, which in turns allows for a smoother line, rather than one that appears jagged due to high variability (Opsomer & Breidt, 2016). The inclusion of a basis-spline (commonly referred to as a b-spline) in the analysis of a continuous predictor allows for curves to be integrated in the regression line, with the placement of the curve defined by knots that delineate where the segments of the line begin and end (Michigan Technological University, n.d.). Therefore, the regression curve is not limited to a straight line as is most commonly the case. I utilized quantile knot placement, so that each segment between the knots contained the same number of observations. I selected the degree of the splines, number of knots within in the spline, and bandwidths for predictors using the crs package in R which provides these using data-driven estimations (Nie & Racine, 2012). All of the figures associated with the non-parametric tests display the partial regression plot of the specific predictor

Victim Blame

I ran each of the victim blame regressions using gender, *Haven* training, and the *Haven* manipulation as predictors—I only included main effects because adding interactions did not increase the fit of the models. Within the analyses, I also included rape myth acceptance as a predictor, as measured by the Updated Illinois Rape Myth Acceptance Scale, as well as whether the participant was enrolled in an upper-level or introductory psychology course. I identified and removed outliers for each regression using Mahalanobis distance, Cook’s distance, and identifying high leverage points—I removed data points that were considered outliers in at least two of the three analyses.

Victim Blame by Vignette. The analysis of victim blame in response to the stranger vignette required the use of a non-parametric method due to linearity concerns. After applying kernel weighting to the discrete predictors and a basis-spline to rape myth acceptance, the model was significant, $R^2 = .16$, adjusted $R^2 = .16$, $F(20,459) = 4.44$, $p = <.001$. The model presented the best fit with no interaction terms. Due to the non-parametric nature of the test, p-values for individual predictors are unobtainable. However, group means and confidence intervals at the 95% level are displayed in F1, F2, F3, and F4. These show little variation for the discrete predictors, but a curvilinear relationship between victim blame and rape myth acceptance. Victim blame appears somewhat higher when rape myth acceptance is high, with discrepancies at both ends of the scale (see F5). Rape myth acceptance is represented by lower values on the scale, in accordance with the scoring of the IRMA.

I ran a multiple linear regression analysis on participant's assigned blame to the victim in the acquaintance vignette. I transformed the data using the square root of the continuous variables for the purpose of increasing model fit and homogeneity of variance. Overall, the model was significant, $R^2 = .28$, adjusted $R^2 = .27$, $F(5,479) = 36.38$, $p = <.001$. Rape myth acceptance was a highly statistically significant predictor of blame. Participant gender was also a statistically significant predictor ($p = .05$), although the effect size was very small ($d = .04$). Neither the *Haven* training nor the *Haven* manipulation were significant predictors. See T1 for full results and descriptive statistics.

I ran a similar analysis on the responses to the victim blame measure for the intoxication vignette. I also utilized a square root transformation on the dependent variable in order to increase model fit and homogeneity of variance. The overall model

was significant, $R^2 = .34$, adj. $R^2 = .33$, $F(5, 478) = 49.59$, $p = < .001$. Rape myth acceptance was again a highly statistically significant predictor of blame. Participant gender was also a significant predictor. Neither the *Haven* training nor the *Haven* manipulation were statistically significant. The full results of the analysis can be found in T2.

Effect of Vignette on Victim Blame. A repeated-measures ANOVA showed a significant effect for vignette on victim blame, $F(2, 962) = 110.04$, Huynh-Feldt $p = < .001$. Because Mauchly's Test for Sphericity was significant I used the corrected p -value. Participants assigned less blame to the victim in response to the stranger vignette ($M = 2.56$, $SD = 9.34$) than they did in response to either the acquaintance vignette ($M = 15.61$, $SD = 25.31$) or the intoxication vignette ($M = 14.74$, $SD = 22.27$). A post-hoc dependent-measures t -test with a bonferroni correction resulted in a significant difference between the stranger vignette and the acquaintance vignette, $d_{avg} = .75$, $p = < .001$, and the stranger vignette and the intoxication vignette, $d_{avg} = .77$, $p = < .001$, but no statistically significant difference between the acquaintance and intoxication vignettes, $d_{avg} = .03$, $p = .98$.

Perpetrator Blame

Due to similar aforementioned concerns regarding linearity, I also utilized a basis spline and kernel weighting for the entire set of perpetrator blame analyses. Unlike the victim blame analyses, for which I only applied the basis spline and kernel weighting to the analysis of the stranger vignette, the data for all of the perpetrator blame vignettes benefited from the addition of the basis spline and kernel weighting. Therefore, I used the

same method for each analysis, with the basis spline applied to the continuous predictor of rape myth acceptance, and kernel weighting applied to the discrete predictors.

Perpetrator Blame by Vignette. The model for perpetrator blame in response to the stranger vignette was significant, $R^2 = .15$, adjusted $R^2 = .15$, $F(24,448) = 3.06$, $p = <.001$. Model fit was best when not interaction terms among independent variables were included. F6 – F9 show very little variation among groups. The results showed a positive relationship between rejection of rape myths and perpetrator blame, which is displayed in F10.

The regression for perpetrator blame in the acquaintance vignette was significant, $R^2 = .19$, adjusted $R^2 = .19$, $F(14, 468) = 7.78$, $p = <.001$. The best model fit occurred when two-way interactions between gender, *Haven*, and the *Haven* manipulation were included. There appeared to be no significant main effects for the discrete predictors (see F11 – F14). F15 shows a relationship between rape myth acceptance and higher perpetrator blame, with a slight curve that implies slightly higher perpetrator blame than would be expected of a linear relationship for rape myth acceptance scores around the middle of the scale. There were no significant interactions (see F16 – F18).

The measure of perpetrator blame for the intoxication vignette was also significant, $R^2 = .25$, adjusted $R^2 = .25$, $F(9, 465) = 17.54$, $p = <.001$. The model was quite similar to that of the acquaintance vignette, with the best model fit occurring when two way interactions between gender, the *Haven* training, and the *Haven* manipulation were added. There were no main effects (see F19 – F22) of the categorical variables that appeared significant from the data visualization, but there was a clear relationship between rape myth acceptance and perpetrator blame (see F23). Participants who rejected

more rape myths also assigned the perpetrator more blame. There were no significant interactions (see F24 - F26).

Effect of Vignette on Perpetrator Blame. A repeated-measures ANOVA resulted in a significant effect for the independent variable of vignette on perpetrator blame, $F(2, 962) = 79.14$, $\text{Hyunh-Feldt } p = <.001$. As Mauchly's Test for Sphericity was significant, I used the corrected p-value. Participants assigned more blame to the perpetrator in response to the stranger vignette ($M = 98, SD = 8.64$) than they did in response to the acquaintance vignette ($M = 90.81, SD = 16.79$) and the intoxication vignette ($M = 88.99, SD = 17.63$). A post-hoc dependent-measures t-test with a bonferroni correction resulted in a significant difference between the stranger vignette and the acquaintance vignette, $d_{\text{avg}} = .57, p = <.001$, and the stranger vignette and the intoxication vignette, $d_{\text{avg}} = .69, p = <.001$, and an additional significant difference between the acquaintance and intoxication vignettes, $d_{\text{avg}} = .11, p = .02$.

Reporting Recommendation

Reporting Recommendation by Vignette. I ran a non-parametric regression with a basis spline on rape myth acceptance and kernel weighting on the discrete variables in order to analyze how strongly participants recommended that the victim in the stranger vignette report the incident to law enforcement. The overall model was significant, although it displayed the poorest fit of the entire set of models, $R^2 = .07$, adjusted $R^2 = .06$, $F(21, 452) = 1.6, p = .042$. Model fit was best when two-way interaction terms between gender, the Haven training, and Haven manipulation were added to the model, as well as a three-way interaction among the same independent

variables. None of the main effects appeared significant from the data visualization (see F27 – F30). The relationship between rape myth acceptance and reporting recommendation differed from the majority of the other models, with participants being least likely to recommend that the victim report the incident near the middle of the rape myth scale, rather than when the participant endorses the highest number of rape myths (F31). There was little variation between groups present in the interactions (see F32 – F35).

For the acquaintance vignette, I logarithmically transformed participant responses regarding how strongly they recommend that the victim report the incident to the police for the acquaintance vignette in order to meet the assumption of linearity. The model was significant, $R^2 = .16$, adjusted $R^2 = .15$, $F(5, 477) = 17.82$, $p = <.001$. Rape myth acceptance was a significant predictor. None of the other predictors, including gender, the Haven training, and the Haven manipulation, were significant. Additionally, the control for what class the participants were enrolled in was not significant. See T3 for full results.

I used the same procedure for the law enforcement measure for the intoxication vignette, included using logarithmically transformed data for the dependent variable. The model was again significant, $R^2 = .19$, adjusted $R^2 = .18$, $F(5, 474) = 22.5$, $p = <.001$. Rape myth acceptance was again a significant predictor. Neither gender, the *Haven* training, nor the *Haven* manipulation were significant predictors. The class enrollment variable was significant, as participants enrolled in an upper-level course were more likely to recommend that the victim report the incident to law enforcement. See full results in T4.

Effect of Vignette on Reporting Recommendation. I ran a repeated-measures ANOVA to assess the differences among the reporting recommendations given to the three vignettes. The overall model was significant, $F(2, 952) = 87.45$, $\text{Hyunh-Feldt } p = <.001$. Because Mauchly's Test for Sphericity was significant, I used the corrected p -value. Participants were most likely to recommend that the victim report the incident in response to the stranger vignette ($M = 1.16$, $SD = .69$), and less likely to recommend reporting in response to the acquaintance vignette ($M = 1.79$, $SD = 1.34$) or the intoxication vignette ($M = 1.8$, $SD = 1.26$). A post-hoc dependent-measures t -test with a bonferroni correction showed a significant difference between the stranger vignette and the acquaintance vignette, $d_{avg} = .62$, $p = <.001$, and the stranger vignette and intoxication vignette, $d_{avg} = .66$, $p = <.001$, but no difference between the acquaintance and intoxication vignettes, $d_{avg} = .08$, $p = >.999$.

Labeling

For the labeling dependent variables, I utilized the Haven training, Haven manipulation, and gender as predictors in three logistic multinomial regressions. I also controlled for class enrollment and rape myth acceptance. I did not include interaction terms, as they increased the Akaike Information Criterion (AIC) values for all three models. The models for the stranger vignette (see T5), McFadden $R^2 = .08$, $\chi^2(5) = 26.59$, $p = .003$, the acquaintance vignette (see T6), McFadden $R^2 = .13$, $\chi^2(5) = 82.43$, $p = <.001$, and the intoxication vignette (see T7), McFadden $R^2 = .15$, $\chi^2(5) = 89.69$, $p = <.001$, were all significant. Rape myth acceptance was a significant predictor of the sexual assault label in all cases, and was significant for the consensual sex label in the

acquaintance and intoxication vignettes. It was only a marginally significant predictor of the consensual sex label in response to the stranger vignette. Gender, the *Haven* training, and class enrollment were not significant in any of the analyses. The Haven manipulation was a significant predictor of assigning the consensual label to the intoxication vignette, $p = .014$.

Participants were most likely to assign the rape label in response to the stranger vignette, with 91.11% of participants choosing the label, 7.55% chose the sexual assault label, and 1.22% chose the consensual sex label. In response to the acquaintance vignette, 75.1% of participants chose the rape label, 21.22% chose the sexual assault label, and 3.67% chose the consensual sex label. Finally, for the intoxication vignette, 77.7% chose the rape label, 19.22% chose the sexual assault label, and 3.07% chose the consensual sex label.

Rape Myth Acceptance

I ran a multiple linear regression analysis on participants' rape myth acceptance scores. Because all assumptions were met, neither a non-parametric test nor transformation of the data were necessary. Outlier removal proceeded in the same fashion as prior analyses. The predictor variables consisted of the Haven training, Haven manipulation, participant gender, and political affiliation. The regression was statistically significant, $R^2 = .23$, adjusted $R^2 = .22$, $F(5, 479) = 28.19$, $p = <.001$. Participant gender was a highly statistically significant predictor, as men endorsed more rape myths than women. Political belief was also significant - conservatives endorsed more rape myths than liberals. These differences are particularly evident when individuals with more

strongly liberal or conservative beliefs are compared - the effect size of the difference between participants who described their political beliefs as “extremely liberal” or “liberal” ($M = 4.53$, $SD = .46$) and participants who described their beliefs as “extremely conservative” or “conservative” ($M = 3.77$, $SD = .69$) was very large, $d = 1.27$. Class enrollment was significant as well – students enrolled in upper-level classes rejected more rape myths. Neither the *Haven* training nor the *Haven* manipulation were statistically significant predictors of rape myth acceptance. Full results are displayed in T8. The results of another multiple regression analysis without political affiliation as a predictor also showed statistically significant results for the overall model, $R^2 = .12$, adjusted $R^2 = .11$, $F(5, 479) = 16.68$, $p = <.001$, but had a poorer fit as evidenced by the lower R square value.

DISCUSSION

Haven training is an educational program aimed at reducing the occurrence of sexual assault, domestic violence, and intimate partner abuse. It provides information to students regarding how to recognize unhealthy behavior, how to ensure that you have the informed consent of your partner, actions you can take if you have been victimized, and several ways that bystanders can intervene to reduce occurrences of sexual violence. To test the efficacy of the *Haven* program, *Haven*-trained and non-*Haven-trained* students read three different rape vignettes, providing ratings of victim and perpetrator responsibility, labels of the incident, and recommendations as to whether or not the victim should report the incident to law enforcement. Because participants could not be randomly assigned to intervention and control groups for the official *Haven* training, they were also randomly assigned to either read a short summary of the training or a control paragraph. This manipulation provided participants with direct exposure to information contained in the *Haven* training immediately before they were asked to make judgments about the vignettes. Additionally, I treated gender as an independent variable in the design, as there is robust evidence that women have more empathy for female rape victims, lower rape myth acceptance, and lower victim-blaming than men (Ben-David and Schneider, 2005; Freetly and Kane, 1995; Grubb & Harrower, 2009; Kopper, 1996).

Impacts of *Haven* Training on Judgments (Hypothesis 1)

The results of the experiment did not support the first hypothesis that the completion of the *Haven* training would significantly lower participant victim blame,

increase perpetrator blame, increase the reporting recommendations, and would be predictive of participants labeling the vignettes as rape. The *Haven* training was not a significant predictor in any analysis. This may possibly be due to a relatively low number of Haven-naïve participants in comparison to the number of participants who had completed the training. Additionally, most of the Haven-naïve participants (62.8%) were enrolled in an upper-level psychology course rather than an introductory psychology course, while the majority of participants overall (64.9%) were enrolled in an introductory course. This is noteworthy because enrollment in an introductory class was a significant predictor of rape myth acceptance, which in turn was a significant predictor of the majority of the analyses. There are further differences between these groups that are discussed in greater length in the limitations section.

Impacts of Vignette Type (Hypothesis 2)

The results provide partial support for the second hypothesis that vignette would have a significant effect on the dependent variables, with the least victim blame, most perpetrator blame, and highest reporting recommendation in response to the stranger vignette and the most victim blame, least perpetrator blame, and lowest reporting recommendation would occur in response to the intoxication vignette. Additionally, I hypothesized that participants would be most likely to label the stranger vignette as “rape” and would be least likely to do so for the intoxication vignette. There was a significant difference between the stranger vignette and the acquaintance and intoxication vignettes for victim blame, perpetrator blame, and reporting recommendation—participants responded with less victim blame, more perpetrator blame, and were more likely to

recommend reporting the incident in response to the stranger vignette than the other two. The effect size for these differences were either medium or large. Additionally, 91.11% of participants labeled the stranger vignette as rape, while that number fell to 75.1% and 77.7% for the acquaintance vignette and intoxication vignette, respectively. There was also a significant difference between the acquaintance and intoxication vignettes in regards to perpetrator blame, with more blame assigned to the perpetrator in response to the acquaintance vignette—however, this was not the case for any of the other dependent variables, which contradicts the hypothesis that the inclusion of alcohol in the vignette would increase victim blame and decrease the reporting recommendation. The percentage difference between the two vignettes was also much smaller than the difference between the stranger vignette and the acquaintance and intoxication vignettes. For all dependent variables other than perpetrator blame, the results failed to reject the null hypothesis regarding the acquaintance and intoxication vignettes. This differs from previous research, in which victim intoxication is associated with higher victim blame (Grubb & Harrower, 2009). It is possible that with recent increased media scrutiny and activism efforts on college campuses, cultural shifts have influenced the way that victim intoxication is perceived in rape cases. Additionally, the *Haven* training and manipulation both place an emphasis on the role that alcohol can play in impairing consent on the part of the victim, which may make this information more familiar to a large number of participants.

Gender Differences (Hypothesis 3)

The hypothesis that gender would impact judgments of rape was partially supported, but inconsistent across the various measures. Men assigned significantly more

blame to victims in the acquaintance and intoxication vignettes, with the difference between male and female participants growing slightly larger in response to the intoxication vignette. The observed gender difference is consistent with previous research illustrating gender differences in victim-blaming moderated by details of the scenario (e.g. relationship between victim and perpetrator, intoxication) (Grubb & Harrower, 2009; Szymanski, Devlin, Chrisler and Vyse, 1993). Gender was also a highly significant predictor of rape myth acceptance, as men were more likely to endorse rape myths than women were. However, gender did not predict perpetrator blame in any of the vignettes, which is contradictory to previous research illustrating men being more permissive of perpetrator behavior when the victim and perpetrator are acquainted (Freetly & Kane, 1995; Ben-David & Schneider, 2005). The lack of a significant gender effect for the reporting to law enforcement recommendation was also peculiar, as there was an effect for gender in response to the acquaintance ($d = .17$) and intoxication ($d = .2$) vignettes. In comparison, the effect size was smaller for the effect of gender on victim blame, despite gender being a significant predictor in those cases. Rape myth acceptance does not appear to drown out the effect of gender on reporting recommendation (i.e. serve as a mediator) – without rape myth acceptance added to the model, gender is still not significant. It is possible that high error may have influenced the significance tests.

Impacts of *Haven* Manipulation (Hypothesis 4)

The *Haven* manipulation was not a significant predictor of most of the outcome variables. This does not align with the hypothesis that the Haven manipulation would decrease victim blame, increase perpetrator blame, increase reporting recommendations,

and increase the likelihood that participants would label the vignettes as rape. Perhaps because the majority of the participants had already completed the training prior to participating in the experiment, and the majority of participants who were naïve to the Haven training were enrolled in upper-level courses and more likely to have been exposed to similar information than haven-naïve freshmen, the Haven manipulation did not provide information that many students were unfamiliar with prior to their participation in the research. Interestingly, in the one instance in which the Haven manipulation significantly impacted a judgment, it increased the likelihood that participants labeled the intoxication vignette as consensual sex. It is important to note that the number of individuals who did so is very low – only fifteen participants used the label. Of those fifteen participants, twelve were in the *Haven* manipulation condition. In contrast, eighteen participants labeled the acquaintance vignette as consensual, and the Haven manipulation did not seem to impact the assigned label. In addition to the risk of chance results stemming from a small sample, it is possible that, because the manipulation paragraph states that a *large* amount of alcohol impairs an individual's ability to give informed consent, some participants believed the victim was not that impaired in the intoxication scenario—the victim was described as being more moderately impaired in this vignette. Because the intoxication vignette is otherwise very similar to the acquaintance vignette, the level of victim intoxication may have been a more salient factor regarding consent to participants than the victim's revoked verbal consent. Overall, the results of the study do not support Hypothesis 4.

Strengths and Limitations

This study had several strengths. First, I recruited a large sample that initially included 598 participants. The considerable size of the sample allowed for the removal of participants who failed the manipulation check without losing a large amount of statistical power. After removing those participants as well as individuals with missing data, there was still a remaining sample size of 490 participants. The complex design of the study also allowed for data on several relevant dependent variables to be collected, which allowed for a more comprehensive approach to assessing factors relevant to student perceptions of sexual violence. Furthermore, the addition of a *Haven* manipulation allowed for direct experimental control of relevant information from the *Haven* training. This aids in drawing more complete inferences regarding the effect of the *Haven* training by exposing participants to information immediately prior to participating in the rest of the experiment, thereby reducing the risk of potential confounds created by only measuring *Haven* training completion. Another strength of the design is that the participant pool was largely appropriate for the population I sampled. The purpose of the research was examine college students' attitudes/judgments about sexual violence, and thus generalizing from my sample is more appropriate than is often the case with basic research meant to generalize to the population at large.

Despite some strengths, there were some serious limitations that threaten the generalizability of my findings, especially with regard to the impact of *Haven* training. Notably, the majority of the freshman students who participated in the study had completed the *Haven* training prior to their involvement in the research; this resulted in a relatively small number of *Haven*-naïve participants. Additionally, participants I

consequently recruited who were enrolled in other classes and were less likely to have completed the *Haven* training were typically older than the students enrolled in the introductory course—this confound makes it difficult to interpret why I did not observe differences between the *Haven* and No *Haven* groups. Because upper-level classes contained a higher proportion (31.4%) of Haven-naïve participants than the introductory classes (10.06%), the Haven-naïve sample was biased towards students who had completed more coursework when compared to the Haven-naïve sample. Additionally, students in upper-level classes ($M = 3.8$, $SD = 1.49$) were more liberal than those in the introductory class ($M = 4.34$, $SD = 1.41$), and participants with liberal beliefs were more likely to reject rape myths than participants with conservative beliefs (political affiliation was measured on a 7-point scale with lower numbers representing more liberal beliefs). This difference was statistically significant, $t(488) = 3.97$, $p = <.001$, $d = .38$. The analysis of rape myth acceptance also showed that there was a very large difference between participants who labeled themselves as “very liberal” or “liberal” and those who labeled themselves as “very conservative” or “conservative.” Recruiting participants at freshman orientation or very early in the fall semester could mitigate these concerns by allowing for a more evenly distributed sample in terms of *Haven* completion, eradicating the need for participants from upper level courses. Another limitation was the large proportion of White students in my sample. Although the racial composition of my sample roughly matches the demographics of Missouri State University (Missouri State University Office of Institutional Research, 2017), the small number of participants from minority groups is a threat to the generalizability of my findings beyond White students.

Finally, there were many more female than male participants, although the substantial sample size allowed for a moderately large number of male participants in totality.

Conclusions

The modern epidemic of sexual assault cases on college campuses has raised increasing concern within educational institutions, underscoring the need for effective preventative measures to reduce sexual violence (American College Health Association, 2011). The results of this experiment failed to support the *Haven* training as an intervention that reduces victim blame, increases perpetrator blame, increases reporting to law enforcement, or increases labeling of examples of sexual violence as rape. However, there are several reasons why this may be the case, and it is important to acknowledge that sample limitations may account for the results of the experiment. This limitation could be addressed by sampling *Haven*-naïve students who are more similar to students who have completed the training, such as drawing a sample from students during freshman orientation.

The data gathered did bolster some findings from previous research (Du Mont, Miller, & Myhr, 2003; Grubb & Harrower, 2009; Kahn, Jackson, Kully, Badger, & Halvorsen, 2003; Pino & Meier, 1999), such as replicating the impact of stereotypical features of rape on attitudes towards sexual violence. Most consistently, participants judged the account of a stranger rape differently from the vignettes that describe a rape between acquaintances. Participants judged the latter victims as more blameworthy and the perpetrators less so, and were additionally less likely to recommend the victims in the acquaintance vignettes report the incident to law enforcement. The Cohen's d for the

differences between the stranger and acquaintance vignettes consistently ranged from around .5 - .7; often considered a medium to large effect (Field, Miles, & Field, 2012). The vignette effect is particularly troubling because previous research has found that victims are also less likely to identify and report acquaintance rape (Kahn, Jackson, Kully, Badger, & Halvorsen, 2003). This acknowledgment is vital because it reduces the risk that a rape survivor will be victimized again in the future (Hammond & Calhoun, 2007). The presence of stereotypical features also increases the likelihood that victims will report the crime (Du Mont, Miller, & Myhr, 2003; Pino & Meier, 1999). Thus pervasive attitudes that designate some occurrences of sexual assault as less significant do not only affect the decision-making of a third-party, but can influence how survivors of rape process the aftermath of the event. This suggests that increasing reporting rates - a vital step towards improving the safety of students who are at an increased risk of experiencing sexual violence - will necessitate addressing the widespread influence of cultural myths regarding rape.

The results also underscore the importance of a perceiver's gender in judging rape cases, as gender was a significant predictor of both victim blame and rape myth acceptance. Previous research on the topic has suggested that this may be due to men perceiving themselves as more similar to perpetrators in accounts of male-on-female sexual violence and subsequently empathizing with the victim less than women do (Grubb & Harrower, 2009). Other research has also suggested that the way men and women perceive consent is different, as women perceive consent as being affirmative while men may perceive consent as being present unless that assumption is explicitly challenged (Verberg, Wood, Desmarais, & Senn, 2000). However, as it is clearly stated a

“no” is given by the victims in the acquaintance and intoxication vignettes, the data affirms that this difference alone is not the primary cause of the apparent gender based disparity. Interventions that actively encourage empathizing with victims may possibly aid in closing the divide in attitudes towards female rape victims that men and women display.

Although my data suggests that people (especially men) are more prone to victim-blaming in date-rape scenarios and that *Haven* training does not appear to mitigate this bias, there were also positive conclusions to be drawn from the data. On average, students were most likely to indicate that they “somewhat disagree” with common rape myths. Even in response to the vignettes that prompted the lowest designation of the “rape” label, participants still selected this response more than 75% of the time. Mean overall perpetrator blame never fell below 89% and mean overall victim blame hovered near 15% at the highest. While there is certainly room for improvement, particularly in addressing the significance assigned to whether or not a rape case meets a stereotypical narrative, there is evidence that rape myth acceptance continues to decrease as students progress through higher education. Decreasing the length of time it takes for those attitude shifts to develop will be paramount in reducing future occurrences of sexual violence.

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Table 1. Acquaintance Vignette Victim Blame Results. Descriptive and inferential statistics for individual predictors are included.

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>d</i> ¹
Gender	.55	1.97	.0497				.04
Male				16.39	22.54	142	
Female				15.34	26.14	343	
Haven	.30	.92	.361				.01
Yes				15.58	25.06	401	
No				15.95	25.55	84	
Haven	.30	1.24	.218				.08
Manipulation							
Control				16.65	25.53	233	
Manipulation				14.72	24.75	252	
RMA	2.54	13.29	<.001				
Class	.29	1.06	.288				.11
Introductory				16.65	26.06	316	
Upper-Level				13.78	23.23	169	

¹ Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value, *M* = mean, *SD* = standard deviation, *n* = number of participants, *d* = Cohen's *d*.

Table 2. Intoxication Vignette Victim Blame Results. Descriptive and inferential statistics for individual predictors are included.

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>d</i> ²
Gender	.54	2.12	.035				.14
Male				16.88	21.13	141	
Female				13.86	22.50	343	
Haven	.48	1.58	.114				.02
Yes				14.65	21.83	401	
No				15.18	23.66	83	
Haven	.25	1.14	.256				.10
Manipulation							
Control				15.84	23.74	232	
Manipulation				13.73	20.54	252	
RMA	2.69	15.39	<.001				
Class	.15	.59	.557				.26
Introductory				16.73	24.01	317	
Upper-Level				10.97	17.49	167	

² Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value, *M* = mean, *SD* = standard deviation, *n* = number of participants, *d* = Cohen's *d*.

Table 3. Acquaintance Vignette Reporting Recommendation Results. Descriptive and inferential statistics for individual predictors are included.

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>d</i> ³
Gender	.01	.59	.554				.17
Male				2.01	1.51	141	
Female				1.76	1.37	342	
Haven	.00	.01	.990				.06
Yes				1.85	1.39	398	
No				1.76	1.53	85	
Haven	.01	.65	.517				.04
Manipulation							
Control				1.80	1.44	234	
Manipulation				1.86	1.39	249	
RMA	.14	8.65	<.001	NA	NA	NA	NA
Class	.03	1.32	.187				.26
Introductory				1.96	1.49	312	
Upper-Level				1.6	1.23	171	

³ Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value, *M* = mean, *SD* = standard deviation, *n* = number of participants, *d* = Cohen's *d*.

Table 4. Intoxication Vignette Reporting Recommendation Results. Descriptive and inferential statistics for individual predictors are included.

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>d</i> ⁴
Gender	.02	.68	.495				.2
Male				1.98	1.35	141	
Female				1.73	1.2	339	
Haven	.01	.44	.658				.22
Yes				1.85	1.29	396	
No				1.58	1.03	84	
Haven	.04	1.77	.077				.17
Manipulation							
Control				1.69	1.15	234	
Manipulation				1.91	1.36	246	
RMA	.14	9.18	<.001				
Class	.05	2.27	.024				.58
Introductory				1.97	1.37	310	
Upper-Level				1.49	.94	170	

⁴ Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value, *M* = mean, *SD* = standard deviation, *n* = number of participants, *d* = Cohen's *d*.

Table 5. Stranger Vignette Labeling Results.

Variable	<u>Sexual Assault Label</u>			<u>Consensual Sex Label</u>		
	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i> ⁵
Gender	.61	1.46	.145	.56	.60	.547
Haven	.08	.16	.874	15.66	<.01	.996
Haven Manipulation	.02	.07	.947	1.49	1.34	.179
RMA	.9	3.4	<.001	1.17	1.94	.053
Class	.4	.94	.345	16.26	<.01	.995

⁵Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value.

Table 6. Acquaintance Vignette Labeling Results.

Variable	<u>Sexual Assault Label</u>			<u>Consensual Sex Label</u>		
	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i> ⁶
Gender	.12	.43	.669	.50	.86	.391
Haven	.05	.14	.315	.74	1.20	.228
Haven Manipulation	.12	.48	.629	.16	.32	.746
RMA	1.38	7.03	<.001	2.24	5.13	<.001
Class	.27	1.01	.315	.63	1.06	.289

⁶Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value.

Table 7. Intoxication Vignette Labeling Results.

Variable	<u>Sexual Assault Label</u>			<u>Consensual Sex Label</u>		
	<i>b</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>t</i>	<i>p</i> ⁷
Gender	.22	.81	.417	.09	.15	.884
Haven	.57	1.70	.089	.59	.79	.428
Haven Manipulation	.10	.41	.680	1.91	2.45	.014
RMA	1.31	6.55	<.001	2.1	4.55	<.001
Class	.34	1.13	.258	<.01	.01	.990

⁷ Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value.

Table 8. Rape Myth Acceptance Results. Descriptive and inferential statistics for individual predictors.

Variable	<i>b</i>	<i>t</i>	<i>p</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>d</i> ⁸
Gender	.34	6.12	<.001				.68
Male				3.75	.7	344	
Female				4.18	.6	141	
Haven	.08	1.09	.276				.23
Yes				4.03	.67	402	
No				4.18	.64	83	
Haven Manipulation	<.01	.13	.895				.03
Control				4.06	.67	235	
Manipulation				4.04	.66	250	
Class	.17	2.86	.004				.51
Introductory				3.94	.69	316	
Upper-Level				4.27	.55	169	
Political Beliefs	.16	5.64	<.001				NA
Very Liberal				4.7	.31	10	
Liberal				4.51	.49	76	
Slightly Liberal				4.22	.58	60	
Moderate				3.98	.63	149	
Slightly Conservative				3.94	.62	79	
Conservative				3.82	.69	97	
Very Conservative				3.41	.71	14	

⁸ Key: *b* = unstandardized regression coefficient, *t* = *t*-statistic, *p* = *p*-value, *M* = mean, *SD* = standard deviation, *n* = number of participants, *d* = Cohen's *d*.

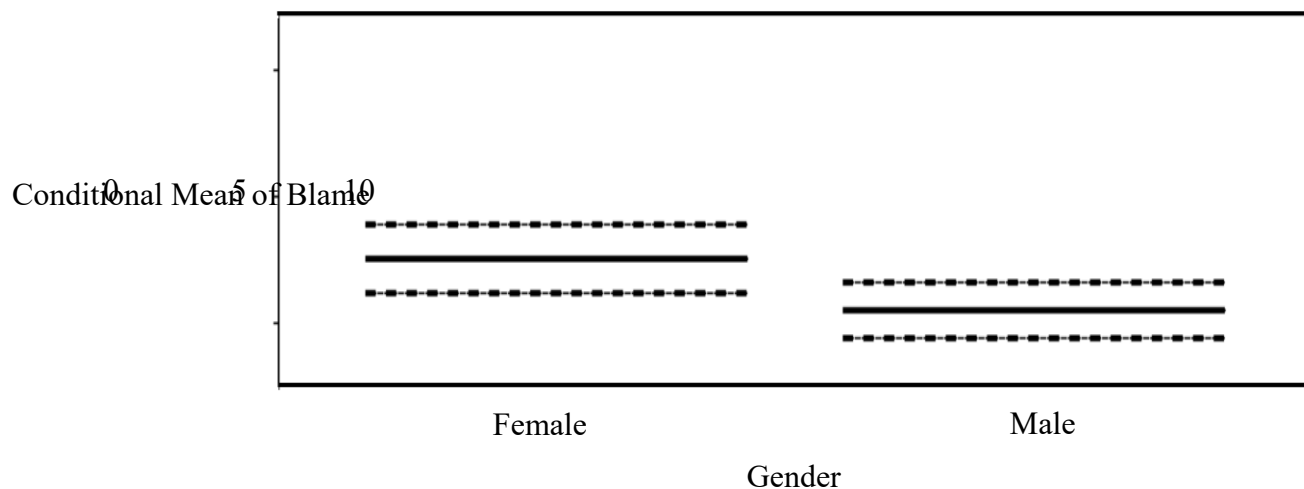


Figure 1. Gender differences in stranger vignette victim blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

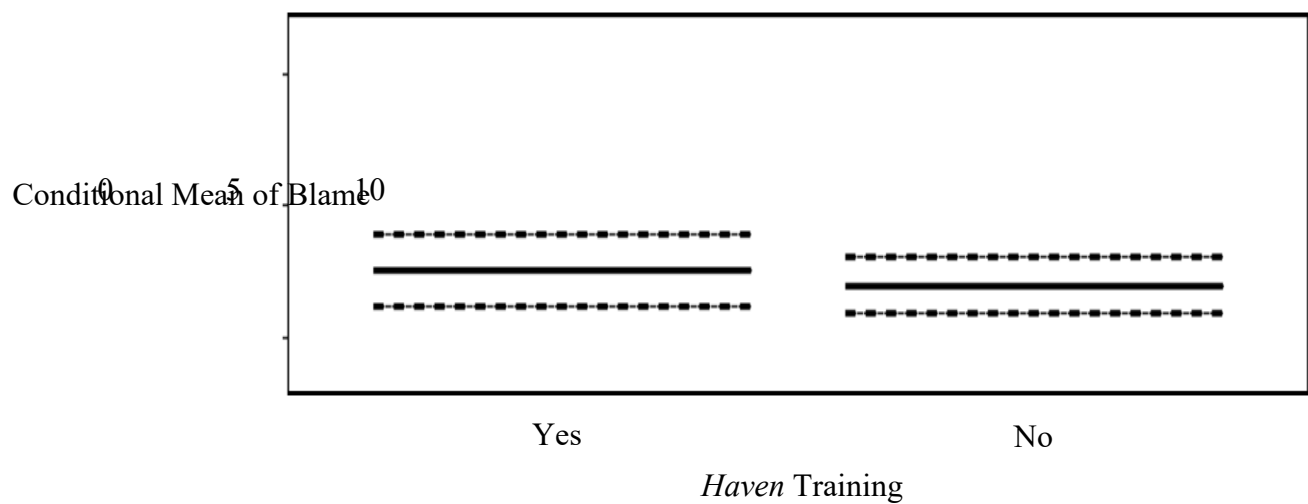


Figure 2. *Haven* training differences in stranger vignette victim blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

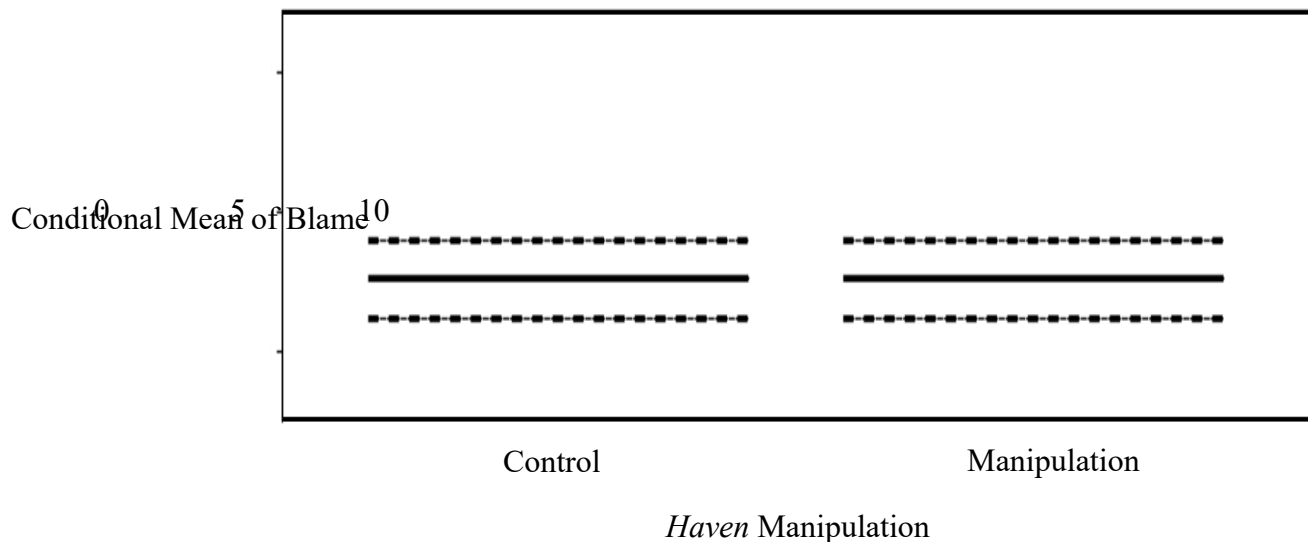


Figure 3. *Haven* manipulation differences in stranger vignette victim blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

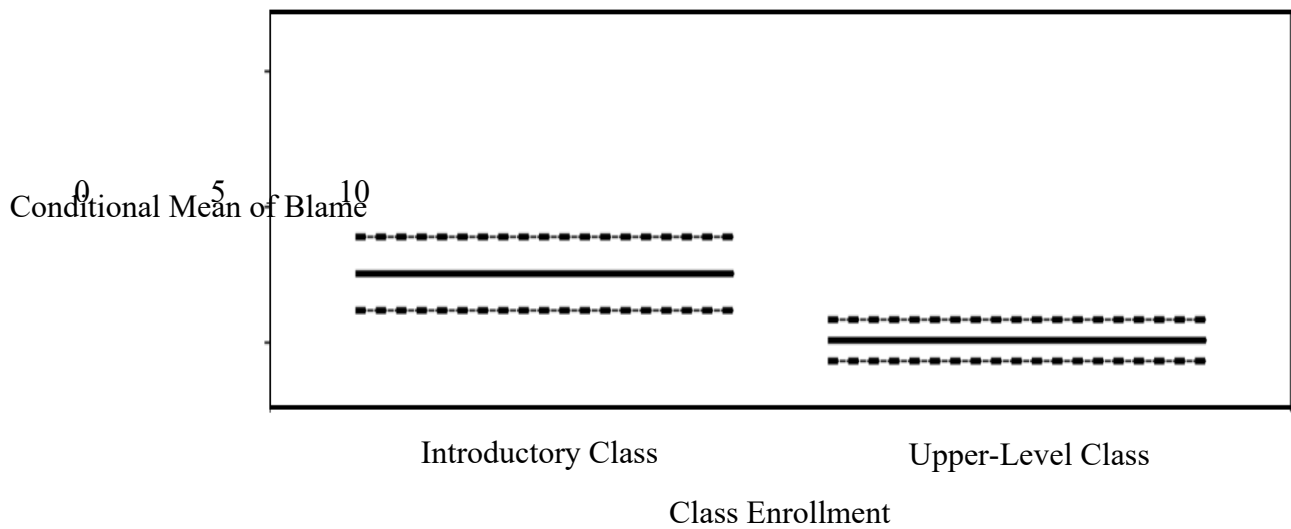


Figure 4. Class differences in stranger vignette victim blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

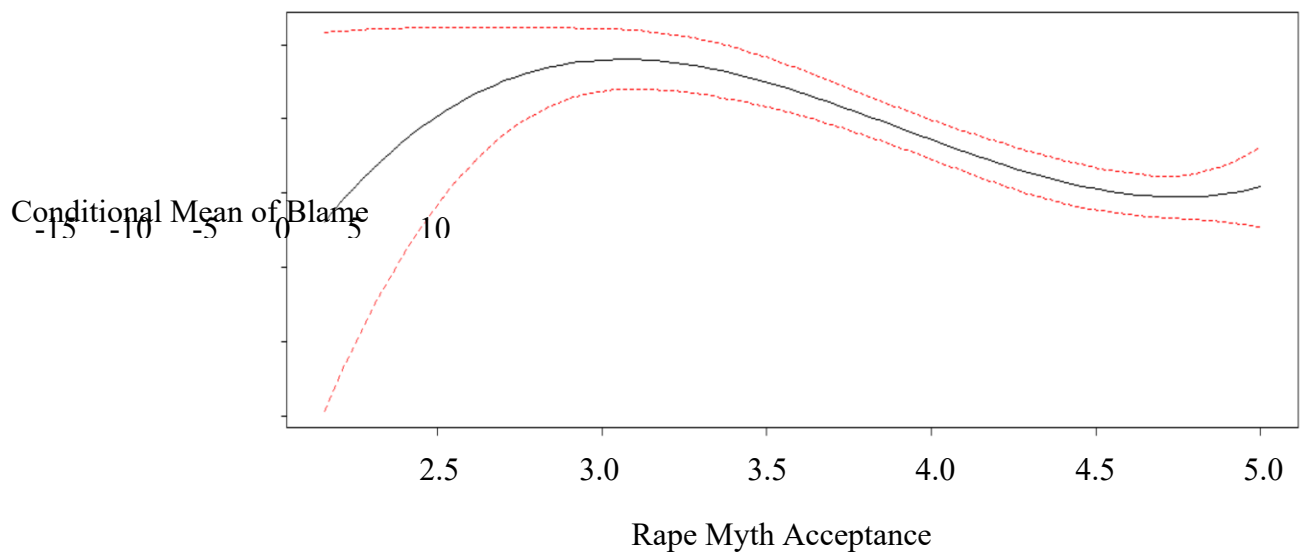


Figure 5. Rape myth acceptance and stranger vignette victim blame.

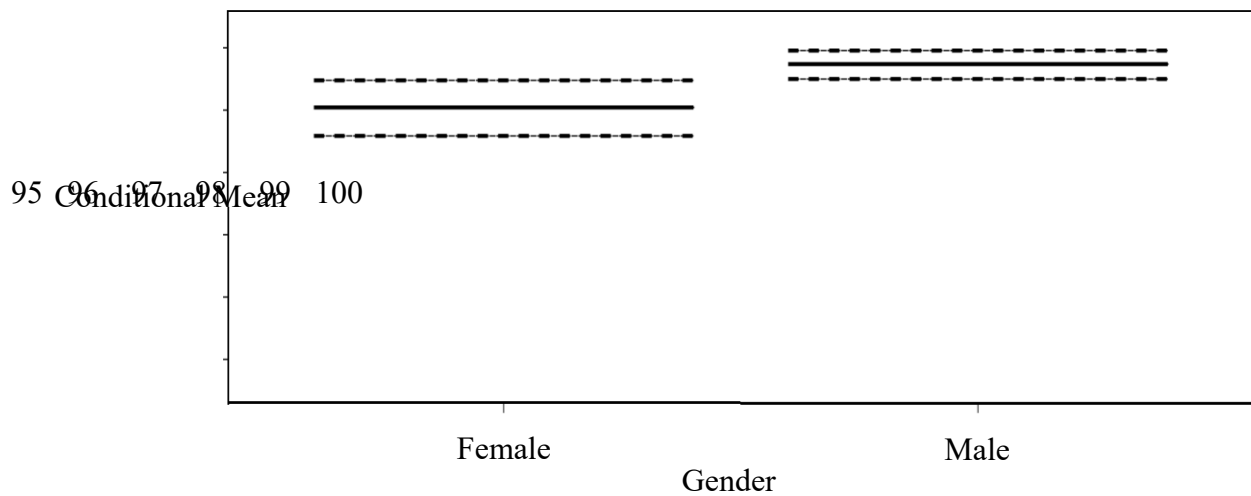


Figure 6. Gender differences in stranger vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

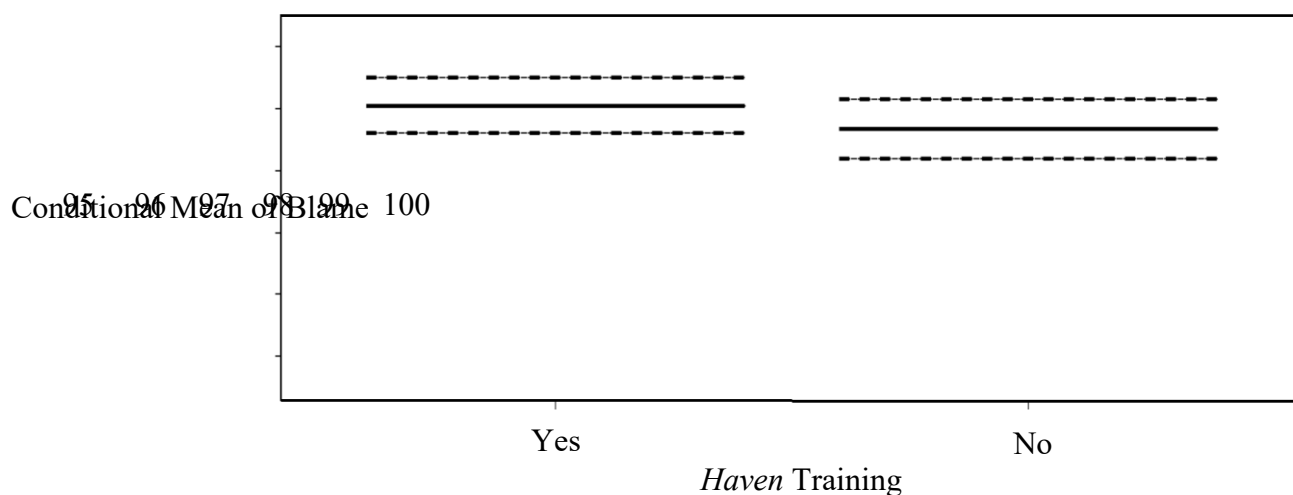


Figure 7. *Haven* training differences in stranger vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

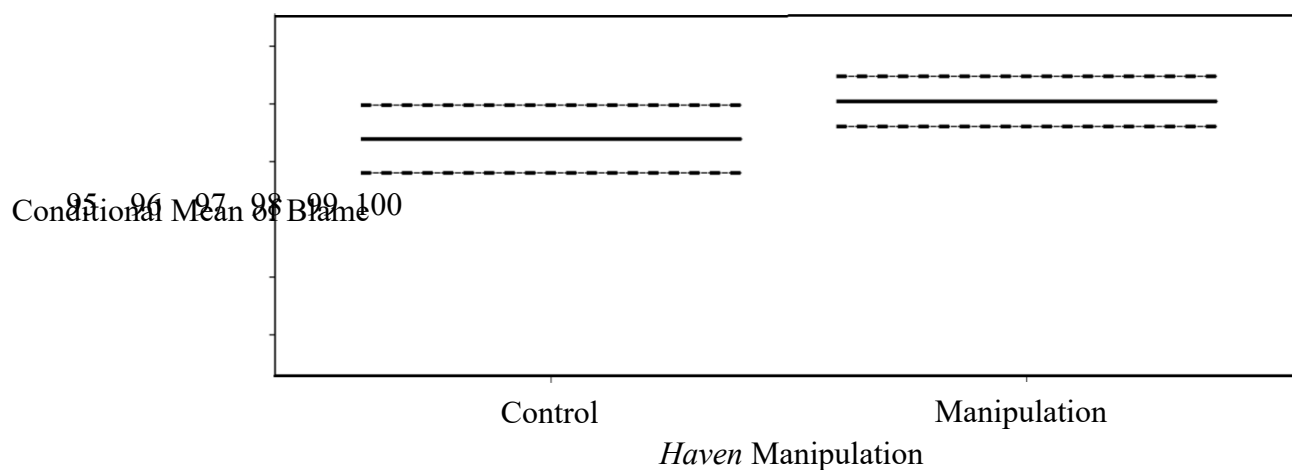


Figure 8. *Haven* manipulation differences in stranger vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.



Figure 9. Class enrollment differences in stranger vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

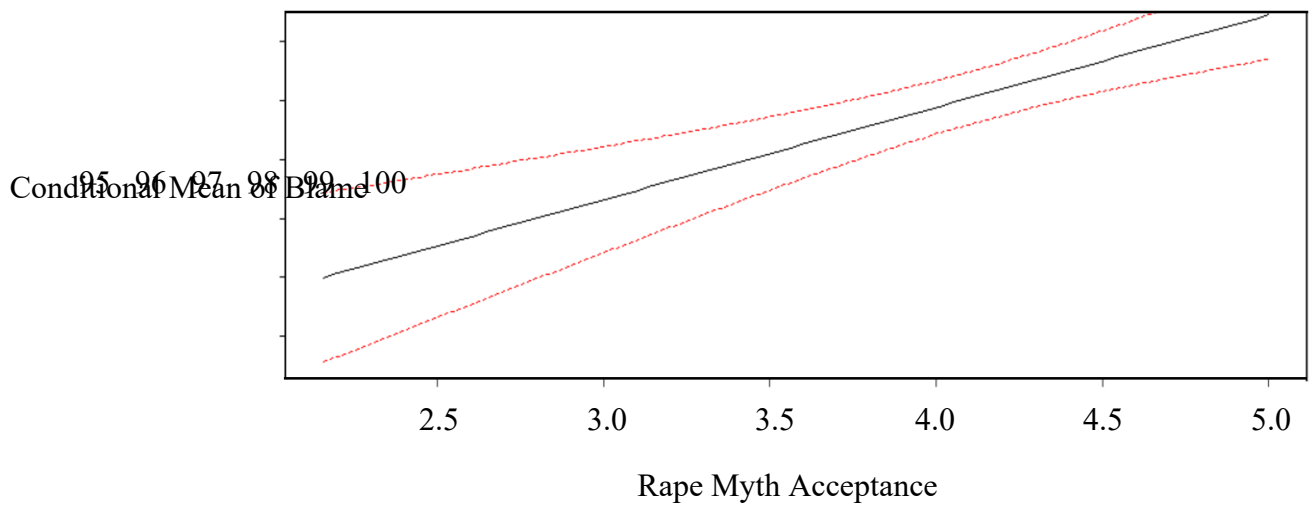


Figure 10. Rape myth acceptance and stranger vignette perpetrator blame.

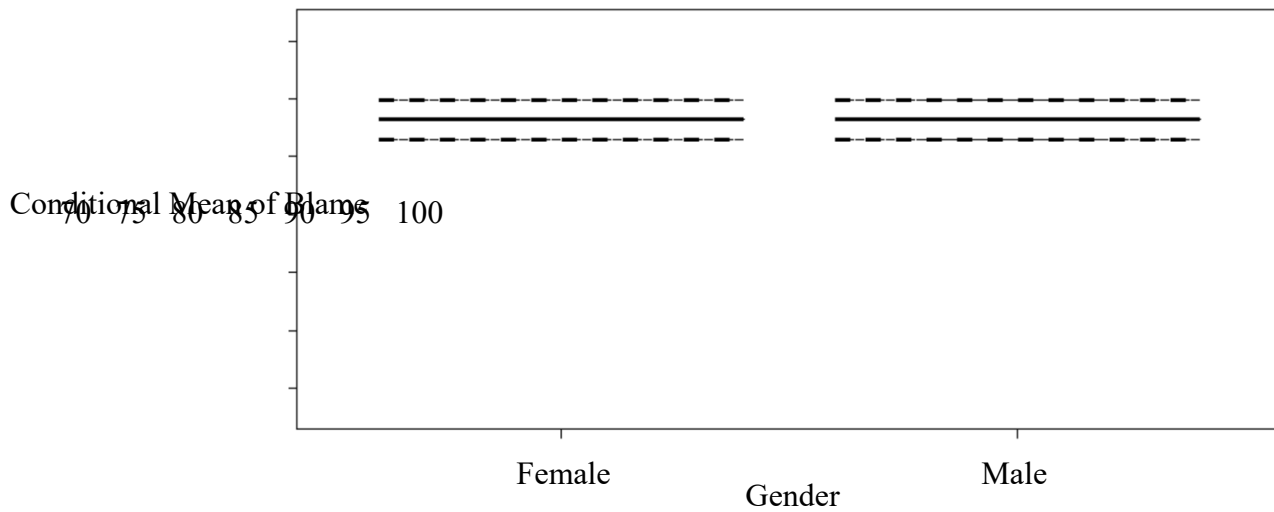


Figure 11. Gender differences in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

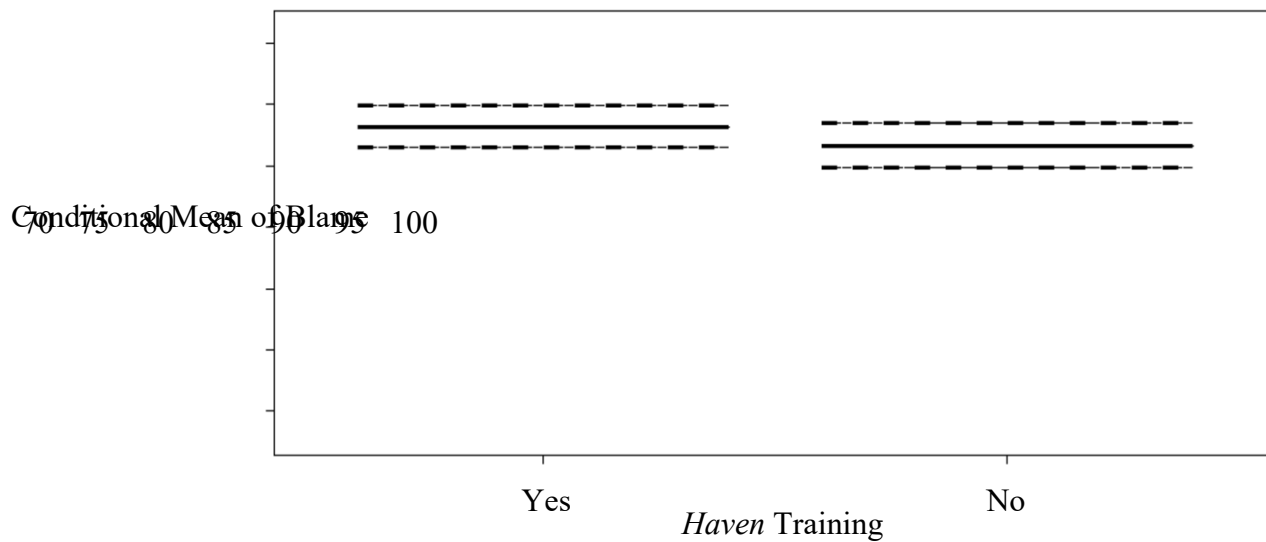


Figure 12. *Haven* training differences in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

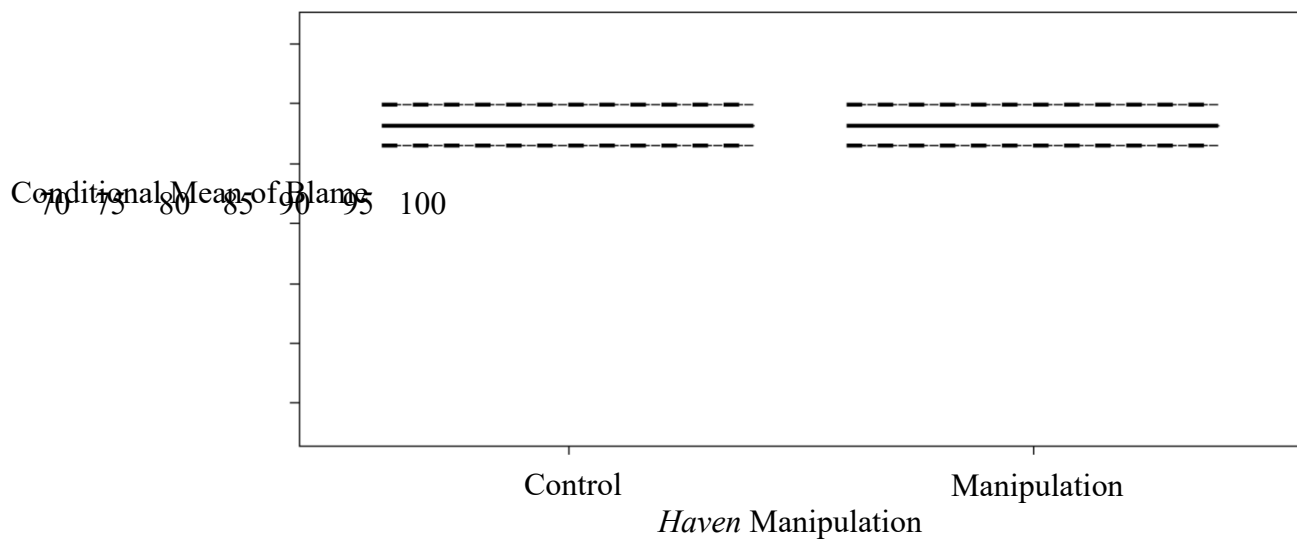


Figure 13. *Haven* manipulation differences in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

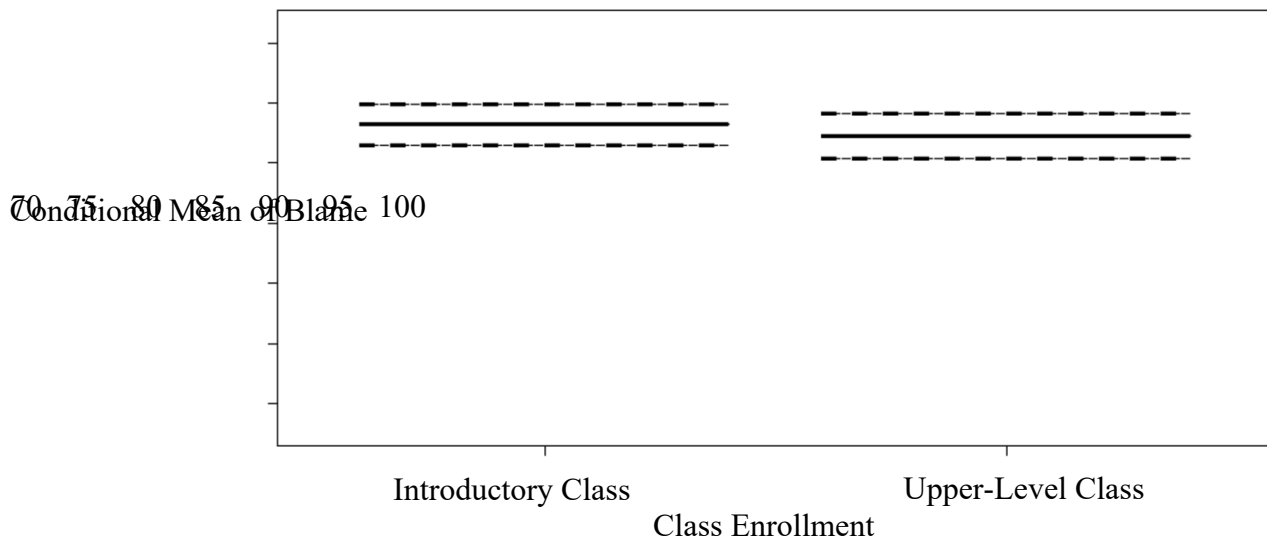


Figure 14. Class differences in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

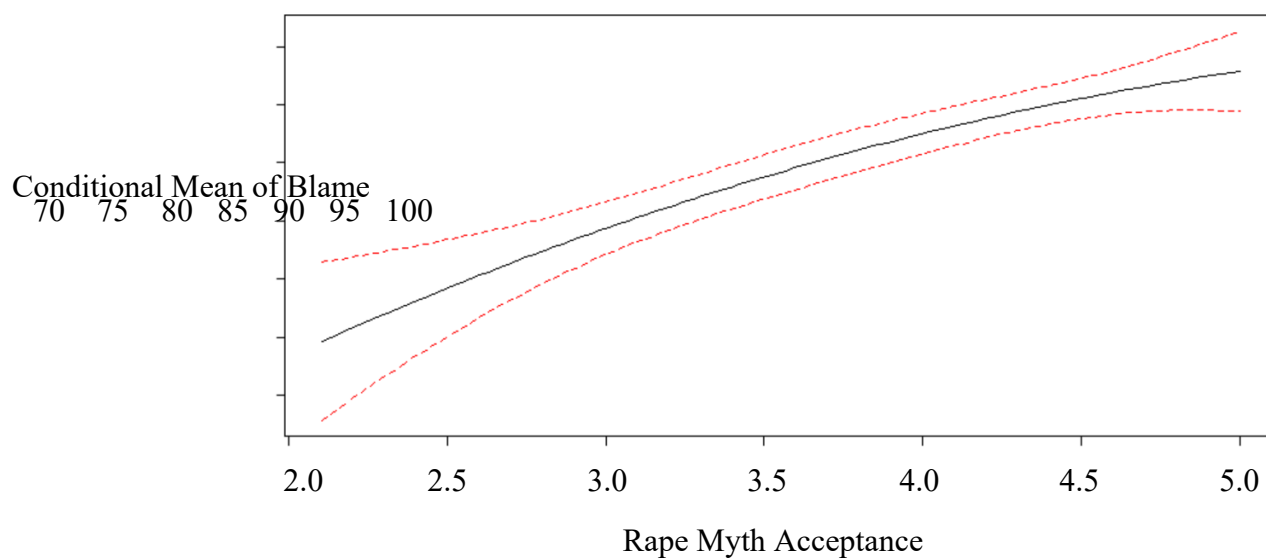


Figure 15. Effect of rape myth acceptance in acquaintance vignette perpetrator blame.

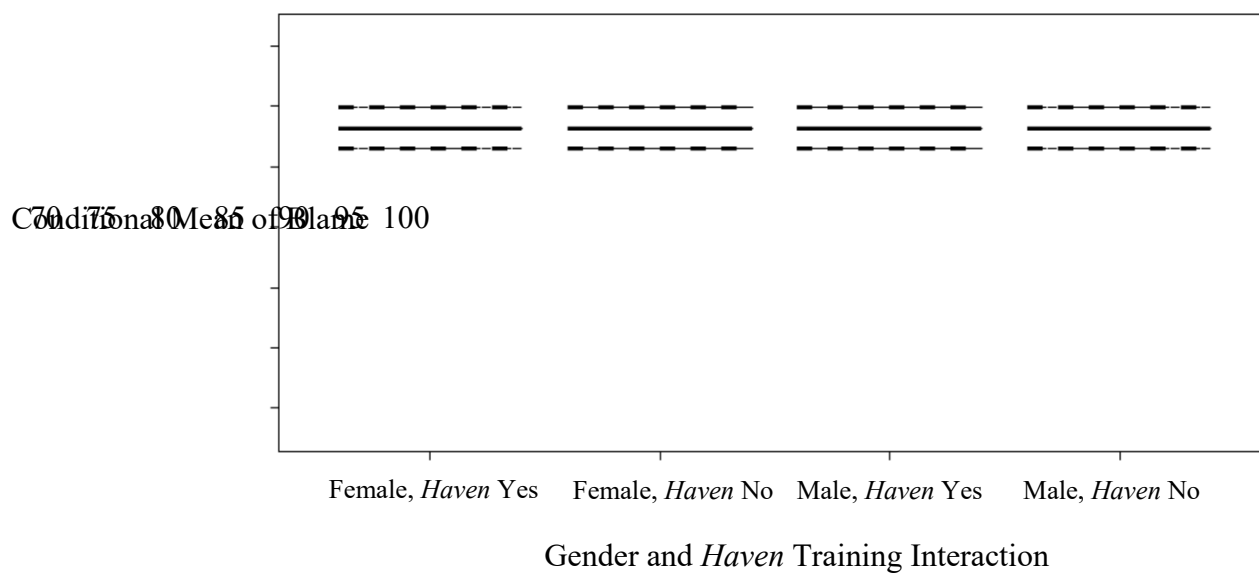


Figure 16. Gender and *Haven* training interaction in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

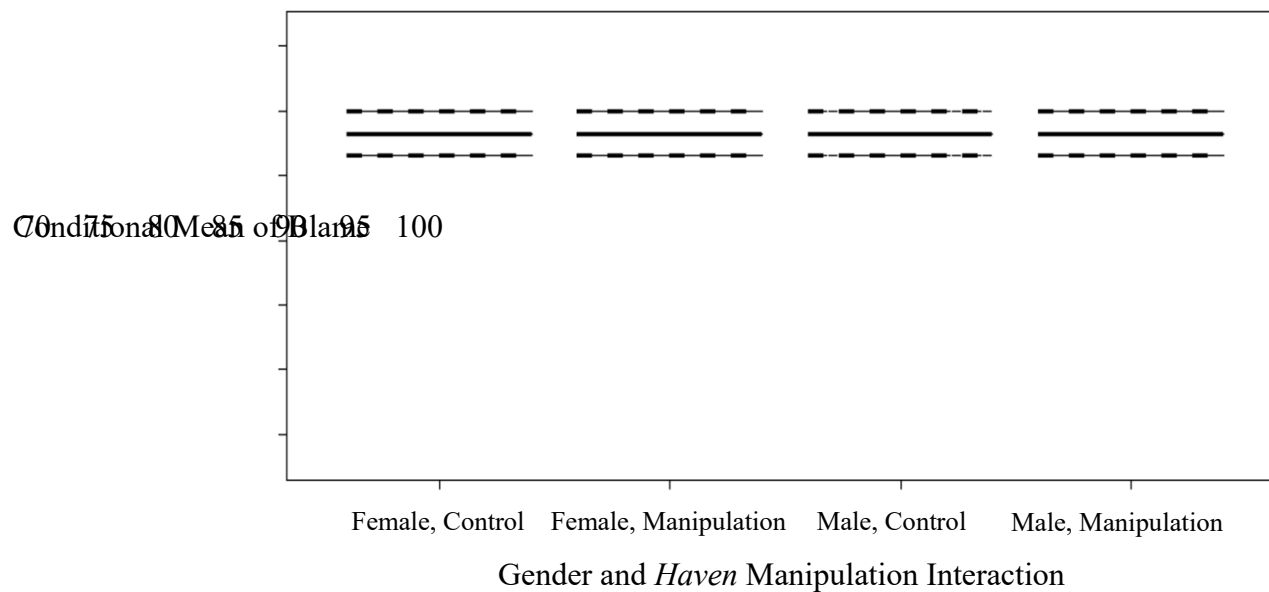


Figure 17. Gender and *Haven* manipulation interaction in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

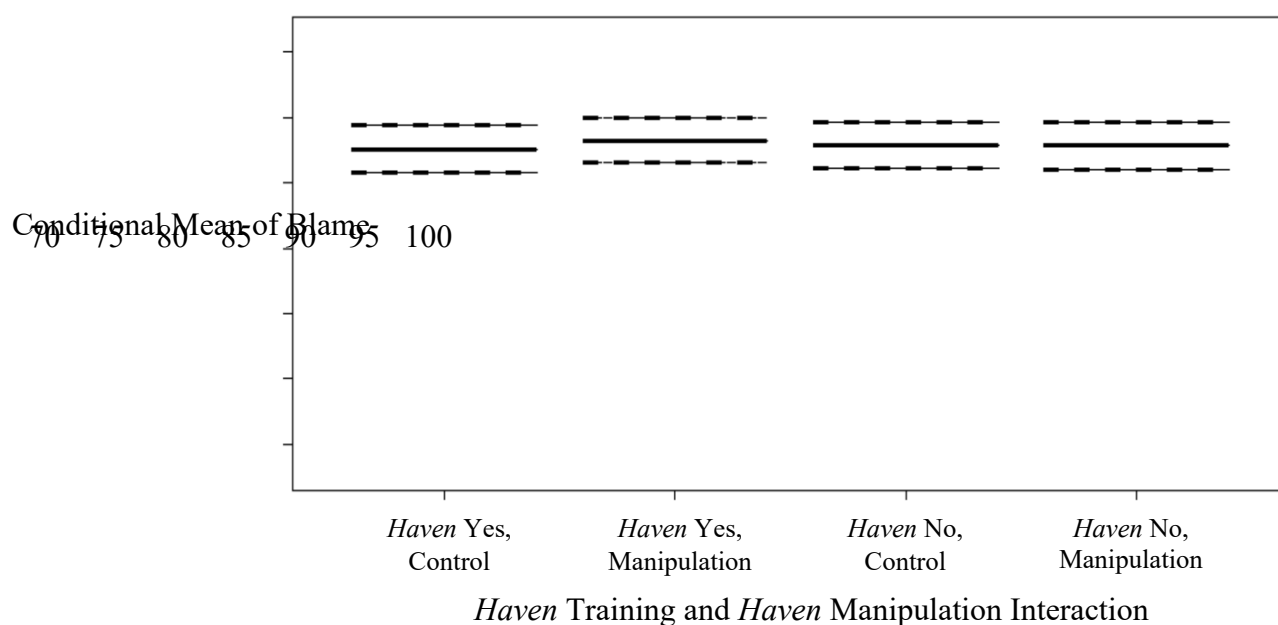


Figure 18. *Haven* Training and *Haven* Manipulation interaction in acquaintance vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

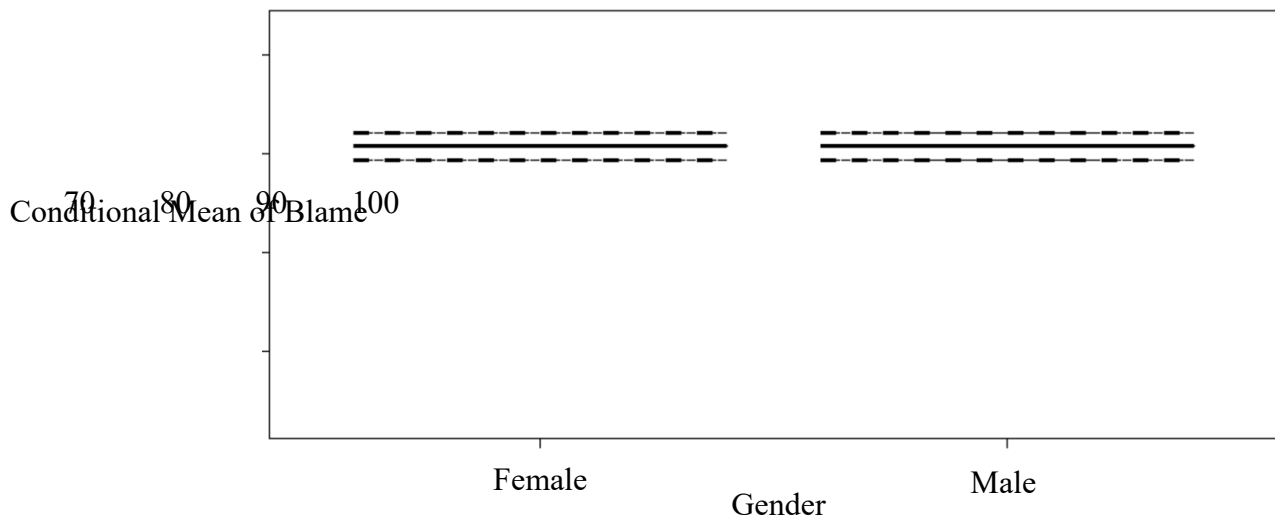


Figure 19. Gender differences in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

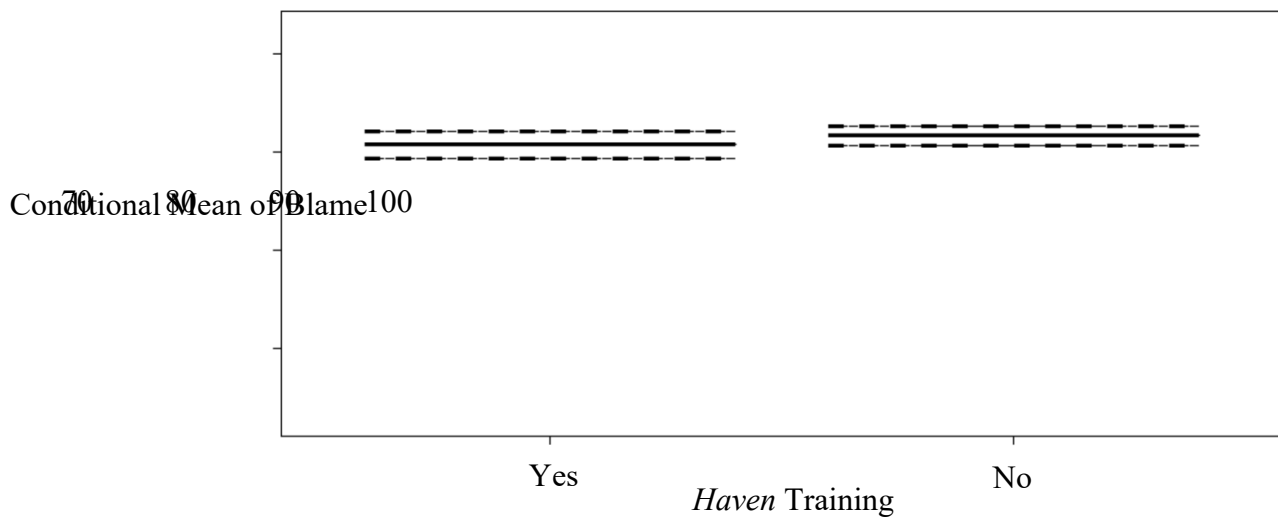


Figure 20. *Haven* training differences in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

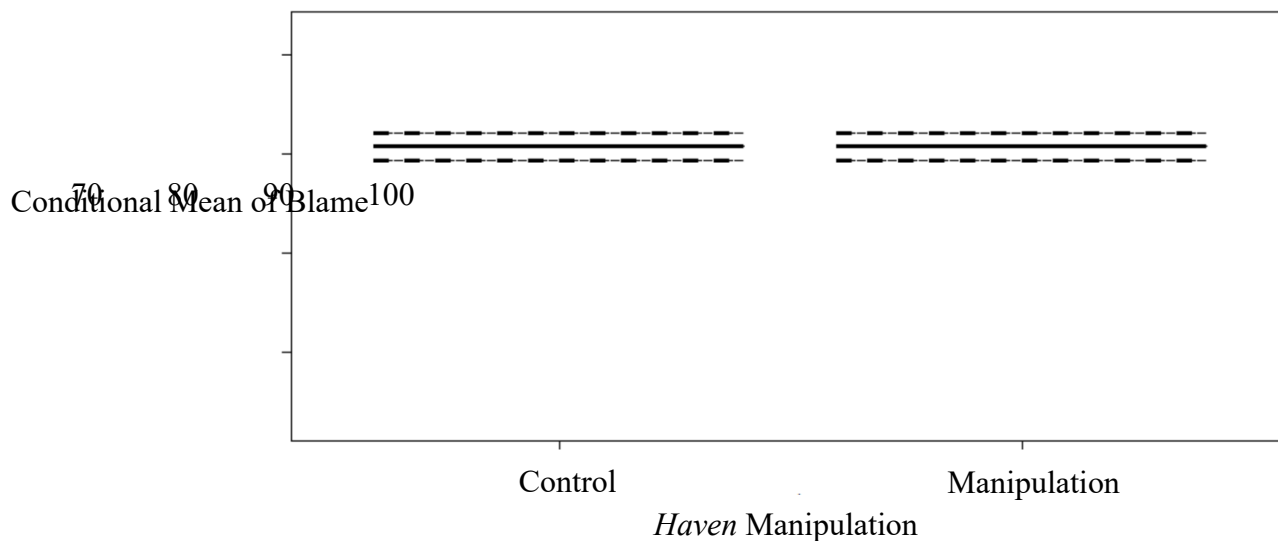


Figure 21. *Haven* manipulation differences in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

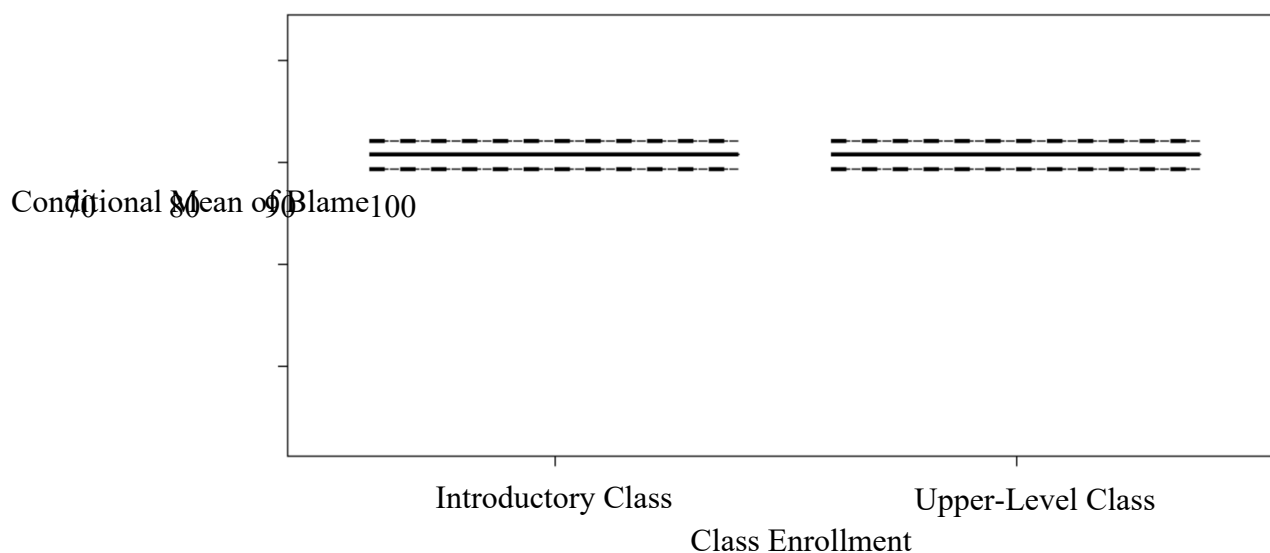


Figure 22. Class enrollment differences in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

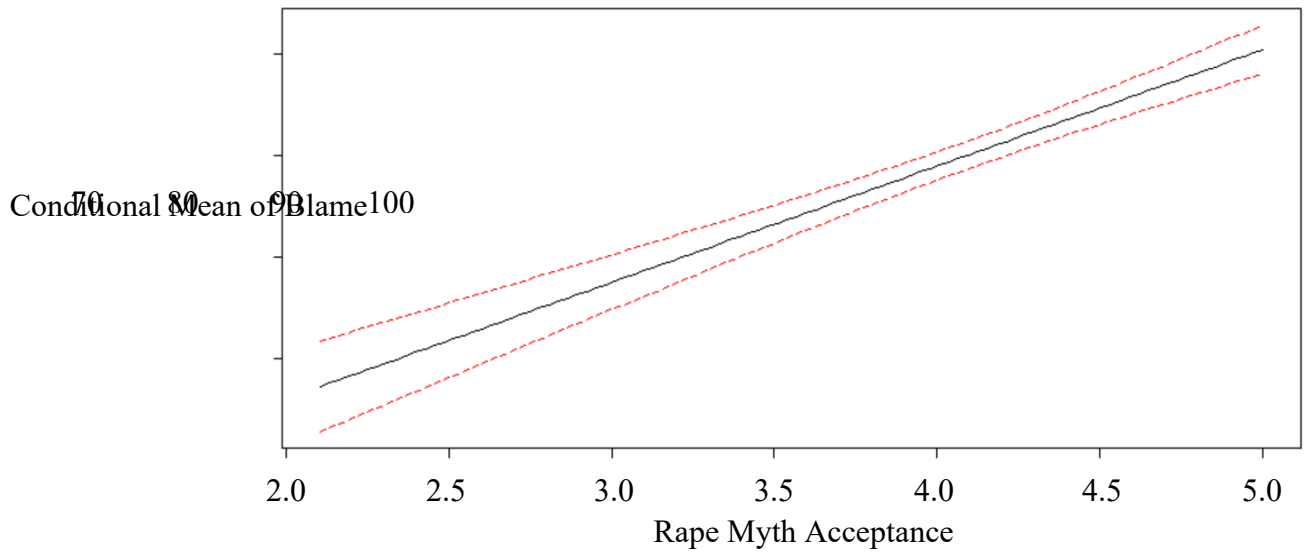


Figure 23. Rape myth acceptance and intoxication vignette perpetrator blame.

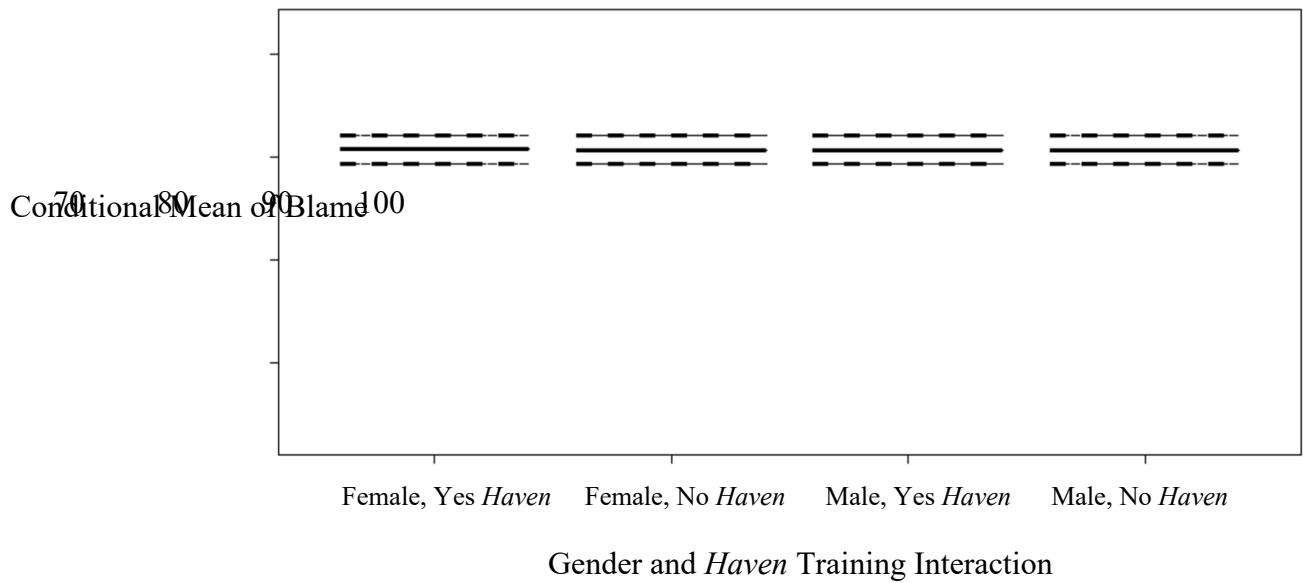


Figure 24. Gender and *Haven* training interaction in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

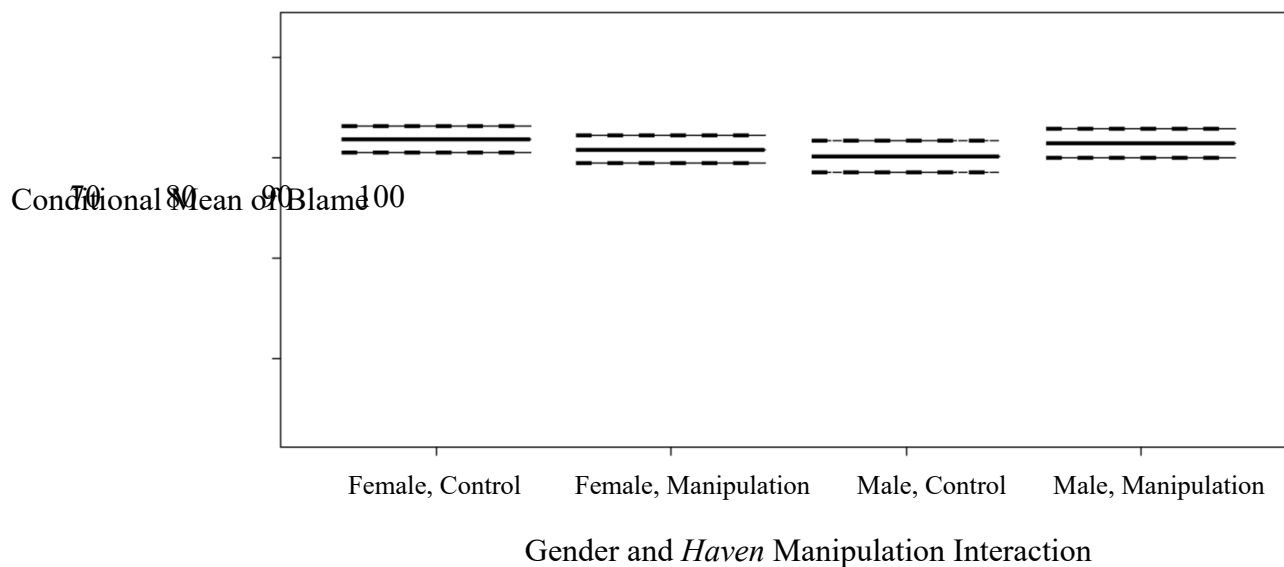


Figure 25. Gender and *Haven* manipulation interaction in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

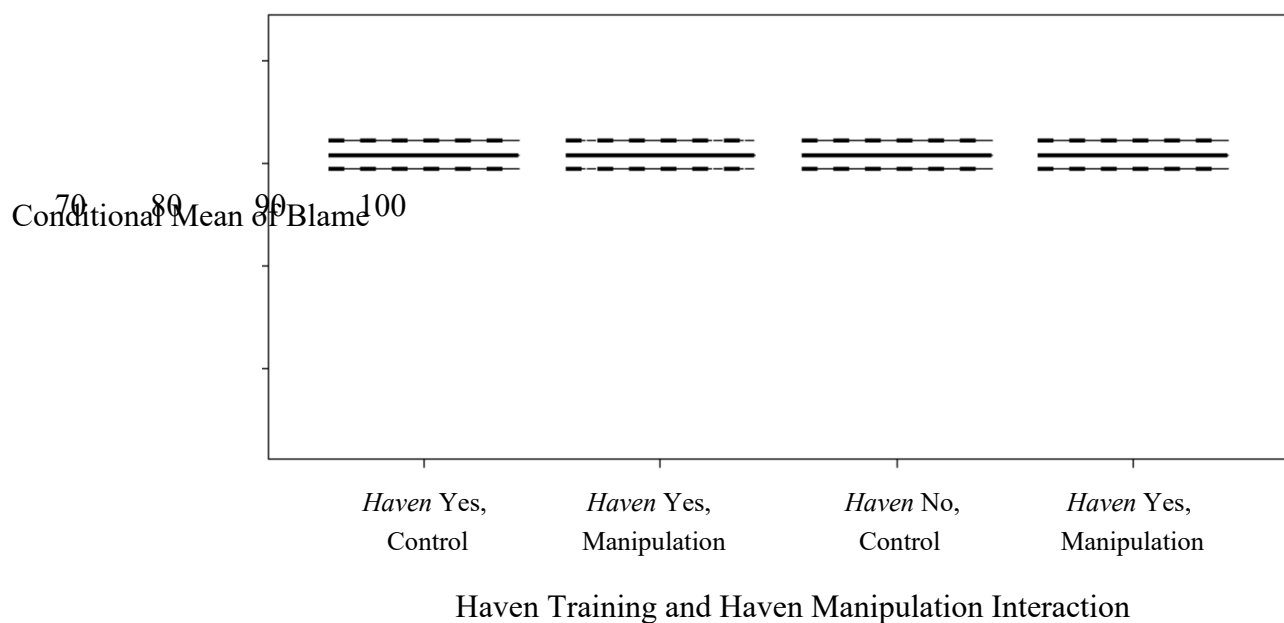


Figure 26. *Haven* training and *Haven* manipulation interaction in intoxication vignette perpetrator blame, displayed by mean blame assigned by group, with dashed lines representing 95% confidence intervals.

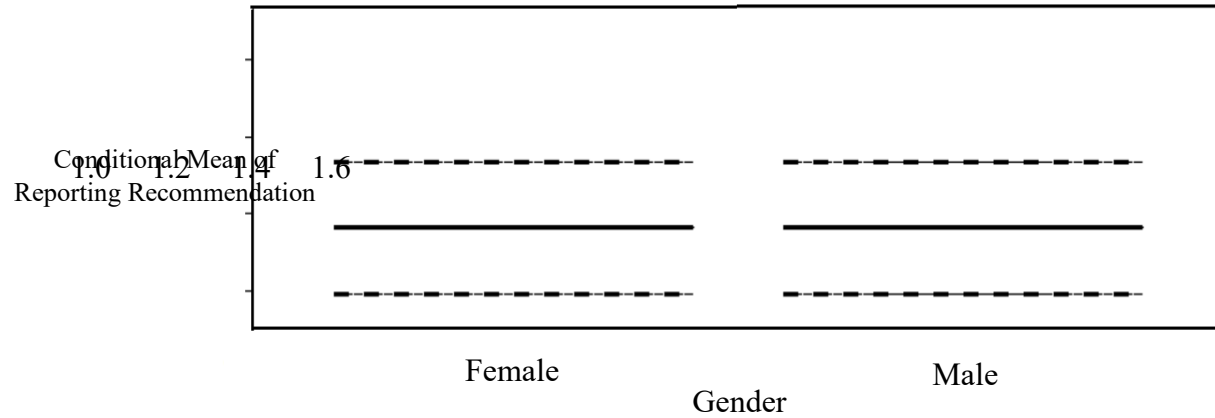


Figure 27. Gender differences in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

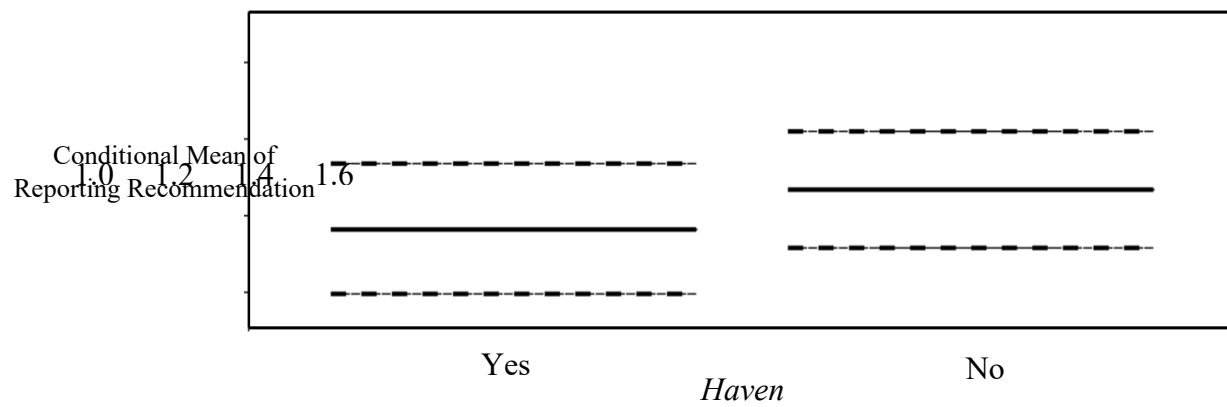


Figure 28. *Haven* training differences in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

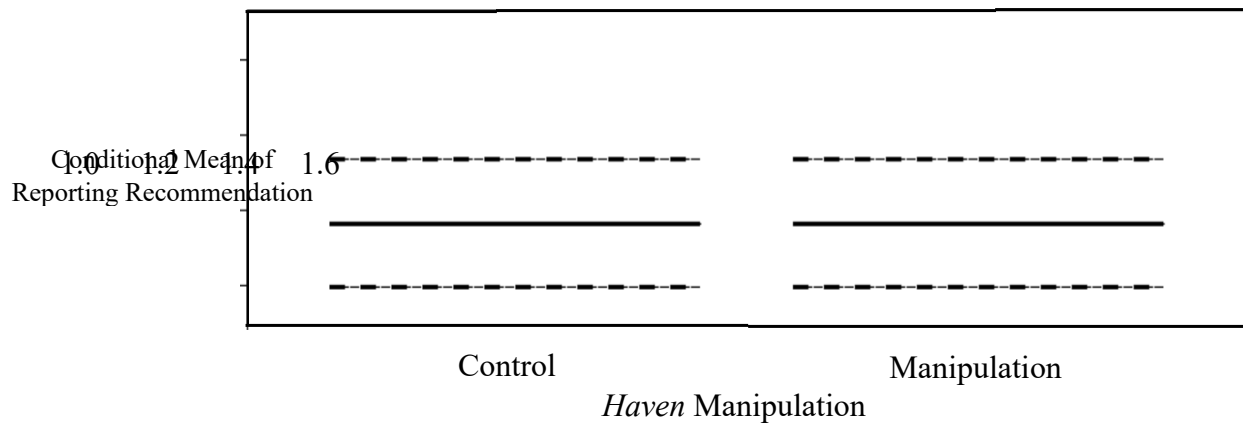


Figure 29. *Haven* manipulation differences in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

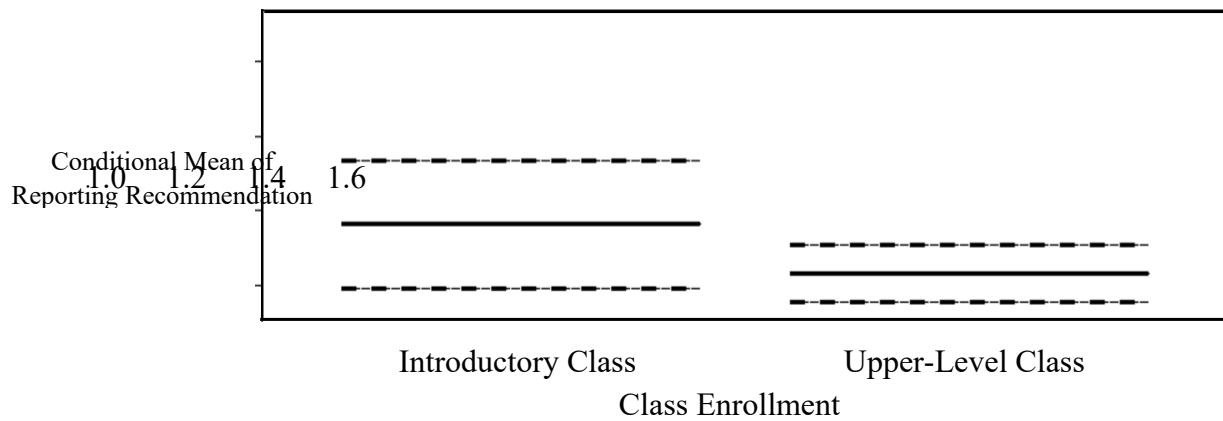


Figure 30. Class enrollment differences in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

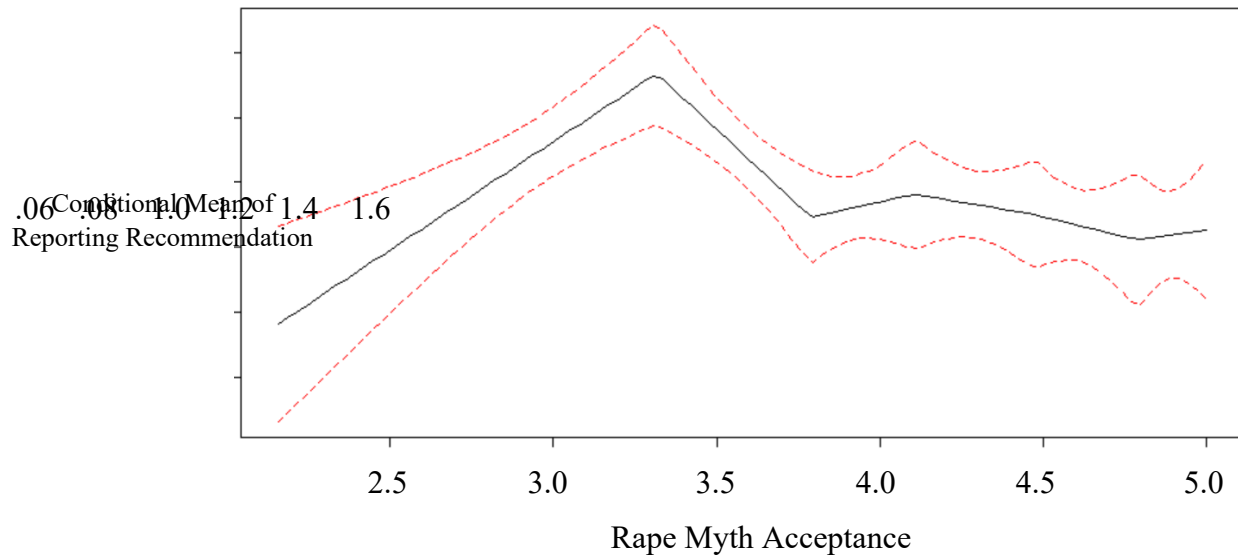


Figure 31. Rape myth acceptance and stranger vignette reporting recommendation.

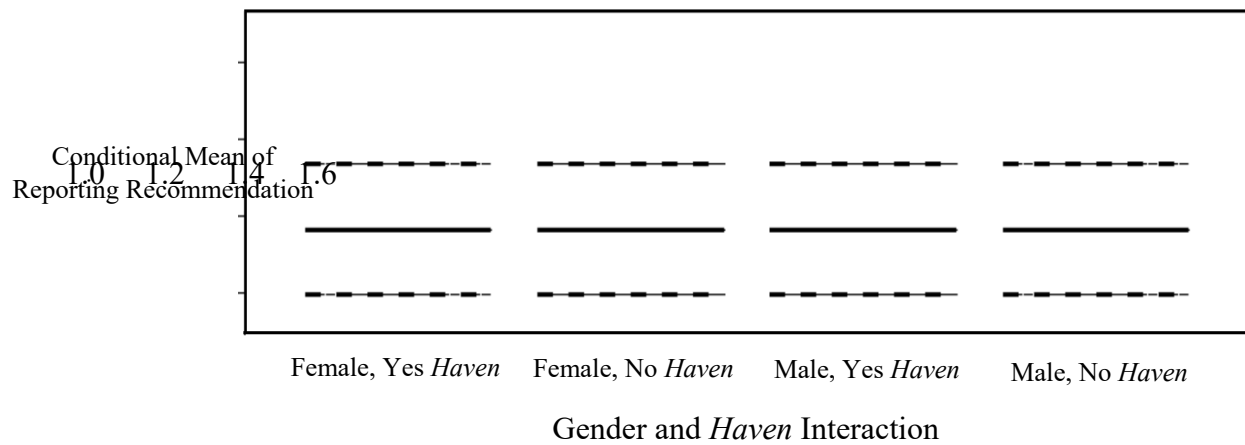


Figure 32. Gender and *Haven* training interaction in response to stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

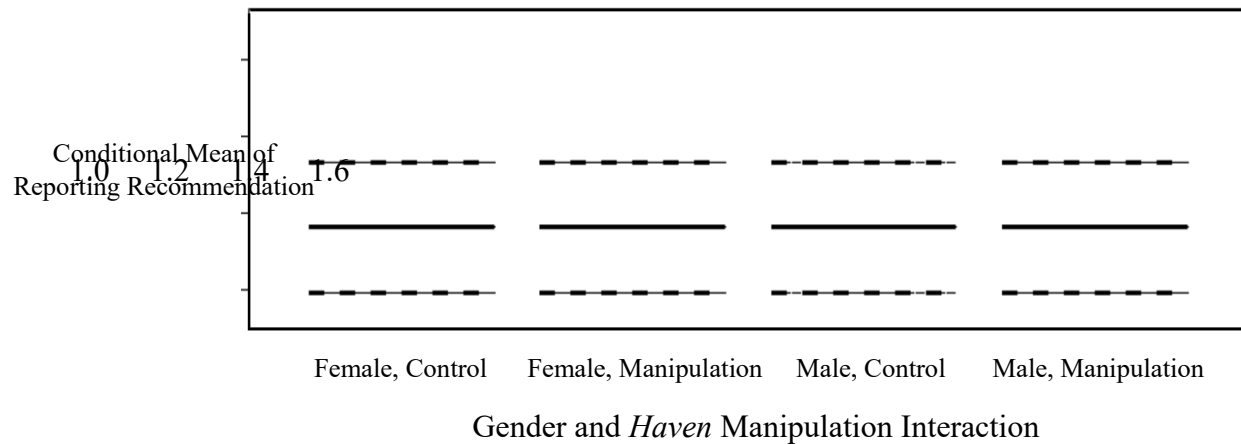


Figure 33. Gender and *Haven* manipulation interaction in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

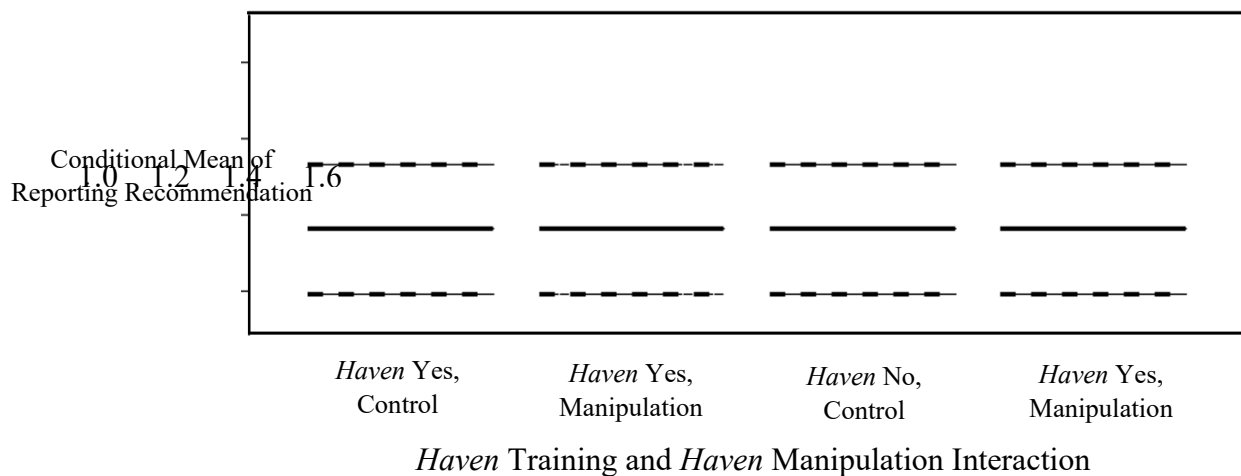


Figure 34. *Haven* training and *Haven* manipulation interaction in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

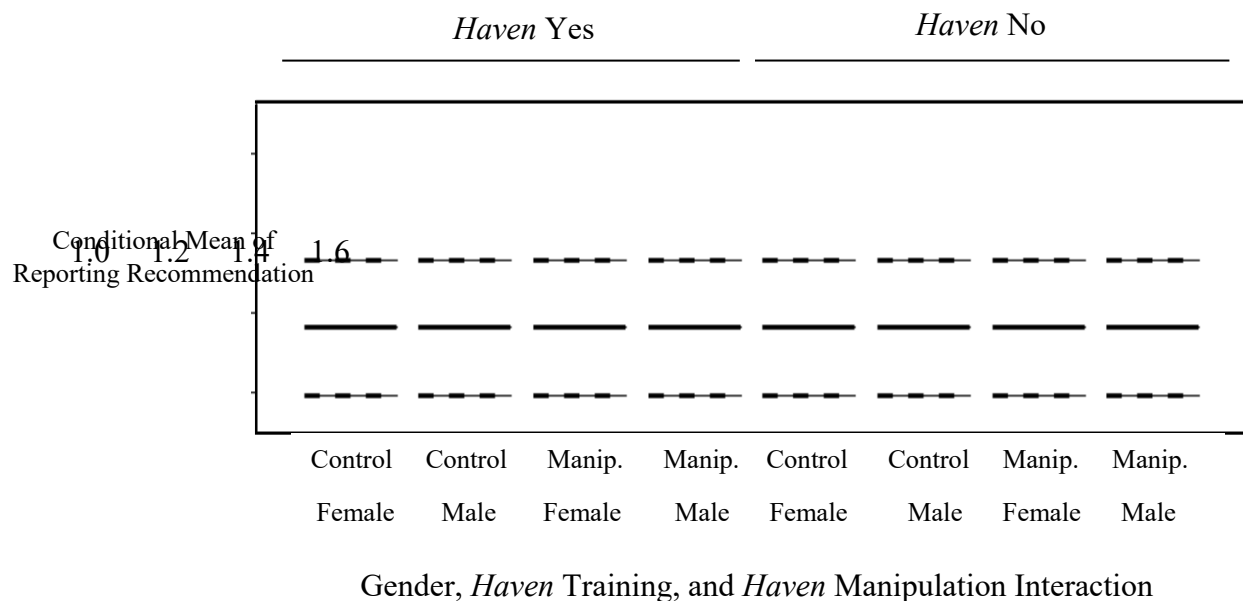


Figure 35. Gender, *Haven* Training, and *Haven* Manipulation Interaction in stranger vignette reporting recommendation, displayed by mean reporting recommendation assigned by group, with dashed lines representing 95% confidence intervals.

APPENDICES

Appendix A. *Haven* Summary

There are several forms of violence that many women face – stalking, sexual harassment, abuse, and sexual assault, including rape. While an individual of any gender can perpetrate this violence or be a victim of it, women are more likely to be victimized and men are more likely to perpetrate these acts. Moreover, women in college are at a higher risk than members of the general population to be sexually assaulted, and some experts suggest that bystander interventions are important for preventing such acts of aggression. An intervention could be calling the police or simply giving a friend an excuse to leave a situation in which they are feeling pressured or unsafe. While situations can vary greatly, the key issue is whether or not individuals consent to sexual behavior. Without consent from both partners, a sexual act is considered sexual violence. Consent is an informed, enthusiastic decision to engage in a sexual act. If a person has consumed a large amount of alcohol or is high, they are unable to give full informed consent. This is because their decision-making capabilities have been reduced. Likewise, a person cannot give consent if they have lost consciousness. This is because consent is not defined as a lack of a “no” but rather the presence of a “yes.” If you are not sure that you have full consent from your partner, you should not continue until you are sure. Verbally checking with your partner is the clearest way to establish consent.

Appendix B. Control Paragraph for *Haven* Summary

While moving from high school to college is an exciting experience, the transition can be stressful. For many young adults this move marks the first time they had lived apart from their parents, offering many additional freedoms as well as new responsibilities. College freshman typically have significantly less parental oversight than do high school seniors and thus are expected to be accountable to themselves for completing work on time and keeping up with basic daily tasks. Many college students also choose to work while in school, which creates an even stronger need for good time management skills. Additionally, sources of social support often change during early college because students spend less time with high school friends and family—instead making new connections at school. Being aware of campus resources is important for new students, as most colleges offer free services such as tutoring and counseling. Faculty members can also provide guidance for academic success. There are also many resources for engaging socially, such as student-run organizations based on academic or leisure interests, as well as religious or political beliefs. While most college offer a wide array of services, many students are not aware of all of the resources their institution provides. One can become familiar with campus resources through attending events designed for new students or simply by accessing the university’s website.

Appendix C. Vignettes and Responses

Appendix C-1. Stranger Rape Vignette. A nineteen year-old college sophomore, decided to go for a walk in her neighborhood on a Friday night. While she was walking, a male nineteen year-old college sophomore who she did not know, approached her from behind and covered her mouth with his hand. She tried to scream but her voice was muffled. He pulled her into a poorly-lit area and proceeded to remove her clothing. He proceeded to have vaginal intercourse with her and he quickly left afterwards.

1. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the female college student have for the sexual encounter?

2. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the male college student have for the sexual encounter?

3. Please choose one of the following labels to describe the sexual encounter:

Consensual Sex Rape Sexual Assault

4. What do you believe the female college student should do after this event?

She should

definitely report it

to law enforcement

She should

definitely not report

it to law enforcement

1

2

3

4

5

6

7

Appendix C-2. Acquaintance Rape Vignette. A nineteen year-old college sophomore, decided to go to a party near her college campus on a Friday night. She did

not consume alcohol or illicit drugs at the party, instead choosing to dance and talk with her friends. She and a male friend of hers, another nineteen year-old college sophomore, decided to separate from the rest of the group as they had been flirting. Once they were alone, they began to kiss. He continued to make sexual advances towards her, although she told him she was not interested in continuing. Nevertheless, he removed her clothing and proceeded to have vaginal intercourse with her.

1. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the female college student have for the sexual encounter?

2. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the male college student have for the sexual encounter?

3. Please choose one of the following labels to describe the sexual encounter:

Consensual Sex Rape Sexual Assault

4. What do you believe the female college student should do after this event?

She should

definitely report it

to law enforcement

She should

definitely not report

it to law enforcement

1 2 3 4 5 6 7

Appendix C-3. Acquaintance Rape with Intoxicated Victim Vignette. A

nineteen year-old female college sophomore, decided to go to a party near her college campus on a Friday night. While at the party, she had a couple of alcoholic drinks while

talking with some friends. Throughout the night she decided to drink more until she began to feel dizzy and her speech was slurred. She and a male friend of hers, another nineteen year-old college sophomore, decided to separate from the rest of the group as they had been flirting. Once they were alone, they began to kiss. He continued to make sexual advances towards her, although she told him she was not interested in continuing. Nevertheless, he removed her clothing and proceeded to have vaginal intercourse with her.

1. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the female college student have for the sexual encounter?

2. How much responsibility (from 0% - 100%, with 100% representing total responsibility) does the male college student have for the sexual encounter?

3. Please choose one of the following labels to describe the sexual encounter:

Consensual Sex Rape Sexual Assault

4. What do you believe the female college student should do after this event?

She should
definitely report it
to law enforcement

She should
definitely not report
it to law enforcement

1 2 3 4 5 6 7

Appendix D. The Updated Illinois Rape Myth Acceptance Scale

Participants were asked to provide a score for each statement on a Likert-type scale from 1 (Strongly Agree) to 5 (Strongly Disagree) (McMahon & Farmer, 2002).

1. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.
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 goes 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 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 have emotional problems.

19. Girls who are caught cheating on their boyfriends sometimes claim it was rape.

Appendix E. Demographics

1. Gender (select one) FEMALE MALE TRANSGENDER

GENDERQUEER

2. What is your age? _____

3. What is your occupation? _____

4. How many children do you have, if any? _____

How many of your children are under age 18? _____

5. Which of the following statements best describes your highest educational achievement?

_____ Some high school

_____ High school graduate

_____ Trade school

_____ Some college

_____ College graduate

_____ Some graduate school

_____ Graduate degree

6. What is your ethnicity? (circle one)

Hispanic

Non-Hispanic

7. What is your race?

Native American/Alaska Native

Asian

African-American

Native Hawaiian/Pacific Islander

White

8. What is your current marital status?

Single

Married

Divorced

Widowed

9. Which of the following best describes your income before taxes?

___ Less than 20,000 ___ 20,000-30,000

___ 30,000-45,000 ___ 45,000-60,000

___ 60,000-75,000 ___ More than 75,000

10. Which of these opinions best represents your views?

1	2	3	4	5	6	7
Extremely Liberal		Slightly Moderate		Slightly Conservative		Extremely Conservative
Liberal		Liberal		Conservative		Conservative

11. Which of the following best characterizes your religious affiliation?

Agnostic

Atheist

Buddhist

Christian

Hindu

Jewish

Muslim

Pagan

Other

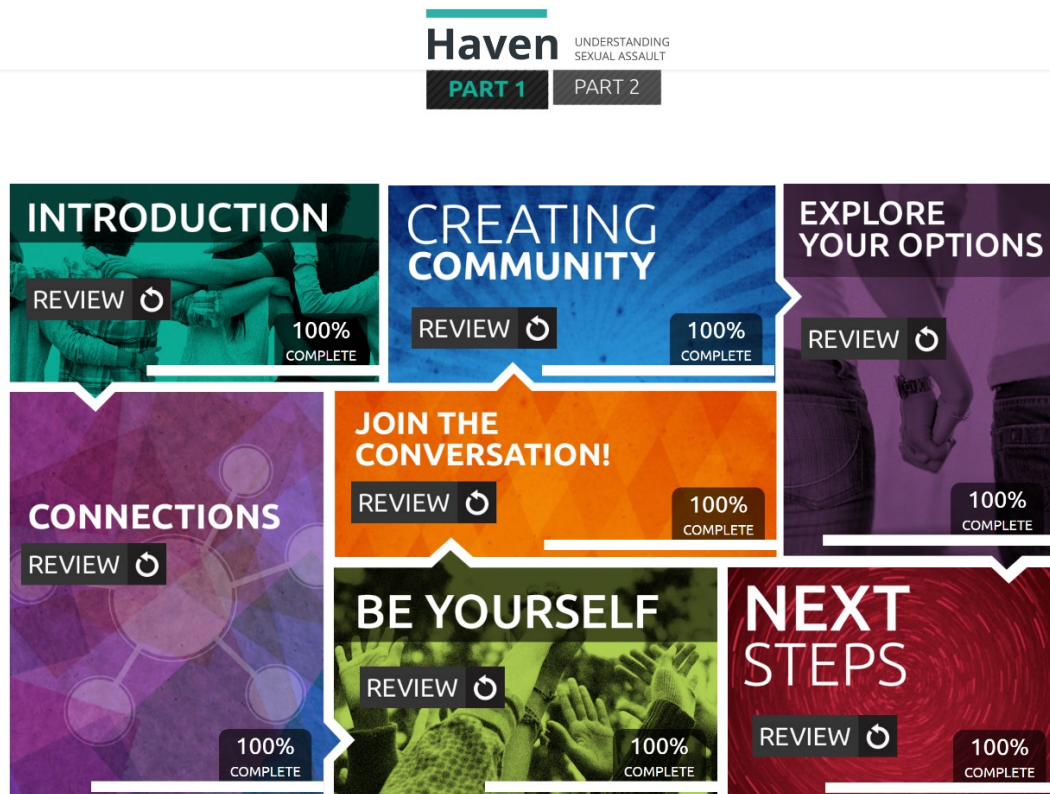
12. Have you completed the Green Dot bystander intervention program?

Yes

No

13. Have you completed part one of the *Haven* (Sexual Assault Awareness Training) that is available on My Missouri State?

The training web page looked like this:



Yes

No