

Introduction

Military environments have been identified as high-risk communities for sexual assault to occur, at least in part due to the combination of stress (Eekhout, Geuze, Vermetten, 2016; Shannon, Bradley, Heckert, 1999) and the high prevalence of alcohol use (Fuertes & Hoffman, 2016; Wessely et al., 2007). Historically, the military is a masculine institution that has endorsed cultural attitudes traditionally socialized to men (Weitz, 2015), making these environments particularly vulnerable because rape and sexual assault are especially prevalent in cultures where men's sexual aggression is not only tolerated but also ignored (Foubert, & Masin, 2012).

Although the Department of Defense has increased knowledge on how to report instances of assault, there has not been an increase in service members doing so, with both active duty and veteran servicewomen indicating that they are too embarrassed to report sexual assault because it could detrimentally affect their career (Mengeling, Booth, Torner, & Sadler, 2014). The present study uses a multiple-segment factorial vignette to empirically examine the extent to which rape myth acceptance varies according to four key contextual factors—race, the victim-perpetrator relationship, resistance strategies, and the decision to report—among those in embedded within military cultures. Additionally, chi-square tests were conducted to examine reporting mechanisms used by respondents when they indicated an assault had occurred, depending on respondent gender and hypothetical friendship with either the perpetrator or survivor in the vignette

Participants

A sample of 420 active duty military personnel were recruited with the assistance of the online sample administrators at Qualtrics. The age of respondents in the military sample range from 17 to 61, with a mean age of 29.2. The active duty military reports that over 40% of active duty members are 25 years or younger (Department of Defense, 2015) making the present sample slightly older. The majority of respondents were White (66.2%) and male (59.0%). Respondents' appear to be more educated than what is typically found in the active duty population (Department of Defense, 2015) in that more respondents in our sample obtained a college degree or higher (32.2%) whereas others only completed a high school diploma or GED (22.1%). The most common religious affiliation was Mainline Protestant (24.5%). Many respondents were either not at all religious (34.8%) or somewhat religious (30.5%).

Design & Procedures

The multiple-segment factorial vignette approach is particularly useful for assessing how respondents' judgments, attitudes, beliefs, or opinions change (a) across vignette segments within

respondents as the story evolves or more information is revealed, and (b) within vignette segments across respondents according to the randomly manipulated variables (Ganong & Coleman, 2006). The two-segment vignette designed for this study described a fictional situation where an assault occurred. The vignette consisted of two segments, or paragraphs, followed by a series of questions. Respondents were randomly presented a version of the vignette that varied according to the manipulation of five independent design variables embedded within the vignette: (a) race of the victim, (b) race of the perpetrator, (c) victim—perpetrator relationships, (d) resistance strategies, and (e) the decision to report.

Segment 1. The first segment indicates that the victim is experiencing unwanted sexual contact or behavior without her explicit consent. This segment randomly manipulated the relationship between the victim and perpetrator, the race of both the victim and the perpetrator, and the victim's resistance strategy. Specifically, respondents will read the following (the randomly manipulated independent variables are italicized):

Anthony [pictorially depicted as a *Black/White* male] and Erica [pictorially depicted as a *Black/White* female] are *married/*

Method

friends/strangers/dating and are at a mutual friend's house party, having a good time. After having some drinks together, Erica ends up in a bedroom and passes out on the bed because she is drunk. Anthony finds Erica on the bed and has sexual intercourse with her, during which Erica wakes up and kicks *Anthony/runs away from Anthony/yells at Anthony/pleads with Anthony to stop.*

After reading the scenario, participants were asked three closed-ended questions: (1) "Do you think Erica *has or has not* been raped?" (2) "Do you think Erica is *not at all responsible, somewhat responsible, mostly responsible, or completely responsible* for this experience?" and (3) "Do you think Erica *should or should not* tell anybody about her experience?" Then participants were asked to briefly explain their answers to these questions in their own words. Participants who selected that Erica has been raped were then asked to identify what reporting mechanism they would utilize to report Erica's experience depending on if they were friends with Anthony or Erica.

Segment 2. The second vignette segment indicates whether the victim decided to report the rape to the police, a friend, or not at all. Specifically, respondents will read:

After Erica gets home the following morning, she is visibly distraught about her experience the night before. Jill decides to *report her experience to the police/tell a friend about her experience/tell no one about her experience.*

After reading this, respondents were asked the same questions again: (1) "Do you think Erica *has or has not* been raped?" (2) "Do you think Erica is not at all responsible, somewhat responsible, mostly responsible, or completely responsible for this experience?" and (3) "Do you think Erica *should or should not* have told anybody about her experience?" Then, participants were asked to briefly explain their answers to these questions in their own words.

Analytic Approach

The vignette. The three closed-ended questions—whether Erica was raped or not, whether Erica has any responsibility for the experience, and whether Erica should report the experience or not—served as the dependent variables. The question focused on Erica's degree of responsibility for the experience was collapsed from the four response options into a binary variable of *not at all responsible and at least some responsibility* because there

was low variability in responses for this particular question. In fact, preliminary descriptive analyses indicated low variability in responses for each of the closed-ended questions except for the question assessing the amount of responsibility placed upon Erica. Thus, two binary logistic regression models were tested to predict whether Erica was responsible for her experience or not based on the independent design variables and respondent characteristics (see Tables 1 & 2). As displayed in Table 3, chi-square tests were conducted to examine responses for reporting depending on respondent gender and hypothetical friendship with either character in the vignette.

Open-ended rationales. Respondents' open-ended rationales for responses following the closed-ended questions were coded inductively, meaning the codes emerged from the responses provided by respondents (Hsieh & Shannon, 2005). The unit of analysis was a single rationale. One-third of open-ended data were coded by a second coder to assess inter-rater reliability, which resulted in a considerable amount of agreement ($k = .83$) between the two coders; this amount of agreement was classified as *almost perfect* by Landis and Koch (1977) and as *excellent* by Fleiss (1981).

Contextual Variables

Race

Individuals in racial minority groups may experience different outcomes after experiencing sexual assault because of differing socioeconomic and social factors (Wadsworth & Records, 2013). Both White and Black victims are blamed more when raped by a perpetrator of another race than their own race (George & Martinez, 2002), and Black victims tend to be judged more harshly than White victims when the perceived respectability of the victim is low (Dupuis & Clay, 2013). Dupuis and Clay also found that Whites were more likely than Blacks to be perceived as guilty of rape when the victim was Black.

Race also plays a role in how individuals recover from an unwanted sexual experience (Sigurvinsdottir & Ullman, 2015); the recovery process for most individuals who experience sexual assault requires psychosocial adjustment, but racial and sexual minorities tend to have more deleterious effects after experiencing sexual assault (Sigurvinsdottir & Ullman, 2015). Black women are also less likely to report sexual assault than White women, perhaps due to less perceived social support (George & Martinez, 2002) or a distrust of the healthcare system (Wadsworth & Records, 2013). All of these factors contribute to secondary victimization of women by both the authorities and their peers. Although there are compelling arguments that attempt to understand the legal outcomes associated with the intersection of sexual violence and race (Dupuis & Clay, 2013), racial minorities and differences are underrepresented in academic literature as is relates to the victim-perpetrator relationship or the experiences of Black women who have been sexually assaulted (Wadsworth & Records, 2013).

Victim—Perpetrator Relationship

Rape myths concerning the perceived relationship between the victim and the perpetrator can be an indicator of whether an assault will be reported (Maxwell & Scott, 2014; Simonson & Subich, 1999). For example, marital rape is perceived to be less severe, less violent, less psychologically damaging, and less of a violation of the victim than date, acquaintance, and stranger rape (Simonson & Subich, 1999). Again, the schematic representations held by society influence the perception of sexual assault pertaining to who can and cannot be a rapist, and therefore individuals who are assaulted by people close to them may receive less support in the aftermath of a sexual assault experience.

Resistance Strategies

Despite research that indicates active resistance from women has a greater potential to keep the assault from escalating, only about 20% to 25% of women who are assaulted report actively utilizing resistance strategies (Edwards et al., 2014). Resistance strategies include, but are not limited to, forceful physical resistance (e.g., hitting), nonforceful physical resistance (e.g., running away), forceful verbal resistance (e.g., yelling), and nonforceful verbal resistance (e.g., pleading; Hollander & Rodger, 2014). Wong and Belemba (2016) suggested that individuals who resist in instances of sexual assault are more likely than those who do not resist to sustain physical injuries in addition to the assault. Individuals who do not resist, however, are more likely to blame themselves for the assault and are less likely to report the assault (Wong & Belemba,

2016). Police officers look for strong evidence to consider a reported rape legitimate, which can include evidence of obvious violence or personal injury, physical evidence such as DNA, or the presence of a threat, such as with a deadly weapon, during the assault (Venema, 2014). Although there is evidence that police look for physical proof of injury after an assault and the media rarely talks about successful resistance strategies utilized by women during an assault, there has not been an attempt to understand whether the general populations' perception of sexual assault varies depending on the resistance strategies utilized.

Decision to Report

Individuals who report sexual assault perpetrated by an intimate partner, those who wait to report to the police, and those who appear to be intoxicated are more likely to be perceived as making a false allegation of sexual assault (Ferguson & Malouf, 2016; Lonsway, 2010). Conversely, individuals who report assaults quickly, report being assaulted by a stranger, and who have physical injuries are more likely to be believed (Ferguson & Malouf, 2016). Many instances of rape fall within the category of "difficult to prosecute" cases when there is a lack of physical injury and when the accused is able to say the victim consented (Lisak & Miller, 2010, p. 81). Although the trauma literature indicates that inconsistencies and omissions in individuals' narratives are common after experiencing a traumatic event, many police investigators view these inconsistencies as indicators of a possible false allegation (Lonsway, 2010). In addition to not being believed, many women who choose to report their assaults experience revictimization by both the authorities and their peers.

One of the most important determinants of whether a sexual assault is reported may be the social norms surrounding sex and sexual assault. Social desirability bias postulates that differences in gender norms create differing expectations about what is socially acceptable for males and females (Kelly, Soler-Hampejsek, Mensch, Hewett, 2013). These gender norms and roles become even more salient when individuals are asked to report on potentially sensitive topics due to the tendency for individuals to underreport stigmatized behaviors and overreport normative behaviors (Kelly et al., 2013). In addition to the embarrassment and shame associated with being involved in a stigmatized experience, there is an element of self-judgment that occurs when one is asked to admit involvement in a stigmatized experience, regardless of circumstance.

Perpetrator narratives, however, describe a pattern of predatory behavior that begins well in advance of the actual assault (Lonsway, 2010). Perpetrators typically attack individuals within their social networks and refrain from violence that would leave evidence of personal injury in an attempt to create a situation in which the victim feels they have less credibility to report, and that may be perceived by others to be a false report (Lisak & Miller, 2016). This information may be useful in addressing "grey areas," that often characterize sexual assault (e.g., victim did not communicate consent clearly enough), but are still absent from the relevant literature. Therefore, obtaining knowledge that focuses on combatting rape myths also includes understanding the distinctions law enforcement, healthcare providers, and lay individuals make between sexual assaults deemed to be "real" and those deemed to be "false."

Results

Is Erica Responsible for Her Experience?

Segment 1. Table 1 presents the results of binary logistic regression analyses for predicting responses to whether Erica holds any responsibility for the experience following Segment 1. Race was the only randomly manipulated vignette variable that statistically affected responses. Specifically, those for whom Erica and Anthony were presented as Whites were about 2.4 times more likely to attribute some responsibility to Erica than were those for whom both Erica and Anthony were presented as Black. Similarly, those for whom Anthony and Erica were both presented as White were more about 3.8 times more likely to place some responsibility on Erica than were those for whom Anthony was presented as Black and Erika as White. Taken together, these findings indicate that more responsibility was attributed to Black perpetrators than to White perpetrators, and that this difference was more pronounced when the victim was White than when she was Black. The "she asked for it" subscale of the IRMAS-R was a consistent statistical predictor: Each unit increase in score on this subscale corresponded with about a 56% increase in the likelihood of placing at least some responsibility on Erica. The odds of a respondent indicating that Erica held at least some responsibility were increased by 1.5% when respondents scored an additional point on the IRMAS-R subscale "she asked for it." Responses did not vary according to the victim-perpetrator relationship or the resistance strategy utilized by Erica.

Segment 2. Table 2 presents the results of binary logistic regression analyses for predicting responses to whether Erica holds any responsibility for the experience following Segment 2. The attribution of at least some responsibility to Erica again depended upon the races of the vignette characters. In this case, however, those who read about an interracial relationship between Erica and Anthony were about one third as likely to report that Erica had at least some responsibility for the experience than when Anthony and Erica were presented as both White and Black, therefore indicating slightly more attribution of responsibility when the victim-perpetrator relationship is interracial than when intraracial. The relationship between Anthony and Erica had no notable impact on the attribution of responsibility. Again, the "she asked for it" subscale of the IRMAS-R was a statistical predictor, wherein respondents were 58% more likely to attribute responsibility to Erica when they scored an additional point on this subscale.

Influence of Respondent Gender and Hypothetical Friendships

Chi-square tests were conducted to examine the differences in military members' responses of which reporting mechanism they would use to report Erica's experience depending on if they were friends with Anthony or Erica (see Table 4). Results demonstrated that respondent gender as well as respondents' hypothetical friendship with Erica or Anthony did have an impact on the likelihood of reporting the experience to the police, a commanding officer, a supervisor, a mental health professional, or taking another approach. Specifically, male respondents who were randomly assigned as a friend of Erica were more likely than female respondents who were friends with either Erica or Anthony and male respondents who were friends with Anthony to report to a mental health professional ($\chi^2 (3, N = 416) = 8.67, p = .034$) or to take another action ($\chi^2 (3, N = 416) = 8.67, p = .034$). Male respondents who were randomly assigned as a friend of Anthony were more likely than males who were friends with Erica and female respondents who were friends with Erica or Anthony to report to the police ($\chi^2 (3, N = 416) = 19.60, p < .001$), report to a commanding officer ($\chi^2 (3, N = 416) = 7.80, p = .050$), or report to a supervisor ($\chi^2 (3, N = 416) = 15.49, p = .001$).

Table 1
Binary Logistic Regression Predicting Whether Erica is Responsible for Her Experience (Segment 1)

Predictor	Military (n = 420) At least some responsibility = 28.1%				
	B	SE	p	OR	95% CI
Vignette variables					
Relationship^(strangers)					
Dating	0.33	0.44	.453	1.39	[0.59, 3.28]
Friends	0.07	0.42	.878	1.07	[0.46, 2.45]
Married	0.14	0.44	.758	1.15	[0.48, 2.72]
Race^(White male/White female)					
White male/Black female	-0.77	0.43	.075	0.46	[0.20, 1.08]
Black male/Black female	-0.87	0.42	.041	0.42	[0.18, 0.97]
Black male/White female	-1.34	0.47	.004	0.26	[0.10, 0.65]
Resistance strategy^(from away)					
Kicks	0.05	0.45	.907	1.05	[0.44, 2.53]
Pleads	-0.11	0.44	.802	0.90	[0.38, 2.13]
Yells	0.04	0.47	.940	1.04	[0.44, 2.59]
Respondent characteristics					
Female ^(male)	-0.08	0.36	.824	0.92	[0.46, 1.86]
Sexual Victimization Experience ^(none)	-0.22	0.33	.508	0.80	[0.42, 1.53]
Race or ethnicity^(White, non-Hispanic)					
Asian	0.24	0.92	.793	1.27	[0.21, 7.78]
Black/non-Hispanic	-0.30	0.53	.565	0.74	[0.26, 2.07]
Hispanic	-0.10	0.57	.867	0.91	[0.30, 2.79]
Alaskan, Hawaiian	-0.14	0.97	.881	0.87	[0.13, 5.76]
Mixed	0.49	0.61	.420	1.63	[0.50, 5.37]
Religion^(Atheist)					
Catholic	0.38	0.79	.630	1.46	[0.31, 6.90]
Mainline Protestant	0.54	0.77	.485	1.71	[0.38, 7.74]
Islamic	NA				
Jewish	NA				
Other	0.77	0.74	.298	2.17	[0.51, 9.28]
Evangelical Protestant	0.31	0.82	.710	1.36	[0.27, 6.76]
Agnostic	0.43	0.79	.587	1.53	[0.33, 7.14]
Religiosity	0.02	0.19	.901	1.02	[0.71, 1.48]
Education	-0.10	0.07	.180	0.91	[0.79, 1.04]
Age	0.01	0.02	.658	1.01	[0.98, 1.04]
RMAS subscale					
She asked for it	0.44	0.06	<.001	1.56	[1.39, 1.74]
He didn't mean to	-0.04	0.05	.378	0.96	[0.88, 1.05]
It wasn't really rape	-0.05	0.07	.473	0.95	[0.84, 1.08]
She lied	-0.07	0.05	.148	0.94	[0.85, 1.02]

Note. Reference category in parentheses. CI = confidence interval for odds ratio (OR).

Table 2
Binary Logistic Regression Predicting Whether Erica is Responsible for Her Experience (Segment 2)

Predictor	Military sample (n = 420) At Least Some Responsibility = 26.9%				
	B	SE	p	OR	95% CI
Vignette variables					
Relationship^(strangers)					
Dating	-0.17	0.45	.709	0.85	[0.35, 2.03]
Friends	0.12	0.42	.778	1.13	[0.50, 2.55]
Married	0.01	0.44	.977	1.01	[0.43, 2.38]
Race^(White male/White female)					
White male/Black female	-1.09	0.45	.015	0.34	[0.14, 0.81]
Black male/Black female	-0.76	0.42	.074	0.47	[0.20, 1.08]
Black male/White female	-1.06	0.46	.021	0.35	[0.14, 0.85]
Resistance strategy^(from away)					
Kicks	0.29	0.45	.516	1.34	[0.55, 3.24]
Pleads	-0.08	0.45	.852	0.92	[0.38, 2.22]
Yells	0.30	0.47	.526	1.35	[0.54, 3.37]
Report^(tell none)					
Report to the police	0.37	0.36	.303	1.45	[0.72, 2.93]
Tell a friend	-0.33	0.39	.396	0.72	[0.33, 1.55]
Respondent characteristics					
Female ^(male)	-0.18	0.36	.608	0.83	[0.41, 1.68]
Sexual Victimization Experience ^(none)	-0.36	0.33	.267	0.69	[0.37, 1.32]
Race or ethnicity^(White, non-Hispanic)					
Asian	-1.15	0.93	.218	0.32	[0.05, 1.98]
Black/non-Hispanic	-0.18	0.51	.723	0.83	[0.31, 2.28]
Hispanic	-0.73	0.61	.230	0.48	[0.15, 1.59]
Alaskan, Hawaiian	-1.17	1.08	.278	0.31	[0.04, 2.58]
Mixed	0.21	0.60	.726	1.24	[0.38, 4.03]
Religion^(Atheist)					
Catholic	-0.26	0.73	.726	0.77	[0.18, 3.25]
Mainline Protestant	-0.36	0.72	.617	0.70	[0.17, 2.87]
Islamic	-5.77	1.95	.003	0.00	[0.00, 0.14]
Jewish	NA				
Other	0.23	0.68	.734	1.26	[0.33, 4.83]
Evangelical Protestant	-0.46	0.76	.550	0.63	[0.14, 2.83]
Agnostic	-0.24	0.71	.737	0.79	[0.19, 3.19]
Religiosity	0.08	0.19	.690	1.08	[0.74, 1.58]
Education	-0.10	0.07	.174	0.91	[0.79, 1.04]
Age	0.00	0.02	.911	1.00	[0.97, 1.03]
RMAS subscale					
She asked for it	0.46	0.06	<.001	1.58	[1.41, 1.77]
He didn't mean to	-0.07	0.05	.122	0.93	[0.85, 1.02]
It wasn't really rape	-0.11	0.07	.088	0.89	[0.78, 1.02]
She lied	-0.06	0.05	.208	0.94	[0.86, 1.03]

Note. Reference category in parentheses. CI = confidence interval for odds ratio (OR).

Table 3
Percentage of Responses for Reporting Depending on Respondent Gender and If Respondent was Friend with Erica or Anthony

Rationales	Female respondent, friend of Erica (n = 81)		Male respondent, friend of Erica (n = 137)		Female respondent, friend of Anthony (n = 90)		Male respondent, friend of Anthony (n = 108)		$\chi^2 (3)$	ϕ	p
	n	%	n	%	n	%	n	%			
Report to Judge Advocate General (JAG)	9	11.1	22	16.1	15	16.7	26	24.1	5.80	.12	.122
Report to police	19	23.5	61	44.5	23	25.6	51	47.2	19.60	.22	<.001
Report to a commanding officer	15	19.0	40	29.2	19	21.1	37	34.3	7.80	.14	.050
Report to a supervisor	14	17.0	36	26.3	29	32.2	46	42.6	15.49	.19	.001
Tell a friend	2	2.5	8	5.8	6	6.7	7	6.5	1.89	.07	.596
Tell a mental health professional	9	11.1	28	20.4	9	10.0	10	9.3	8.67	.14	.034
Keep quiet to protect my friend	9	11.1	9	6.6	4	4.4	4	3.7	4.99	.11	.173
Other	9	11.1	28	20.4	9	10.0	10	9.3	8.67	.14	.034

Note. Genderqueer eliminated from analysis because of small sample size (n = 4).

Conclusion

As hypothesized, the race of the victim, the race of the perpetrator, and the existence of interracial victim-perpetrator relationships influenced respondents' tendency to attribute responsibility to Erica. Indeed, interracial relationships are often judged less favorably than intraracial relationships; and in the context of sexual assault, interracial relationships oftentimes incite more victim blame and less perpetrator responsibility, potentially indicating an underlying racist bias that activates in the presence of interracial sexual relationships (George & Martinez, 2002). This