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The Relationship Between Undergraduates' Rape Empathy and Their Self-Reported
Likelihood of Raping, Sexual Experiences, and Demographics

Submitted by Kerstin M. Grune
May 2012

MSW Clinical Research Paper

The Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social work research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by a research committee and the university Institutional Review Board, implement the project, and publicly present their findings. This project is neither a Master's thesis nor a dissertation.

School of Social Work
St. Catherine University & University of St. Thomas
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Abstract

The present study explored the need for empathy-based rape prevention programs on college campuses by investigating the following research question: What is the relationship between undergraduates' empathy for rape victims and their self-reported likelihood of raping, the gender of the rape victim, their past sexual experiences, and their demographics? The design of the present study was a cross-sectional, quantitative study in which participants completed an online questionnaire.

The present study found that participants at low risk of forcing sex empathized more with rape victims than those at high risk for forcing sex; however, there was not a significant difference between participants who were at low risk and those at high risk of raping with regard to their rape empathy. Additionally, the results suggest that undergraduates may empathize more with rape victims of their own gender. Furthermore, as the severity of participants' sexual perpetration experiences increased, their empathy for rape victims decreased significantly; however, there was not a significant relationship between participants' sexual victimization experiences and their rape empathy. Finally, the present study found that female participants empathize more with rape victims than male participants; however, there were not many statistically significant differences between the other demographic groups on their rape empathy.

Future social work research should continue exploring undergraduates' rape empathy. Additionally, future social work practice should incorporate rape prevention programs that focus on increasing participants' empathy for both male and female rape victims, as the results of this study and of other studies suggest that men and women may empathize more with rape victims of their own gender.

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The Relationship Between Undergraduates' Rape Empathy and Their Self-Reported Likelihood of Raping, Sexual Experiences, and Demographics

A recent national survey conducted by the National Institute of Justice found that over the course of a college career, one fifth to one quarter of college women may experience being the victim of a completed or attempted rape (Fisher, Cullen, & Turner, 2000). Additionally, rates of sexual victimization among college women are approximately three times greater than rates among women in the general population (Gidycz, Hanson, & Layman, 1995; Koss, Gidycz, & Wisniewski, 1987). Rape is often defined as “an event that occurs without the victim's consent and involves the use of threat or force to penetrate the victim's vagina or anus by penis, tongue, fingers, or object, or the victim's mouth by penis” (Tjaden & Thoennes, 2000, p. 5). Additionally, rape is forced, manipulated, or coerced sexual contact by a stranger, friend, or acquaintance (Clark University, 2012). Between 7% and 15% of college men acknowledge committing an act that meets the legal definition of rape (Koss et al., 1987; Muehlenhard & Linton, 1987; Rapaport & Burkhart, 1984). There are also instances in which females act as perpetrators and males are victims of sexual violence (Foubert & Marriott, 1997; Osman, 2011). Such statistics reveal that college is a high-risk period for sexual assault, and universities must address this issue in order to decrease future rates of victimization (Foubert & Newberry, 2006; Sorenson, Stein, Siegel, Golding, & Burnam, 1987).

The psychological and physical effects of rape on the victim are often quite debilitating, and these effects can persist without proper treatment and support. Rape victims often suffer from symptoms related to post-traumatic stress disorder (PTSD), such as repeatedly re-experiencing the rape, attempting to avoid stimuli associated with

the rape, and experiencing increased physiological arousal (Marriage and Family Encyclopedia, 2010). Moreover, rape victims often suffer from post-assault depression, feelings of betrayal and humiliation, problems with trust and intimacy, guilt, sexual difficulties, and lowered self-esteem (Muehlenhard, Goggins, Jones, & Satterfield, 1991). Rape may also result in physical injury to the victim or lead to medical difficulties, such as sexually transmitted diseases and pregnancy (Tjaden & Thoennes, 2000).

Despite recent efforts to incorporate sexual assault prevention programs into universities, rape is still a widely occurring phenomenon on college campuses (Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007). In order to protect future victims from such devastating emotional and physical trauma, social workers struggle to find rape prevention methods that are effective at reducing the incidence of sexual assault on college campuses. For example, some researchers have examined the efficacy of rape prevention programs that focus upon debunking rape myths (Anderson & Whiston, 2005; Bradley, Yeater, & O'Donohue, 2009; O'Donohue, Yeater, & Fanetti, 2003). However, more recently, researchers have examined the role of empathy—the ability to imagine the thoughts, feelings, and emotions of another person—in reducing the incidence of sexual assault on college campuses. These researchers hypothesize that the more potential rapists empathize with rape victims, the less likely they are to commit rape (Wastell, Cairns, & Haywood, 2009). Therefore, an increase in empathy for rape victims is hypothesized to decrease the likelihood of raping.

A common cognitive behavioral treatment method for sexual offenders includes the development of “victim empathy” through role-playing and viewing victims’ descriptions of their experiences (Grossman, Martis, & Fichtner, 1999). In other words, these

treatments attempt to increase sexual offenders' rape empathy: the amount of empathy one feels for a rape victim in a rape situation (Osland, Fitch, & Willis, 1996). However, re-offending remains a major problem among treated sex offenders, suggesting that it may be difficult to increase one's empathy levels in the long-term (Wastell et al., 2009).

Although interventions with incarcerated sex offenders do not completely eliminate recidivism rates, empathy-based interventions with other populations, such as university undergraduates, have had more positive outcomes. The results of these empathy-based rape prevention programs have been mixed with many successfully increasing subjects' empathy for rape victims, while some others are ineffective at significantly changing participants' empathy levels (Anderson & Whiston, 2005; Berg, Lonsway, & Fitzgerald, 1999; Bradley, Yeater, & O'Donohue, 2009; Borden, Karr, & Caldwell-Colbert, 1988; Foubert, Godin, & Tatum, 2009; Foubert & Perry, 2007; O'Donohue, Yeater, & Fanetti, 2003; Pinzone-Glover, Gidycz, & Jacobs, 1998; Schewe & O'Donohue, 1993b). In spite of these mixed results, one study found that participants both at high risk and low risk of raping had increased empathy for rape victims following an empathy-based program; however, high-risk participants responded *more* favorably to the intervention than the low-risk participants (O'Donohue, Yeater, & Fanetti, 2003). These participants' risk of raping was determined by their self-reported response to a survey item regarding their own likelihood of raping should they not be caught or punished. These positive results for many empathy-based rape prevention programs successfully increasing subjects' rape empathy levels—especially subjects at high risk of raping—suggest that this type of programming warrants further study.

Rape prevention is relevant to social work practice because of the sheer amount of human suffering that even one sexual assault victim may face. However, in order to provide relevant rape prevention services, social workers must also identify the severity of the need for such services through descriptive and exploratory studies. Therefore, the purpose of this study was to explore university undergraduates' empathy for male and female rape victims and to find relationships between these rape empathy levels and the students' self-reported likelihood of raping, past sexual experiences, and demographics. The present clinical research project provides the literature review that led to the research questions, the conceptual framework behind this project, the study's methods, the study's findings, and a discussion of the present study's implications for future social work research and practice.

Literature Review

Rape Empathy

Rape empathy refers to the amount of empathy one feels for a rape victim in a rape situation (Osland, Fitch, & Willis, 1996). As men increase their empathy toward rape survivors, understand rape trauma better, and have more aversion to the act of rape in general, they report less likelihood of raping (Deitz, Blackwell, Daley, & Bentley, 1982; Hamilton & Yee, 1990; Schewe & O'Donohue, 1993a). Although research has shown that there is a relationship between one's empathy toward rape survivors and one's likelihood of raping, there appears to be a difference between general emotional empathy and rape empathy (Hamilton & Yee, 1990; Schewe & O'Donohue, 1993a). Whereas general emotional empathy refers to one's ability to empathize with another person in general, rape empathy refers to the amount of empathy one has toward a rape victim

specifically. In a study of male undergraduates' likelihood of raping, subjects' rape proclivity and forcing sex proclivity were determined by the subjects' self-reported likelihood of raping and forcing sex if they were guaranteed not to have any negative consequences. Men who reported a high proclivity of raping and forcing sexual intercourse scored lower on rape empathy than those subjects who reported no proclivity of raping or forcing sex; however, there were no statistically significant differences between these groups on their general emotional empathy scores (Osland, Fitch, & Willis, 1996). These findings suggest that rape empathy is qualitatively different from general emotional empathy in some ways. Therefore, the present study explored undergraduates' rape empathy, as opposed to general emotional empathy, in order to determine the relationship between these students' ability to empathize with rape victims and other variables.

Sexual Offenders' Compared to Non-Offenders' Rape Empathy Levels

Research has shown that sexual offenders tend to be less empathic toward women who have been sexually assaulted and significantly less empathic toward their own victims (Marshall & Moulden, 2001). In a study of male undergraduates, of whom some were self-reported rapists and others were control subjects, the results showed that, compared to nonaggressive men, sexually aggressive men manifested a lower capacity for empathy, they made more errors in identifying affect on male faces, and they more strongly endorsed rape myths (Lisak & Ivan, 1995). Rape myths are stereotyped, false beliefs about rape, rape victims, and rapists that create a hostile climate for rape victims, such as "only bad girls get raped" or "rapists are sex-starved, insane, or both" (Burt, 1980). Interestingly, the sexually aggressive men made more errors in identifying the

affect on male faces but not female faces, suggesting that their relative lack of empathy is not based on an inability to accurately read the other person's facial expression. The findings from Lisak and Ivan's study (1995) suggest that men's capacity to experience their own emotions and to empathize with the emotions of others may be an important factor in the existence of violence against women.

The relationship between sexual arousal to rape stimuli and rape empathy.

In addition to the finding that undergraduate, sexually aggressive men scored significantly lower on empathy scales than sexually nonaggressive men (Lisak & Ivan, 1995), phallometric studies have shown that rapists' sexual arousal patterns differ greatly from those of non-rapists (Quinsey, Chaplin, & Upfold, 1984). In phallometric studies, a subject's penile responses to consensual and nonconsensual sexual stimuli are measured by a mercury-in-rubber strain gauge that the subject fits to the shaft of his penis. As the subject becomes sexually aroused, the gauge measures the changes in the subject's penis width (Rice, Chaplin, Harris, & Coutts, 1994). In a study comparing rapists' and non-rapists' phallometric responses to audiotapes recounting consensual and nonconsensual heterosexual interactions, non-rapists gave the highest responses to consenting sexual stimuli, whereas rapists gave the highest responses to stimuli depicting rapes; in fact, rapists actually *preferred* rape stories to stories of consenting sex (Abel, Barlow, Blanchard, & Guild, 1977; Rice, Chaplin, Harris, & Coutts, 1994).

Just as rapists develop erections to rape scenes while non-rapists do not (Abel et al., 1977), rapists score significantly lower on the self-reported measures of empathy than non-rapists; therefore, more deviant phallometric responding is associated with lower self-reported empathy (Rice et al., 1994). These results are consistent with the view that

rape stories inhibit non-rapists' sexual arousal, because these men empathize with the victim and experience some of her suffering. On the other hand, the suffering of the victim does not inhibit rapists' sexual arousal, because the rapists experience little or no empathy for the female victim. Consequently, the results of this study suggest that research should continue to explore how increasing rapists' or potential rapists' rape empathy affects their likelihood of raping in the future.

The role of rape empathy in rape prevention efforts. In response to findings that rapists score significantly lower on measures of empathy than non-rapists (Lisak & Ivan, 1995; Rice et al., 1994), several authors have highlighted the development of empathy as possibly leading to reduced sexual offending rates among both rapists and potential rapists (Aytes, Olsen, Zakrajsek, Murray, & Ireson, 2001; Jackson & Bonacker, 2006; Lisak & Ivan, 1995; Rice et al., 1994; Wastell, et al., 2009). This hypothesis is based upon the basic premise that, if sexual offenders' empathic skills can be improved so that they understand the consequences of their actions upon others, they will be much less likely to offend (Wastell et al., 2009). It is important to find adequate treatments that will reduce sexual offense rates, because sexual offenders almost always have more than one victim; therefore, effectively treating only one offender or reducing a potential offender's likelihood of raping could significantly reduce human suffering (Aytes et al., 2001). Therefore, the present study explored the potential need for an empathy-based rape prevention program in a university setting by identifying an undergraduate population's current rape empathy levels, self-reported likelihood of raping, and past sexual experiences.

Undergraduate Subjects' Likelihood of Raping

Several researchers have asked subjects to indicate the likelihood that they would commit sexual aggression if they could be assured that they would not suffer any negative consequences (Briere & Malamuth, 1983; Malamuth, 1981; Malamuth, Haber, & Feshbach, 1980). The purpose of the research is to identify individual differences among men in their motivations and inclinations to aggress sexually. Subjects respond to either a single item to assess the likelihood of rape (LR) or to an additional item to assess the likelihood of forcing sex (LF). The degree of a subject's "proclivity to rape" is defined according to the relative likelihood for men to rape under various conditions that may or may not actually occur (Malamuth, 1981).

In one such LR study, Malamuth, Haber, and Feshbach (1980) found that male and female undergraduates believe that almost half of the male population would rape if they were assured that they would not be caught and punished. Furthermore, over half of the male sample did not rule out the possibility that they would engage in sexual assault if they could not be caught. Across three studies, it was found that between 16% and 20% of subjects indicate some likelihood of raping while between 36% and 44% of subjects indicate some likelihood of engaging in forced sex (Malamuth, 1989). Osland, Fitch, and Willis (1996) found that 34% of college men reports some proclivity to rape or to use force during sexual intercourse. Malamuth (1981) found that men reporting some likelihood of raping are more similar to convicted rapists than to subjects reporting no likelihood of raping in their acceptance of rape myths and in their sexual arousal to rape depictions. Specifically, men reporting some likelihood of raping, like convicted rapists, are more accepting of rape myths and become more sexually aroused by rape depictions

than men reporting no likelihood of raping. Moreover, there is a significant correlation between subjects' LR ratings and subjects' self-reports that they have personally used force against females in sexual relations and may do so again in the future.

Many of the surveys used in past research to gauge one's past sexual experiences treat men as the aggressor and women as the victims of aggression. For example, in many studies, only the female subjects are asked, "Have you ever been raped?" (McConaghy, Zamir, & Manicavasagar, 1993). Although more men than women report both the likelihood and experience of being sexual aggressors, some women also report the likelihood or experience of sexually aggressive behavior. For example, in one study, 6% of female undergraduate subjects reported being so aroused they couldn't stop when their partner didn't want intercourse, and 13% of male undergraduate subjects reported having had intercourse against their will (McConaghy, Zamir, & Manicavasagar, 1993). In another study, 8% of the female undergraduate subjects and 18% of the male undergraduate subjects reported sexual perpetration experience; of those subjects that reported victimization experience, 97% of the undergraduate women reported that they had been victimized by men while 90% of the undergraduate men reported that they had been victimized by women (Osman, 2011). These statistics also reveal the need to identify homosexual sexual assault experiences. The results of these studies lead to the present research using non-gendered survey items in order to explore further the prevalence of female perpetration and male victimization on college campuses.

The effect of undergraduates' self-reported likelihood of raping on their rape empathy. Schewe and O'Donohue (1993a) found that male undergraduates at high risk of sexually abusing indicated greater sexual arousal to rape and showed less empathy for

rape victims than low risk subjects. In another study, sexually aggressive men, compared to nonaggressive men, scored significantly lower on empathy (Lisak & Ivan, 1995). Additionally, male undergraduates reporting some proclivity of raping scored lower in rape empathy than those subjects who reported no rape proclivity (Osland, Fitch, & Willis, 1996). The results of these studies reveal that there is a significant difference between subjects who report some likelihood of raping and those who report no likelihood of raping on their rape empathy levels.

Although male undergraduates with some self-reported likelihood of raping empathize less with rape victims than those male undergraduates with no self-reported likelihood of raping, some empathy-based rape prevention programs have been effective at decreasing subjects' likelihood of raping. Foubert and Newberry (2006) found that, of the 30% of male undergraduates who reported a likelihood of committing sexual assault, 73% reported a lower likelihood of committing sexual assault after participating in an empathy-based program, while 62% of the original high-risk group reported absolutely no likelihood of committing sexual assault after participating in the program. In another study, a clear majority of participants reported a decreased likelihood of being sexually coercive as a result of attending an empathy-based rape prevention program (Foubert & Marriott, 1997). Interestingly, O'Donohue, Yeater, and Fanetti (2003) found that high-risk participants responded more favorably to an intervention than the low-risk participants; however, both the high-risk and low-risk participants had increased rape empathy following the program. These findings reveal that, although male undergraduates at high risk of committing sexual assault differ from low-risk males in

terms of their rape empathy, it is possible to decrease one's likelihood of raping and to increase one's rape empathy through empathy-based rape prevention programs.

The Effect of a Rape Victim's Gender on Rape Victim Empathy

The effects of programming with a focus on female rape victims on male undergraduates' rape empathy. In a study concerning the effects of an empathy-based intervention on male undergraduates' empathy for female rape victims, O'Donohue, Yeater, and Fanetti (2003) found that a intervention-based video produced greater immediate changes on measures of rape empathy, rape myth acceptance, attitudes toward interpersonal violence, adversarial sexual beliefs, attraction to sexual aggression, and self-efficacy than a control video. The experimental program was also more effective than the alternative program in changing these responses for participants who reported a previous history of sexually coercive behavior. Furthermore, these high-risk participants responded more favorably to the video-based intervention than low-risk participants. In addition to the finding that all-male programming with a focus on female victims can increase male undergraduates' rape empathy, Schewe and O'Donohue (1993b) found that subjects in an empathy intervention group showed significantly larger increases in empathy ratings than subjects in a rape facts intervention group. Whereas the empathy intervention group focused on increasing empathy for rape victims, the rape facts intervention group aimed to dispel rape myths. Furthermore, the participants in the empathy condition showed fewer rape-supportive attitudes and behaviors posttreatment than did the rape facts group. The results of these studies support the potential for rape prevention programs that focus upon female victims to increase participants' rape empathy in order to decrease male rape proclivity.

Although research findings show that programming that focuses on female victims may successfully increase male undergraduates' rape empathy (O'Donohue, Yeater, & Fanetti, 2003; Schewe & O'Donohue, 1993b), Berg, Lonsway, and Fitzgerald (1999) conducted a study among male undergraduates to assess the efficacy of a rape prevention program that was unsuccessful at increasing men's rape empathy. For the program, subjects listened to an audiotape of either a man or woman describing the experience of being raped. Two weeks after listening to the audiotapes, the students who heard the female tape reported *more* likelihood of engaging in rape-supportive behavior and no difference in empathy towards rape victims. This finding, paired with the finding that some male undergraduates report becoming sexually aroused during rape prevention programming (Pinzone-Glover, Gidycz, & Jacobs, 1998), suggests that rape prevention programs need to become more effective at increasing participants' awareness about the effects of rape and increasing participants' empathy towards rape victims (Foubert & Perry, 2007). As some programs that focus on female victims have the unintended outcome of increasing men's rape-supportive attitudes and sexually arousing male participants, some researchers have explored the effects of programming that focuses on male victims on male undergraduates' rape empathy, as men may be more likely to empathize with male rape victims than female rape victims (Smith & Frieze, 2003).

Male undergraduates' perceptions of empathy-based programming with a focus on male victims. In order to evaluate the efficacy of rape prevention programs that present male victims' rape experiences rather than female victims' rape experiences, Foubert and Perry (2007) conducted a qualitative analysis of collegiate fraternity members' and male student athletes' written responses to an empathy-based rape

prevention program. For this program, participants watched a video describing a male policeman's experience of being raped by two, heterosexual men who used rape to exert power and control. Following the video, participants reported substantially increased empathy toward rape survivors. Participants also stated that this video helped them better understand what rape feels like, apply this understanding to what female survivors might feel, and connect this understanding to helping survivors and confronting rape jokes. In another qualitative study concerning male undergraduates' responses two years following their participation in a male victim, empathy-based program, Foubert, Godin, and Tatum (2009) found that nearly four-fifths of the male participants reported an attitude change, behavior change, or both. The participants also reported increased victim empathy, increased motivation to intervene where rape seemed imminent, and a greater understanding of how to connect with the survivor's experience. These studies suggest that programming that focuses on increasing male undergraduates' empathy for male rape victims may increase men's rape empathy and encourage these men to change their own behavior.

The results of the previous studies suggest that rape prevention programs that focus on male rape victims, rather than female rape victims, might be more effective at increasing male participants' empathy levels (Foubert, Godin, & Tatum, 2009; Foubert & Perry, 2007). Research on men's empathy toward rape survivors has consistently shown that describing male-on-male rape experiences leads to significant declines in men's likelihood of raping women and to decreasing men's false beliefs about rape, rape victims, and rapists (Schewe & O'Donohue, 1993a). Conversely, describing a male-on-

female rape experience can increase men's belief in these stereotypes and can lead to increased likelihood of sexual aggression (Berg et al., 1999).

Although some research has found positive results for the effects of male victim, empathy-based rape prevention programs on male undergraduates' empathy for both male and female rape victims (Foubert, Godin, & Tatum, 2009; Foubert & Perry, 2007), Osman (2011) found that male undergraduate subjects without sexual victimization experience reported the least empathy with a male rape victim. However, male subjects with sexual victimization experience did not differ in empathy for male and female rape victims, revealing that the relative lack of empathy with a male victim disappeared. Therefore, the present study explored whether or not undergraduates are more likely to empathize with male or female rape victims. The present study also investigated whether undergraduates' experiences of sexual victimization or sexual perpetration affected their ability to empathize with male or female rape victims. Additionally, the present study explored whether subjects find it easier to empathize with a rape victim that is of their same gender.

Factors in Rape Empathy

The effect of a rape victim's alcohol consumption on participants' rape empathy. Alcohol is an important contributor to sexual assault on college campuses, as studies have shown that 72% of a sample of US college rape victims reported that they were intoxicated at the time of the rape, and estimates suggest that between one half to two-thirds of assailants had been drinking prior to a sexual assault (Littleton, Tabernik, Canales, & Backstrom, 2009). Interestingly, studies have shown that as the amount of prior intimacy and alcohol increases and the victim's resistance decreases in sexual

intercourse scenarios, male participants are less able than female participants to accurately define a situation as rape (Pinzone-Glover, Gidycz, Jacobs, & 1998). These results suggest that confusion about consent in circumstances where alcohol has been consumed may affect participants' empathy for rape survivors. In order to examine further how ambiguous consent as a result of a rape victim's intoxication may affect participants' rape empathy, the author included severe alcohol consumption in the male and female rape victim scenarios in the present study's survey.

The effect of sexual victimization experience on rape empathy. Studies have found that female undergraduates who have personally experienced rape score higher on rape victim empathy than those female subjects without sexual victimization experiences (Deitz et al., 1982; Smith & Frieze, 2003). Furthermore, female undergraduates with victimization experience are especially empathetic with a female rape victim, and these subjects empathize more with a female victim than a male victim (Osman, 2011). Whereas victimization experience appears to be related to female subjects' rape empathy, male undergraduate subjects who report victimization experience do not differ in empathy for male and female rape victims. Additionally, male undergraduates who do not report victimization experience empathize more with female victims than male victims and are relatively non-empathetic with a male victim (Osman, 2011). Therefore, sexual victimization experience seems to affect female and male undergraduates' rape empathy in different ways. Moreover, Borden, Karr, and Caldwell-Colbert (1988) found that personally knowing a rape victim was not significantly related to male or female undergraduates' empathy toward rape victims. Consequently, the present study explored

how one's victimization experience and knowing a rape victim may or may not affect one's rape empathy.

The effect of sexual perpetration experience on rape empathy. Male subjects with a history of sexual perpetration experience report more empathy with a male rapist than those without perpetration experience (Osman, 2011). Additionally, sexual offenders tend to be less empathic toward rape victims, and rapists score significantly lower on self-reported measures of empathy than non-rapists (Marshall & Moulden, 2001; Rice, Chaplin, Harris, & Coutts, 1994). Furthermore, sexually aggressive men score significantly lower on empathy scales than nonaggressive men (Lisak & Ivan, 1995). The present study continued to explore how one's sexual perpetration experience affects one's rape empathy. Additionally, the present study addressed how female subjects' perpetration experience affects their rape empathy, as research has not adequately addressed the presence of effects of female sexual perpetration.

The effect of gender on rape empathy. Smith and Frieze (2003) found that female undergraduates tend to score higher on rape victim empathy, whereas male undergraduates tend to score higher on rape perpetrator empathy. In other words, in a heterosexual rape situation, female subjects empathize more with the female victim while male subjects empathize more with the male perpetrator. Osman (2011) also found that female undergraduates score higher on victim empathy than male undergraduates. Although men and women seem to differ in terms of rape victim empathy, Pinzone-Glover, Gidycz, and Jacobs (1998) conducted an empathy-based rape prevention program that successfully increased male and female undergraduates' empathy for rape victims. Whereas some rape prevention programs increase subjects' rape empathy, Borden, Karr,

and Caldwell-Colbert (1988) found that men were less empathetic and sensitive in their attitudes toward rape than women, and a rape prevention program was unsuccessful in reducing these differences. The present study explored the relationship between one's gender and one's rape empathy.

The effect of race on rape empathy. Several studies have examined racial differences in relation to attitudes towards rape. In a comparison of Whites' and Latinos' scores on the Attitudes Toward Rape Victims Scale (ARVS; Ward, 1988), Jimenez and Abreu (2003) found that White women ($M = 2.10$, $SD = 0.62$) hold generally more favorable attitudes toward victims of rape than Latina women ($M = 2.42$, $SD = 0.72$). Attitudes toward rape include whether one believes in rape myths or stereotypes, expresses of rape-tolerant attitudes, or ascribes blame to rape victims rather than perpetrators (Jimenez & Abreu, 2003). Similarly, Asian Americans ($M = 37.05$, $SD = 14.07$) tend to hold more negative attitudes toward victims of rape compared to Whites ($M = 27.20$, $SD = 13.63$) (Lee & Cheung, 1991; Mori, Bernat, Glenn, Selle, & Zarate, 1995). Furthermore, Nagel, Matsuo, McIntyre, and Morrison (2005) found that victims of rape are generally viewed more sympathetically by Whites ($M = 47.416$) than by African Americans ($M = 52.204$); however, these researchers found that African American ($M = 58.667$) males hold the least sympathetic views toward rape victims, followed by White males ($M = 49.427$), then African American females ($M = 45.741$), and then White females ($M = 45.405$). Whereas these studies compare racial groups on their attitudes towards rape victims, the present study explored the relationship between race and rape empathy.

The effect of religiosity on rape empathy. Whereas some research suggests that individuals with more fundamentalist religious convictions hold more negative attitudes toward victims of rape (Sheldon & Parent, 2002), other research has found that there are no significant differences between religious versus nonreligious participants on their attitudes towards rape victims (Nagel, Matsuo, McIntyre, & Morrison, 2005). Other studies have shown that church attendance is not significantly related to an undergraduate's empathy towards rape, rapists, or rape victims (Borden, Karr, & Caldwell-Colbert, 1988). Additionally, Duriez (2004) found that, whereas general empathy is unrelated to being religious, it is positively related to processing religious contents in a symbolic way. The present study continued to explore the relationship between religiosity and empathy towards rape victims.

The effect of social class on rape empathy. Previous research has found that education and income were significant predictors of changes in attitudes towards victims of rape (Nagel, Matsuo, McIntyre, Morrison, 2005). Specifically, this study found that respondents with higher education and higher income levels held more sympathetic views of victims of rape. Therefore, some research suggests that there is a significant relationship between one's social class and one's attitudes towards rape victims. The present study continued to explore how social class is related to one's empathy for rape victims. For this study, social class was measured in terms of one's self-reported socioeconomic status.

Research Questions

The review of the literature led to the following research questions:

- a. What is the relationship between undergraduates' rape empathy and their self-reported likelihood of raping?
- b. What is the relationship between undergraduates' rape empathy and the gender of the rape victim?
- c. What is the relationship between undergraduates' rape empathy and their past sexual experiences, including sexual victimization and sexual perpetration experiences?
- d. What is the relationship between undergraduates' rape empathy and their demographics, including gender, race, and religiosity?

The present research explored these research questions by conducting a survey among university undergraduates that addressed their rape empathy levels, self-reported likelihood of raping, self-reported empathy towards male and female rape victims, past sexual experiences, and demographics.

Conceptual Framework

Historically, empathy has been defined in two ways: as the ability to assume another person's point of view and as a vicarious affective response to the perceived emotional experience of another person (Deitz, Blackwell, Daley, & Bentley, 1982). Studies on empathy have found that empathy is related to but distinct from other vicarious affective responses to another's suffering, such as sadness and distress (Fultz, Schaller, & Cialdini, 1988). Whereas sadness and distress are composed of self-oriented negative feelings, empathy is related to other-oriented feelings. However, research has

found that taking the perspective of a victim leads not only to increased empathy, but also to increased distress and personal sadness (Bradley, Yeater, & O'Donohue, 2009; Cialdini, Schaller, Houlihan, Arps, Fultz, & Beaman, 1987). Therefore, it appears that sadness and distress may be related to one's ability to empathize with a rape victim.

The Role of Rape Empathy in Potentially Reducing the Prevalence of Sexual Assault

Finkelhor (1984) has theorized that four components must be present before sexual offenses can occur: the motivation to sexually offend, overcoming internal inhibitions to sexually offend, overcoming external inhibitions to sexually offend, and overcoming the target's resistance. Increased rape victim empathy could potentially reduce the incidence of sexual assault by reducing one's motivation to sexually offend and by reducing one's ability to overcome internal inhibitions. This hypothesis is based upon the basic premise that, if sexual offenders increase their ability to empathize with rape victims and understand the consequences of their actions upon others, they will be much less likely to offend or to reoffend (Wastell, Cairns, & Haywood, 2009).

In line with this sexual victimization theory, victim empathy therapy techniques, a form of cognitive-behavioral treatment (CBT), attempt to increase sexual offenders' empathy for sexual assault victims so that these offenders will be less likely to re-offend in the future (Wastell, Cairns, & Haywood, 2009). CBT programs address the cognitive and behavioral aspects of empathic ability in order to correct sexual offenders' empathic deficiencies, thereby aiming to produce positive treatment results and lower recidivism rates among these offenders (Wastell et al., 2009). These CBT programs involve components that reduce deviant arousal while increasing appropriate arousal. Additionally, these programs include cognitive restructuring, social skills training, victim

empathy awareness, and relapse prevention (Grossman et al., 1999). In order to increase sexual offenders' victim empathy awareness, these programs may have rape victims describe their victimization experience to the offenders so that they might have a greater understanding of the consequences of their actions on their victims.

Finkelhor's (1984) sexual victimization theory is supported by research findings that male rapists develop erections to rape scenes while non-rapists do not, and rapists score significantly lower on the self-reported measures of empathy than non-rapists (Abel et al., 1977; Rice, Chaplin, Harris, & Coutts, 1994). It may be that the crucial difference between rapists and non-rapists is that rapists do not empathize with their victims (Rice, Chaplin, Harris, & Coutts, 1994). It appears that rape stories inhibit non-rapists' sexual arousal, because these men empathize with the victim and experience some of her suffering. On the other hand, rapists experience little or no empathy for the female victim, so the physical and psychological suffering of the victim does not inhibit rapists' sexual arousal and, in some cases, may actually increase their sexual arousal (Abel et al., 1977). Additionally, research has found that as men increase their empathy toward rape survivors, they report less likelihood of raping (Hamilton & Yee, 1990; Schewe & O'Donohue, 1993a). Consequently, the results of these studies support the theory that increasing one's empathy for rape victims decreases one's ability to overcome internal inhibitions, thereby decreasing one's likelihood of committing sexual assault.

The present study was conducted within the conceptual framework that an increase in one's rape empathy may decrease one's likelihood of committing sexual assault. The author's view that decreasing the prevalence of sexual assault on college campuses is an important and often overlooked issue led her to explore further what

factors might decrease the prevalence of sexual assault. The present research explored the relationship between undergraduates' rape empathy and their self-reported likelihood of raping and past sexual experiences, as well as other variables, in order to reveal whether or not this conceptual framework—namely, that one's rape empathy affects one's rape proclivity—is a valid theoretical lens under which one can conduct future rape prevention programming.

Methods

Research Design

The purpose of this research project was to explore the relationships between undergraduates' rape empathy and their self-reported likelihood of raping, past sexual experiences, and demographics. The Rape Empathy Survey (Appendix A) assessed undergraduates' rape empathy for male and female victims and identified their responses to other variables. The design of this study was a cross-sectional, quantitative study in which participants completed a questionnaire at one point in time (Monette, Sullivan, & DeJong, 2011).

Sample

The sample for this study was a nonprobability, convenience sample composed of male and female undergraduate students at a mid-sized, Midwestern university. These undergraduates were the target population, because the author hoped to determine whether or not there was a need for more effective rape prevention methods at that university specifically and, potentially, at universities in general. Furthermore, the author was interested in studying undergraduates' attitudes toward rape and experiences with sexual violence, as college is a high-risk period for sexual assault (Sorenson, Stein,

Siegel, Golding, & Burnam, 1987). Additionally, much of the literature regarding rape prevention and rape empathy used undergraduates as the sample, so using a similar sample allowed for easier comparison with previous research findings.

Participants were asked to complete an online survey regarding their attitudes toward and experiences with rape and other variables. The present study had 210 participants (male = 57, female = 153) who completed the study. However, 286 people clicked on the survey link; of those people who clicked on the survey link, three people did not answer the consent question and 10 people chose not to continue on to the survey after reading the consent form. Of the 273 participants who signed the electronic consent form and continued on to the survey, 39 participants did not answer any questions and 15 participants did not finish the survey. These participants' data were removed from the final data set. Of the 219 participants who completed the survey, nine participants were ineligible to participate in the study as a result of their educational status (graduate students = 7, high school seniors = 2). These participants' data were also removed from the final data set. Of the 219 participants who completed the survey, two participants were fifth year students and one participant was a third semester senior; these participants' class years were recoded as seniors. Therefore, there were a total of 210 eligible participants who completed the survey.

The sample for the present study was composed of 57 men (27.1%) and 153 women (72.9%). The sample was composed of 40 freshmen (19.0%), 63 sophomores (30.0%), 56 juniors (26.7%), and 51 seniors (24.3%). In the sample, 171 participants (81.4%) identified themselves as White (Non-Hispanic origin); 11 participants (5.2%) identified themselves as African American; six participants (2.9%) identified themselves

as Hispanic, Puerto Rican, or Mexican American; 17 participants (8.1%) identified themselves as Asian; and four participants (1.9%) identified themselves as some other race. In the sample, 28 participants (13.3%) identified themselves as having no religious affiliation, 127 (60.5%) identified themselves as Catholic, 1 participant (.5%) identified himself or herself as Muslim, 31 participants (14.8%) identified themselves as Protestant, 22 participants (10.5%) identified themselves as having some other religious affiliation. In the sample, 7 participants (3.3%) identified themselves as lower economic status, 44 participants (21.0%) identified themselves as lower-middle economic status, 88 participants (41.9%) identified themselves as middle economic status, 60 participants (28.6%) identified themselves as upper-middle economic status, and 10 participants (4.8%) identified themselves as upper economic status.

Protection of Human Subjects

Recruitment process. The author recruited subjects for this study by placing a notice (Appendix B) about the Rape Empathy Survey in the university's online bulletin; however, subjects were unaware of the survey's title. This notice included a brief description of the purpose of the study and a link to the survey, which the author created by using Qualtrics. This notice also described how, after completing the survey, the participants had the opportunity to enter themselves into a drawing for a prize. However, the participants' contact information for the drawing was collected separately following the submission of their survey data, allowing the participants' survey responses to remain confidential and anonymous. As this survey was disseminated and completed online, this recruitment process eliminated the potential for coercion because the study is truly

voluntary: participants were able to decide whether or not to complete the study on their own time without the researcher being present.

Measures to assure confidentiality/anonymity. When participants submitted their surveys online, Qualtrics anonymously stored the survey data in a spreadsheet. The author then converted this data into a PASW spreadsheet. In order to assure confidentiality, the data was stored in a password-secured Qualtrics account, and the PASW data was stored in the author's password-secured student account on the computers at the university. The data and records will be kept until May 31, 2012, at which point the data files and records will be destroyed and the Qualtrics account will be deactivated. The author and the author's research chair are the only people who had access to the data and records. Data identifying the subject was not made available to anyone other than the author. As previously discussed, the participants' responses remained anonymous, as any identifying information for the prize drawing was collected separately from the survey data.

Protocol for ensuring informed consent. Prior to beginning the online survey, the participants read a consent form (Appendix C) stating the purpose of the study, why the participants had been selected for the study, how the data was monitored, and what strategies were used to keep the data confidential. The participants electronically signed the consent form to express their agreement with and understanding of the study's procedures, risks, confidentiality, and voluntariness before beginning the survey. Furthermore, the participants responded to the following yes-or-no questions that evaluated the participant's understanding of the study:

1. Can you explain the purpose of the survey?

2. Can you describe what your options are if you choose to discontinue the survey?
3. Can you describe the kinds of questions that the survey will contain?

The author ensured that all participants gave their informed consent for participating in the study, because the participants were not be able to take the survey without initially responding “yes” to each of these questions or without electronically signing the consent form.

Data Collection Instrument and Process

The data collection instrument for this study is the Rape Empathy Survey (Appendix A). The author combined existing survey items, prior research, and fictitious victims' rape stories to create an instrument that enabled the author to examine undergraduates' rape empathy and their experiences with rape.

The measurement instrument included 55 items. The survey included the Rape Empathy Scale (RES; Deitz, Blackwell, Daley, & Bentley, 1982). This scale is composed of 19 items, each of which provided the participant with two statements about a heterosexual rape situation. The subjects selected the statement with which they most agree. The sum of the subjects' responses to each item revealed how much they empathize with a rape victim, as opposed to a rape perpetrator, in a heterosexual rape situation. The possible scores range from zero to 19, with higher scores indicating greater empathy for rape victims. Deitz et al. (1982) found that the item-total correlations for the 19 items ranged from .33 to .75 for a sample of jurors and from .18 to .52 for a sample of undergraduate students. For the jurors ($n=170$), the alpha coefficient was .89 overall; the alpha coefficient for female jurors was .89, and the alpha coefficient for male

jurors was .85. For the undergraduates (n=639), the alpha coefficient was .84 overall; the alpha coefficient for female undergraduates was .84, and the alpha coefficient for male undergraduates was .82. These results demonstrate that the RES's internal reliability is acceptable and not dependent upon sex differences as a major source of item homogeneity.

The measurement instrument also included a revised version of the Modified Sexual Experiences Survey (MSES; McConaghy, Zamir, Manicavasagar, 1993; Koss & Oros, 1982). The original Modified Sexual Experiences Survey asked the participants to answer yes or no to a series of questions and to identify the sex of the person with whom the sexual interaction occurred. However, in that study too few participants indicated the sex of their aggressor or victim, so the present study used non-gendered terms, such as "someone," and did not ask participants to indicate the sex of their aggressor or victim. This scale included 24 yes-or-no, non-gendered questions about the subjects' sexual experiences. The survey items were arranged in order of increasing severity of coercive and assaultive behaviors. In order to obtain an objective score quantifying this increasing severity of each subject's sexual victimization and sexual perpetration experience, the scoring of a "Yes" response to each item increased systematically. For example, a "Yes" answer to the first pair of items was given a score of 1, a "Yes" answer to the second pair of items was given a score of 2, and so on. A "No" response, on the other hand, was given a score of 0. The sum of the subjects' responses to each sub-scale determined the extent of the subject's sexual victimization experiences and sexual perpetration experiences. The range of possible scores was from zero to 78 for each sub-scale, with higher scores indicating more severe sexual victimization and sexual perpetration

experiences. The creators of the Modified Sexual Experiences Survey (McConaghy, Zamir, Manicavasagar, 1993) did not directly discuss the survey's alpha coefficients; however, they demonstrated the survey's construct validity by describing the survey's interrelationships with other measurement instruments, such as the Attraction to Sexual Aggression Scale scores ($r=.4$, $p<.001$; ASA; Malamuth, 1981).

The measurement instrument also included two five-point Likert variables that assessed the participants' self-reported likelihood of forcing sex (LF) and self-reported likelihood of raping (LR) (Malamuth, 1981). LR ratings have been found to be positively correlated with sexual arousal to rape but not with arousal to consenting depictions (Malamuth & Check, 1980; Malamuth, Heim, & Feshbach, 1980). Furthermore, individuals with higher LR reports have more callous attitudes toward rape and believe in rape myths to a greater degree than those with lower LR scores (Malamuth & Check, 1980; Malamuth, Haber, & Feshbach, 1980). Furthermore, Rape Myth Acceptance scale scores (RMA; Cronbach's alpha = .875; Burt, 1980) and Acceptance of Interpersonal Violence scale scores (AIV; Cronbach's alpha = .586; Burt, 1980) are both highly correlated with LR scores (Malamuth, 1981). Therefore, current findings suggest that LR and LF items are significantly related to measures of attitudes, beliefs, and experiences with sexual aggression (Malamuth, 1989).

The measurement instrument also included two fictional rape accounts, one by a female victim and one by a male victim. The author purposefully made these accounts of approximately equal length and content so that the Likert items were more likely to measure the subject's self-reported empathy for female versus male rape victims. For example, both accounts included a stranger assault, the victim's incapacitation due to

intoxication, the victim's lack of sexual arousal, the victim's failed attempts to stop the rape, and the victim's physical pain. The participants answered three five-point Likert items ranging from "Not at All" to "Very Much" that related to the subject's empathy for the victims. The author created a Female Rape Victim Empathy Scale and a Male Rape Victim Empathy Scale by reverse scoring the item relating to the participants' blaming the victim and adding this score to the participants' responses to the items referring to feeling sorry for the victim and to feeling what it would be like to be the victim in this situation. The possible scale scores ranged from three to 15 for both the Female Rape Victim Empathy Scale and the Male Rape Victim Empathy Scale. Finally, the measurement instrument also included demographic variables, such as gender, school year, race, religion, and socioeconomic status. The author collected data by administering the online Rape Empathy Survey to a nonprobability, convenience sample at a mid-sized, Midwestern university.

Data Analysis Plan

In order to analyze the demographics of the research sample and to describe the survey data, the author conducted several descriptive statistics, such as frequency distributions and measures of central tendency and dispersion. Furthermore, the author also conducted several inferential statistics. In order to determine the association between different pairs of variables, the author conducted chi-square statistical tests. The author also conducted correlations in order to identify the relationships between the survey's scales. Finally, in order to explore the differences between groups, the author conducted several T-tests and ANOVA tests. For a complete list of the statistical tests that were addressed in this research project, please see Appendix D.

Findings

The Relationship Between Undergraduates' Self-Reported Likelihood of Sexual Aggression and their Rape Empathy

The relationship between undergraduates' likelihood of forcing sex and their rape empathy. In the sample, 202 participants (96.2%) stated that it was very unlikely that they would personally force sex with someone if they could be assured of not being caught or punished, 7 participants (3.3%) said it was unlikely they would personally force sex with someone, and 1 participant (.5%) said he was undecided about personally forcing sex with someone. These categories were recoded into Low Risk of Forcing Sex (LF) and High Risk of Forcing Sex (HF), with a score of one indicating LF and a score of two or higher indicating HF (Malamuth, 1981). Therefore, 202 participants (96.2%) were at low risk for forcing sex and 8 participants (3.8%) were at high risk for forcing sex in the sample.

Table 1 shows the results of a chi-square statistical test for the variables Gender and Likelihood of Forcing Sex (Recoded). This table reveals that 53 male participants (93.0% of male participants; 25.2% of total participants) indicated no likelihood of forcing sex with someone, while 4 male participants (7.0% of male participants; 1.9% of total participants) indicated some likelihood of forcing sex with someone. Additionally, 149 female participants (97.4% of female participants; 71.0% of total participants) indicated no likelihood of forcing sex with someone, while 4 female participants (2.6% of female participants; 1.9% of total participants) indicated some likelihood of forcing sex with someone. However, this chi-square test was not significant ($p = .138$), so there were not fewer men in the sample who were at low risk for forcing sex than one would expect

(actual count = 53, expected count = 54.8), there were not more men in the sample who were at high risk for forcing sex than one would expect (actual count = 4, expected count = 2.2), there were not more women in the sample who were at low risk for forcing sex than one would expect (actual count = 149, expected count = 147.2), and there were not fewer women in the sample who were at high risk of forcing sex than one would expect (actual count = 4, expected count = 5.8). Although the chi-square's results were not significant, these results do indicate that some male and some female participants in the sample were at higher risk for forcing sex than the rest of the sample.

Table 1.

Crosstabulation for Gender and Likelihood of Forcing Sex (Recoded)

			Likelihood of Force Recoded		Total
			1.00	2.00	
Gender	Male	Count	53	4	57
		Expected Count	54.8	2.2	57.0
	Female	Count	149	4	153
		Expected Count	147.2	5.8	153.0
Total		Count	202	8	210
		Expected Count	202.0	8.0	210.0

A measures of central tendency and dispersion test for the variable Rape Empathy Scale Score shows that the minimum Rape Empathy Scale score was 7 points, and the maximum Rape Empathy Scale score was 19 points. The mean Rape Empathy Scale score was 16.97 points (s.d. = 1.96).

An independent samples t-test with the variables Likelihood of Forcing Sex (Recoded) and Rape Empathy Scale Score found that for participants who were at low risk of forcing sex in the sample, their mean Rape Empathy Scale Score was 17.04 points (s.d. = 1.95). For participants who were at high risk for forcing sex in the sample, their mean Rape Empathy Scale Score was 15.14 points (s.d. = 1.46). Therefore, the

difference between these two groups' means was 1.90 points. The results of this t-test were significant ($p = .012$), indicating that participants who are at low risk for forcing sex score higher on the Rape Empathy Scale score than those participants at high risk for forcing sex. Consequently, these results show that LF participants empathize more with a rape victim than HF participants.

Tables 2 and 3 show the results of an ANOVA with the variables Likelihood of Forcing Sex and Rape Empathy Scale score. Table 2 shows that for those LF participants who indicated that it was very unlikely that they would force sex with someone, their mean Rape Empathy Scale score was 17.04 points (s.d. = 1.95). For those HF participants who indicated that it was unlikely that they would force sex with someone, their mean Rape Empathy Scale score was 15.33 points (s.d. = 1.51). For the one HF participant who indicated that he was undecided about whether or not he would force sex with someone, his Rape Empathy Scale score was 14 points. The results of this ANOVA were significant ($p = .034$), indicating that participants who self-report that it is very unlikely that they will force sex with someone score the highest on the Rape Empathy Scale score, followed by those participants who self-report that it is unlikely that they will force sex, followed by the participant who self-reported that he is undecided about whether or not he would force sex with someone. Consequently, these results show that of the three categories represented in the sample, LF participants empathize the most with a rape victim, while those HF participants who are undecided about whether or not they would force sex empathize the least with a rape victim.

Table 2.

Descriptives for Likelihood of Forcing Sex and Rape Empathy Scale

Rape Empathy Scale Score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Very Unlikely	185	17.0432	1.94999	.14337	16.7604	17.3261	7.00	19.00
Unlikely	6	15.3333	1.50555	.61464	13.7534	16.9133	14.00	18.00
Undecided	1	14.0000	.	.	.	.	14.00	14.00
Total	192	16.9740	1.96417	.14175	16.6944	17.2536	7.00	19.00

Table 3.

ANOVA for Likelihood of Forcing Sex and Rape Empathy Scale

Rape Empathy Scale Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25.882	2	12.941	3.440	.034
Within Groups	710.987	189	3.762		
Total	736.870	191			

The relationship between undergraduates' likelihood of raping and their rape empathy. In the sample, 204 participants (97.1%) stated that it was very unlikely that they would personally rape someone if they could be assured of not being caught or punished, 5 participants (2.4%) said that it was unlikely that they would personally rape someone, and 1 participant (.5%) said that he was undecided about personally raping someone. These categories were recoded into Low Risk of Raping (LR) and High Risk of Raping (HR), with a score of one indicating LR and a score of two or higher indicating HR (Malamuth, 1981). Therefore, 204 participants (97.1%) were at low risk for raping and 6 participants (2.9%) were at high risk for raping in the sample.

Table 4 shows the results of a chi-square statistical test for the variables Gender and Likelihood of Raping (Recoded). This table reveals that 55 male participants (96.5% of male participants; 26.2% of total participants) indicated no likelihood of raping

someone, while 2 male participants (3.5% of male participants; 1.0% of total participants) indicated some likelihood of raping someone. Additionally, 149 female participants (97.4% of female participants; 71.0% of total participants) indicated no likelihood of raping someone, while 4 female participants (2.6% of female participants; 1.9% of total participants) indicated some likelihood of raping someone. However, this chi-square test was not significant ($p = .729$), so there were not fewer men in the sample who were at low risk for raping than one would expect (actual count = 55, expected count = 55.4), there were not more men in the sample who were at high risk for raping than one would expect (actual count = 2, expected count = 1.6), there were not more women in the sample who were at low risk for raping than one would expect (actual count = 149, expected count = 148.6), and there were not fewer women in the sample who were at high risk of raping than one would expect (actual count = 4, expected count = 4.4). Although the chi-square's results were not significant, they do indicate that some male and female participants were at higher risk of raping in the sample than other participants.

Table 4.
Crosstabulation for Gender and Likelihood of Raping (Recoded)

			Likelihood of Raping Recoded		Total
			1.00	2.00	
Gender	Male	Count	55	2	57
		Expected Count	55.4	1.6	57.0
	Female	Count	149	4	153
		Expected Count	148.6	4.4	153.0
Total		Count	204	6	210
		Expected Count	204.0	6.0	210.0

An independent samples t-test with the variables Likelihood of Raping (Recoded) and Rape Empathy Scale Score found that for participants who were at low risk for raping in the sample, their mean Rape Empathy Scale Score was 17.04 points (s.d. =

1.83). For participants who were at high risk for raping in the sample, their mean Rape Empathy Scale Score was 14.40 points (s.d. = 4.51). Therefore, the difference between these two groups' means was 2.64 points. The results of this t-test were not significant ($p = .260$), indicating that participants who are at low risk for raping do not score significantly higher on the Rape Empathy Scale score than those participants at high risk for raping. Consequently, these results show that there is not a statistically significant difference between LR and HR participants on how much they empathize with a rape victim.

Tables 5 and 6 show the results of an ANOVA with the variables Likelihood of Raping and Rape Empathy Scale score. Table 5 shows that for those LR participants who indicated that it was very unlikely that they would rape someone, their mean Rape Empathy Scale score was 17.04 points (s.d. = 1.83). For those HR participants who indicated that it was unlikely that they would rape someone, their mean Rape Empathy Scale score was 14.5 points (s.d. = 5.20). For the one HR participant who indicated that he was undecided about whether or not he would rape someone, his Rape Empathy Scale score was 14 points. The results of this ANOVA were significant ($p = .011$), indicating that participants who self-report that it is very unlikely that they would rape someone score the highest on the Rape Empathy Scale score, followed by those participants who self-report that it is unlikely that they would rape someone, followed by the participant who self-reported that he is undecided about whether or not he would rape someone. Consequently, these results show that of the three categories represented in the sample, LR participants empathize the most with a rape victim while those HR participants who

are undecided about whether or not they would rape empathize the least with a rape victim.

Table 5.

Descriptives for Likelihood of Raping and Rape Empathy Scale

Rape Empathy Scale Score

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Very Unlikely	187			17.0428	1.82818	.13369	16.7790	17.3065	8.00	19.00
Unlikely	4	14.5000	5.19615	2.59808	6.2318	22.7682	7.00	18.00
Undecided	1	14.0000	.	.	.	.	14.00	14.00
Total	192	16.9740	1.96417	.14175	16.6944	17.2536	7.00	19.00

Table 6.

ANOVA for Likelihood of Raping and Rape Empathy Scale

Rape Empathy Scale Score

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	34.212	2	17.106	4.601	.011
Within Groups	702.658	189	3.718		
Total	736.870	191			

Interestingly, the results of an independent samples t-test found that there was not a statistically significant difference between LR and HR participants on how much they empathize with a rape victim. However, the ANOVA did find that there were significant differences between the three likelihood of raping categories on their empathy for rape victims. These results may indicate that the presence of the “Undecided” category in the ANOVA test is significant enough to make the whole test significant. In other words, when the “Undecided” participant is recoded to be part of the HR category with the “Unlikely” participants, the significance of this participants’ lower score on the Rape Empathy Scale may be lost in the independent samples t-test. Therefore, it is possible

that regrouping the likelihood of raping categories into LF and HF affected the significance of the differences between the groups on their empathy for rape victims.

The Relationship Between Undergraduates' Rape Empathy and the Gender of the Victim

Measures of central tendency and dispersion test for the Female Rape Victim Empathy Scale showed that the minimum scale score was 5 points, and the maximum scale score was 11.33 points. The mean Female Rape Victim Empathy Scale score was 11.33 points (s.d. = 2.09). Measures of central tendency and dispersion test for the Male Rape Victim Empathy Scale showed that the minimum scale score was 4 points, and the maximum scale score was 15 points. The mean Male Rape Victim Empathy Scale score was 11.28 points (s.d. = 2.11).

Tables 7 and 8 show the results of a correlation matrix between the variables Rape Empathy Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale. Table 7 shows that the mean Rape Empathy Scale score was 16.97 points (s.d. = 1.96), the mean Female Rape Victim Empathy Scale score was 11.33 points (s.d. = 2.09), and the mean Male Rape Victim Empathy Scale score was 11.28 points (s.d. = 11.28). Table 8 shows that there is a statistically significant positive, moderate relationship between the Rape Empathy Scale and the Female Rape Victim Empathy Scale ($r = .366$, $p < .001$). Therefore, as one's empathy for rape victims in general increases, one's empathy for female rape victims also increases. Additionally, there is a statistically significant positive, weak relationship between the Rape Empathy Scale and the Male Rape Victim Empathy Scale ($r = .239$, $p = .001$). Therefore, as one's empathy for rape victims in general increases, one's empathy for male rape victims also increases. Finally,

there is a statistically significant positive, strong relationship between the Female Rape Victim Empathy Scale and the Male Rape Victim Empathy Scale ($r = .804, p < .001$).

Therefore, as one's empathy for female rape victims increases, one's empathy for male rape victims also increases.

Table 7.

Descriptive Statistics for Rape Empathy Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

	Mean	Std. Deviation	N
Rape Empathy Scale Score	16.9740	1.96417	192
Sarah Story Scale Score	11.3349	2.09229	209
Mike Story Scale Score	11.2810	2.11446	210

Table 8.

Correlation Matrix for Rape Empathy Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

		Rape Empathy Scale Score	Sarah Story Scale Score	Mike Story Scale Score
Rape Empathy Scale Score	Pearson Correlation	1	.366**	.239**
	Sig. (2-tailed)		.000	.001
	N	192	192	192
Sarah Story Scale Score	Pearson Correlation	.366**	1	.804**
	Sig. (2-tailed)	.000		.000
	N	192	209	209
Mike Story Scale Score	Pearson Correlation	.239**	.804**	1
	Sig. (2-tailed)	.001	.000	
	N	192	209	210

** . Correlation is significant at the 0.01 level (2-tailed).

The relationship between undergraduates' gender and their empathy for female or male rape victims. An independent samples t-test found that there was a statistically significant difference ($p < .001$) between men's and women's scores on the Female Rape Victim Empathy Scale, with women ($M = 11.67, s.d. = 2.12$) scoring higher

than men ($M = 10.41$, $s.d. = 1.71$). Therefore, female participants empathized more with a female rape victim than did male participants. However, another independent samples t-test found that there was not a statistically significant difference ($p = .163$) between men's ($M = 10.95$, $s.d. = 2.30$) and women's scores ($M = 11.41$, $s.d. = 2.03$) on the Male Rape Victim Empathy Scale. These results indicate that male and female participants do not differ significantly on how much they empathize with male rape victims.

Whereas the results of the t-test with the variables Gender and Female Rape Victim Empathy Scale were statistically significant, the results of the t-test with the variables Gender and Male Rape Victim Empathy Scale were not statistically significant. This difference may be due to the fact that male participants' mean score on the Male Rape Victim Empathy Scale increased relative to their mean score on the Female Rape Victim Empathy Scale, and female participants' mean scores on the Male Rape Victim Empathy Scale and Female Rape Victim Empathy Scale were very similar. Therefore, the male participants' empathy levels for male rape victims increased to be more similar to the female participants' empathy levels, which might explain why there was not a statistically significant difference between men and women on their empathy for male rape victims.

In the present study, female participants' mean score on the Female Rape Victim Empathy Scale ($M = 11.67$, $s.d. = 2.12$) was slightly higher than their mean score on the Male Rape Victim Empathy Scale ($M = 11.41$, $s.d. = 2.03$), and male participants' mean score on the Male Rape Victim Empathy Scale ($M = 10.95$, $s.d. = 2.30$) was slightly higher than their mean score on the Female Rape Victim Empathy Scale ($M = 10.41$, $s.d.$

= 1.71). These results may indicate that female participants empathize more with female rape victims and male participants empathize more with male rape victims.

Additional evidence that participants empathize more with a rape victim of their same gender may be found in Table 9. The chi-square test for Gender and the Female Rape Victim Empathy Scale item "How sorry do you feel for Sarah?" ($p = .454$) was not significant, and the chi-square test for Gender and the Male Rape Victim Empathy Scale item "How sorry do you feel for Mike?" ($p = .499$) was not significant. Additionally, the chi-square for Gender and the Female Rape Victim Empathy Scale item "How much do you believe Sarah is to blame for what happened?" ($p = .317$) was not significant, and the chi-square for Gender and the Male Rape Victim Empathy Scale item "How much do you believe Mike is to blame for what happened?" ($p = .951$) was not significant. However, the chi-square test for Gender and the Female Rape Victim Empathy Scale item "How much can you feel what it would be like to be Sarah in this situation?" ($p < .001$) was significant.

Table 9 shows the results of the chi-square test with the variables Gender and the Female Rape Victim Empathy Scale item "How much can you feel what it would be like to be Sarah in this situation?" Table 9 shows that more male participants responded that they could not at all feel what it would be like to be the female rape victim than expected (actual count = 11, expected count = 5.4), more male participants responded that they could not much feel what it would be like to be the female rape victim than expected (actual count = 18, expected count = 11.5), fewer male participants responded that they could somewhat feel what it would be like to be the female rape victim than expected (actual count = 17, expected count = 18.0), fewer male participants could mostly feel

what it would be like to be the female rape victim than expected (actual count = 10, expected count = 14.5), and fewer male participants could very much feel what it would be like to be the female rape victim than expected (actual count = 0, expected count = 6.7). Additionally, fewer female participants responded that they could not at all feel what it would be like to be the female rape victim than expected (actual count = 9, expected count = 14.6), fewer female participants responded that they could not much feel what it would be like to be the female rape victim than expected (actual count = 25, expected count = 31.5), more female participants responded that they could somewhat feel what it would be like to be the female rape victim than expected (actual count = 50, expected count = 49.0), more female participants could mostly feel what it would be like to be the female rape victim than expected (actual count = 44, expected count = 39.5), and more female participants could very much feel what it would be like to be the female rape victim than expected (actual count = 25, expected count = 18.3). These results show that more female participants were able to somewhat, mostly, or very much feel what it would be like to be the female rape victim than expected, while more male participants were not at all or not much able to feel what it would be like to be the female rape victim than expected. Therefore, it appears that participants may empathize more with rape victims of their same gender.

Table 9.

Crosstabulation for Gender and Female Rape Victim Empathy Scale Item "How much can you feel what it would be like to be Sarah in this situation?"

			SarahStory3					Total
			Not at All	Not Much	Somewhat	Mostly	Very Much	
Gender	Male	Count	11	18	17	10	0	56
		Expected Count	5.4	11.5	18.0	14.5	6.7	56.0
	Female	Count	9	25	50	44	25	153
		Expected Count	14.6	31.5	49.0	39.5	18.3	153.0
Total	Count		20	43	67	54	25	209
	Expected Count		20.0	43.0	67.0	54.0	25.0	209.0

Although the results in Table 9 show that more female participants were able to somewhat, mostly, or very much feel what it would be like to be the female rape victim than expected and more male participants were not at all or not much able to feel what it would be like to be the female rape victim than expected, Table 10 shows that the chi-square test for Gender and the Male Rape Victim Empathy Scale item "How much can you feel what it would be like to be Mike in this situation?" was not significant ($p < .201$). These results indicate that there is not a significant relationship between subjects' gender and their empathy for male rape victims.

Table 10.

Crosstabulation for Gender and Male Rape Victim Empathy Scale Item "How much can you feel what it would be like to be Mike in this situation?"

			MikeStory3					Total
			Not at All	Not Much	Somewhat	Mostly	Very Much	
Gender	Male	Count	16	11	14	10	6	57
		Expected Count	10.3	12.2	18.5	10.3	5.7	57.0
	Female	Count	22	34	54	28	15	153
		Expected Count	27.7	32.8	49.5	27.7	15.3	153.0
Total	Count		38	45	68	38	21	210
	Expected Count		38.0	45.0	68.0	38.0	21.0	210.0

The relationship between undergraduates' school year and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .539$) between freshmen participants ($M = 11.28$, $s.d. = 2.15$) and senior participants ($M = 11.53$, $s.d. = 1.67$) on the Female Rape Victim Empathy Scale. Additionally, there was not a statistically significant difference ($p = .119$) between freshmen ($M = 11.03$, $s.d. = 2.20$) and seniors ($M = 11.69$, $s.d. = 1.67$) on the Male Rape Victim Empathy Scale. These results indicate that freshmen and seniors do not differ significantly on how much they empathize with male or female rape victims.

Another independent samples t-test showed that there was not a statistically significant difference ($p = .841$) between freshmen participants ($M = 11.28$, $s.d. = 2.15$) and participants in all other school years ($M = 11.35$, $s.d. = 2.06$) on the Female Rape Victim Empathy Scale. Additionally, there was not a statistically significant difference ($p = .396$) between freshmen ($M = 11.03$, $s.d. = 2.20$) and all other participants ($M = 11.34$, $s.d. = 2.10$) on the Male Rape Victim Empathy Scale. These results indicate that freshmen participants and all other participants do not differ significantly on how much they empathize with male or female rape victims.

The relationship between undergraduates' race and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .545$) between White participants ($M = 11.31$, $s.d. = 2.18$) and non-White participants ($M = 11.50$, $s.d. = 1.67$) on the Female Rape Victim Empathy Scale. Additionally, there was not a statistically significant difference ($p = .823$) between White participants ($M = 11.27$, $s.d. = 2.23$) and non-White participants ($M = 11.34$, $s.d. = 1.51$) on the Male Rape Victim Empathy Scale. These results indicate that

Whites and non-Whites do not differ significantly on how much they empathize with male or female rape victims.

The relationship between undergraduates' current religious affiliation and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .162$) between participants with no religious affiliation ($M = 11.86$, $s.d. = 2.07$) and participants with some religious affiliation ($M = 11.26$, $s.d. = 2.09$) on the Female Rape Victim Empathy Scale. However, there was a statistically significant difference ($p = .027$) between participants with no religious affiliation ($M = 12.11$, $s.d. = 1.77$) and participants with some religious affiliation ($M = 11.15$, $s.d. = 2.14$) on the Male Rape Victim Empathy Scale. These results indicate that participants with no religious affiliation and participants with some religious affiliation do not differ significantly on how much they empathize with female rape victims; however, participants with no religious affiliation empathize more with male rape victims than participants with some religious affiliation.

An independent samples t-test showed that there was not a statistically significant difference ($p = .380$) between Catholic participants ($M = 11.24$, $s.d. = 2.07$) and non-Catholic participants ($M = 11.50$, $s.d. = 2.14$) on the Female Rape Victim Empathy Scale. Additionally, there was not a statistically significant difference ($p = .392$) between Catholic participants ($M = 11.18$, $s.d. = 2.15$) and non-Catholic participants ($M = 11.44$, $s.d. = 2.08$) on the Male Rape Victim Empathy Scale. These results indicate that Catholic participants and non-Catholic participants do not differ significantly on how much they empathize with male or female rape victims.

The relationship between undergraduates' economic status and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .477$) between lower economic status participants ($M = 11.20$, $s.d. = 2.22$) and upper economic status participants ($M = 11.49$, $s.d. = 2.12$) on the Female Rape Victim Empathy Scale. Additionally, there was not a statistically significant difference ($p = .763$) between lower economic status participants ($M = 11.20$, $s.d. = 2.13$) and upper economic status participants ($M = 11.31$, $s.d. = 2.12$) on the Male Rape Victim Empathy Scale. These results indicate that lower economic status participants and upper economic status participants do not differ significantly on how much they empathize with male or female rape victims.

The relationship between undergraduates' likelihood of forcing sex and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .072$) between low likelihood of forcing sex (LF) participants ($M = 11.38$, $s.d. = 2.10$) and high likelihood of forcing sex (HF) participants ($M = 10.25$, $s.d. = 1.49$) on the Female Rape Victim Empathy Scale; however, this test did near statistical significance. Additionally, there was not a statistically significant difference ($p = .581$) between LF participants ($M = 11.30$, $s.d. = 2.13$) and HF participants ($M = 10.88$, $s.d. = 1.64$) on the Male Rape Victim Empathy Scale. These results indicate that LF participants and HF participants do not differ significantly on how much they empathize with male or female rape victims.

The relationship between undergraduates' likelihood of raping and their empathy for female or male rape victims. An independent samples t-test showed that there was not a statistically significant difference ($p = .692$) between low likelihood of

raping (LR) participants ($M = 11.34$, $s.d. = 2.09$) and high likelihood of raping (HR) participants ($M = 11.00$, $s.d. = 2.37$) on the Female Rape Victim Empathy Scale.

Additionally, there was not a statistically significant difference ($p = .894$) between LR participants ($M = 11.28$, $s.d. = 2.12$) and HR participants ($M = 11.17$, $s.d. = 2.14$) on the Male Rape Victim Empathy Scale. These results indicate that LR participants and HR participants do not differ significantly on how much they empathize with male or female rape victims.

The Relationship Between Undergraduates' Past Sexual Experiences and their Rape Empathy

Table 11 shows the results of a chi-square statistical test for the variables Gender and the Victimization Modified Sexual Experiences Scale Item "Have you ever been raped by someone?" (Recoded). This table reveals that 56 male participants (98.2% of male participants; 26.7% of total participants) indicated that they had not been raped, while 1 male participant (1.8% of male participants; .5% of total participants) indicated that he had been raped. Additionally, 139 female participants (90.8% of female participants; 66.2% of total participants) indicated that they had not been raped, while 14 female participants (10.9% of female participants; 6.7% of total participants) indicated that they had been raped. This chi-square test was not significant ($p = .064$); however, this test did near significance. Therefore, there were not more men in the sample who had not been raped than one would expect (actual count = 56, expected count = 52.9), there were not fewer men in the sample who had been raped than one would expect (actual count = 1, expected count = 4.1), there were not fewer women in the sample who had not been raped than one would expect (actual count = 139, expected count = 142.1),

and there were not more women in the sample who had been raped than one would expect (actual count = 14, expected count = 10.9). Although the chi-square's results were not significant, these results do indicate that some male and some female participants in the sample have experienced severe sexual victimization, such as rape.

Table 11.
Crosstabulation for Gender and Victimization Modified Sexual Experiences
Scale Item "Have you ever been raped by someone?"

			VMSES12 Recoded		Total
			.00	12.00	
Gender	Male	Count	56	1	57
		Expected Count	52.9	4.1	57.0
	Female	Count	139	14	153
		Expected Count	142.1	10.9	153.0
Total		Count	195	15	210
		Expected Count	195.0	15.0	210.0

No participants in the sample indicated that they had raped someone. However, one participant (.5%) stated that she had had sexual intercourse with someone when they did not want to because she threatened to use physical force. Additionally, one participant (.5%) reported that she obtained sexual acts with someone, such as anal or oral intercourse, when they did not want to because she used threats or physical force. Therefore, although no participants indicated that they had raped someone, some participants did indicate participating in sexually coercive behaviors, which meet the legal definition of rape. Therefore, these results indicate that some participants in the sample have participated in severe sexual perpetration, such as rape.

The relationship between undergraduates' past sexual experiences and their rape empathy. Measures of central tendency and dispersion test for the Rape Empathy Scale found that the minimum Rape Empathy Scale score was 7 points, and the

maximum Rape Empathy Scale Score was 19 points. The mean Rape Empathy Scale Score was 16.97 points (s.d. = 1.96). Measures of central tendency and dispersion test for the Victimization Modified Sexual Experiences Scale found that the minimum Victimization Modified Sexual Experiences Scale score was 0 points, and the maximum Victimization Modified Sexual Experiences Scale was 68 points. The mean Victimization Modified Sexual Experiences Scale was 6.37 points (s.d. = 12.13). Measures of central tendency and dispersion test for the Perpetration Modified Sexual Experiences Scale found that the minimum Perpetration Modified Sexual Experiences Scale score was 0 points, and the maximum Perpetration Modified Sexual Experiences Scale was 13 points. The mean Perpetration Modified Sexual Experiences Scale was 1.11 points (s.d. = 2.12).

Tables 12 and 13 show the results of a correlation matrix between the variables Rape Empathy Scale, Perpetration Modified Sexual Experiences Scale, and Victimization Modified Sexual Experiences Scale. Table 12 shows that the mean Rape Empathy Scale score was 16.97 points (s.d. = 1.96), the mean Perpetration Modified Sexual Experiences Scale score was 1.11 points (s.d. = 2.12), and the mean Victimization Modified Sexual Experiences Scale score was 6.37 points (s.d. = 12.13). Table 13 shows that there is a statistically significant moderate, negative relationship between the Rape Empathy Scale and the Perpetration Modified Sexual Experiences Scale ($r = -.339$, $p < .001$). Therefore, as the severity of one's sexual perpetration experiences increases, one's empathy for rape victims decreases significantly. Additionally, the weak, negative relationship between the Rape Empathy Scale and the Victimization Modified Sexual Experiences Scale is not significant ($r = -.036$, $p = .627$). Therefore, as the severity of one's sexual victimization

experiences increases, there is not a statistically significant change in one's empathy for rape victims. Finally, there is a statistically significant weak, positive relationship between the Perpetration Modified Sexual Experiences Scale and the Victimization Modified Sexual Experiences Scale ($r = .235, p = .001$). Therefore, as the severity of one's sexual perpetration experiences increases, the severity of one's sexual victimization experiences also increases.

Table 12.

Descriptive Statistics for Rape Empathy Scale, Perpetration Modified Sexual Experiences Scale, and Victimization Modified Sexual Experiences Scale

	Mean	Std. Deviation	N
Rape Empathy Scale Score	16.9740	1.96417	192
Perpetration MSES Score	1.1073	2.11859	205
Victimization MSES Score	6.3659	12.12669	205

Table 13.

Correlation Matrix for Rape Empathy Scale, Perpetration Modified Sexual Experiences Scale, and Victimization Modified Sexual Experiences Scale

		Rape Empathy Scale Score	Perpetration MSES Score	Victimization MSES Score
Rape Empathy Scale Score	Pearson Correlation	1	-.339**	-.036
	Sig. (2-tailed)		.000	.627
	N	192	190	189
Perpetration MSES Score	Pearson Correlation	-.339**	1	.235**
	Sig. (2-tailed)	.000		.001
	N	190	205	203
Victimization MSES Score	Pearson Correlation	-.036	.235**	1
	Sig. (2-tailed)	.627	.001	
	N	189	203	205

** . Correlation is significant at the 0.01 level (2-tailed).

The effect of undergraduate's sexual experiences on their empathy for female and male rape victims. Tables 14 and 15 show the results of a correlation matrix

between the Victimization Modified Sexual Experiences Scale, the Female Rape Victim Empathy Scale, and the Male Rape Victim Empathy Scale. Table 15 shows that the mean Victimization Modified Sexual Experiences Scale score was 6.37 points (s.d. = 12.13), the mean Female Rape Victim Empathy Scale score was 11.33 points (s.d. = 2.09), and the mean Male Rape Victim Empathy Scale score was 11.28 points (s.d. = 2.11). Table 15 shows that there is a statistically significant weak, positive relationship between the Victimization Modified Sexual Experiences Scale and the Female Rape Victim Empathy Scale ($r = .183$, $p = .009$). Therefore, as the severity of one's sexual victimization experiences increases, one's empathy for female rape victims also increases. Additionally, there is a statistically significant weak, positive relationship between the Victimization Modified Sexual Experiences Scale and the Male Rape Victim Empathy Scale ($r = .143$, $p = .041$). Therefore, as the severity of one's sexual victimization experiences increases, one's empathy for male rape victims also increases. Finally, there is a statistically significant strong, positive relationship between the Female Rape Victim Empathy Scale and the Male Rape Victim Empathy Scale ($r = .804$, $p < .001$). Therefore, as one's empathy for female rape victims increases, one's empathy for male rape victims also increases.

Table 14.

Descriptive Statistics for Victimization Modified Sexual Experiences Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

	Mean	Std. Deviation	N
Victimization MSES Score	6.3659	12.12669	205
Sarah Story Scale Score	11.3349	2.09229	209
Mike Story Scale Score	11.2810	2.11446	210

Table 15.

Correlation Matrix for Victimization Modified Sexual Experiences Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

		Victimization MSES Score	Sarah Story Scale Score	Mike Story Scale Score
Victimization MSES Score	Pearson Correlation	1	.183**	.143*
	Sig. (2-tailed)		.009	.041
	N	205	204	205
Sarah Story Scale Score	Pearson Correlation	.183**	1	.804**
	Sig. (2-tailed)	.009		.000
	N	204	209	209
Mike Story Scale Score	Pearson Correlation	.143*	.804**	1
	Sig. (2-tailed)	.041	.000	
	N	205	209	210

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Tables 16 and 17 show the results of a correlation matrix between the Perpetration Modified Sexual Experiences Scale, the Female Rape Victim Empathy Scale, and the Male Rape Victim Empathy Scale. Table 16 shows that the mean Perpetration Modified Sexual Experiences Scale score was 1.11 points (s.d. = 2.12), the mean Female Rape Victim Empathy Scale score was 11.33 points (s.d. = 2.09), and the mean Male Rape Victim Empathy Scale score was 11.28 points (s.d. = 2.11). Table 17 shows that the weak, negative relationship between the Perpetration Modified Sexual Experiences Scale

and the Female Rape Victim Empathy Scale is not significant ($r = -.064, p = .361$).

Therefore, as the severity of one's sexual perpetration experiences increases, there is not a significant change in one's empathy for female rape victims. Additionally, the weak, negative relationship between the Perpetration Modified Sexual Experiences Scale and the Male Rape Victim Empathy Scale ($r = -.039, p = .581$) is not statistically significant.

Therefore, as the severity of one's sexual perpetration experiences increases, there is not a significant change in one's empathy for male rape victims.

Table 16.

Descriptive Statistics for Perpetration Modified Sexual Experiences Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

	Mean	Std. Deviation	N
Perpetration MSES Score	1.1073	2.11859	205
Sarah Story Scale Score	11.3349	2.09229	209
Mike Story Scale Score	11.2810	2.11446	210

Table 17.

Correlation Matrix for Perpetration Modified Sexual Experiences Scale, Female Rape Victim Empathy Scale, and Male Rape Victim Empathy Scale

		Perpetration MSES Score	Sarah Story Scale Score	Mike Story Scale Score
Perpetration MSES Score	Pearson Correlation	1	-.064	-.039
	Sig. (2-tailed)		.361	.581
	N	205	204	205
Sarah Story Scale Score	Pearson Correlation	-.064	1	.804**
	Sig. (2-tailed)	.361		.000
	N	204	209	209
Mike Story Scale Score	Pearson Correlation	-.039	.804**	1
	Sig. (2-tailed)	.581	.000	
	N	205	209	210

** . Correlation is significant at the 0.01 level (2-tailed).

The Relationship Between Undergraduates' Demographics and their Rape Empathy

The effect of undergraduates' gender on their rape empathy. An independent samples t-test with the variables Gender and Rape Empathy Scale Score found that male participants' mean Rape Empathy Scale Score was 15.92 points (s.d. = 2.20), and female participants' mean Rape Empathy Scale Score was 17.35 points (s.d. = 1.74). Therefore, the difference between these two groups' means was 1.43 points. The results of this t-test were significant ($p < .001$), indicating that female participants score significantly higher on the Rape Empathy Scale score than male participants. Consequently, these results show that female participants empathize more with a rape victim than male participants.

The effect of undergraduates' demographics on their rape empathy. An independent samples t-test found that there was not a statistically significant ($p = .565$) difference between freshmen ($M = 17.22$; s.d. = 1.55) and seniors ($M = 17.00$; s.d. = 1.80) on how much they empathize with a rape victim. Additionally, there was not a statistically significant ($p = .405$) difference between freshmen ($M = 17.22$; s.d. = 1.55) and the participants in other school years ($M = 16.92$; s.d. = 2.05) on how much they empathize with a rape victim. There also was not a statistically significant ($p = .152$) difference between White participants ($M = 16.88$; s.d. = 2.03) and non-White participants ($M = 17.41$; s.d. = 1.60) on how much they empathize with a rape victim. Furthermore, there was not a statistically significant ($p = .113$) difference between participants who have no religious affiliation ($M = 17.52$; s.d. = 1.37) and participants with some religious affiliation ($M = 16.87$; s.d. = 2.03) on how much they empathize with a rape victim. There also was not a statistically significant ($p = .101$) difference between Catholic participants ($M = 16.77$; s.d. = 2.12) and non-Catholic participants ($M = 17.25$;

s.d. = 2.03) on how much they empathize with a rape victim. Finally, there was not a statistically significant ($p = .929$) difference between lower economic status participants ($M = 16.98$; s.d. = 2.39) and upper economic status participants ($M = 17.02$; s.d. = 1.95) on how much they empathize with a rape victim.

Discussion

The Relationship Between Undergraduates' Self-Reported Likelihood of Sexual Aggression and their Rape Empathy

In the present study, 3.8% of all subjects, 7.0% of male subjects, and 2.6% of female subjects indicated some likelihood of forcing sex. Therefore, the present study's results indicated that some male and some female participants were at high risk of forcing sex (HF) in the sample. Additionally, in the present study, 2.9% of all subjects, 3.5% of male subjects, and 2.6% of female subjects indicated some likelihood of raping. Therefore, the present study's results indicated that some male and some female participants were at high risk of raping (HR) in the sample. These findings coincide with previous researchers' findings that both male and female participants report having sexual perpetration experience (McConaghy, Zamir, & Manicavasagar, 1993; Osman, 2011). However, these findings differ from previous researchers' findings that between 36% and 44% of male subjects indicate some likelihood of engaging in forced sex and between 16% and 20% of male subjects indicate some likelihood of raping (Malamuth, 1989). It is possible that the difference between the present study's and other studies' frequencies of HF and HR male subjects may be due to the fact that the large majority of participants who chose to respond to the study was female. Furthermore, the present

study's self-selection recruitment method may have contributed to the differences between the present study's and other studies' frequencies of HF and HR male subjects.

Additionally, the present study found that participants who were at low risk of forcing sex with someone scored significantly higher on the Rape Empathy Scale than those participants who were at high risk for forcing sex with someone. These results indicate that LF participants empathized significantly more with rape victims than HF participants. These findings coincided with previous researchers' findings that those subjects reporting no proclivity to force sex had higher rape empathy than those reporting some proclivity to force sex (Osland, Fitch, & Willis, 1996). Therefore, there appears to be a significant difference between participants who self-report no likelihood of forcing sex and participants who self-report some likelihood of forcing sex on their empathy for rape victims.

In the present study, a t-test found that there was not a significant difference between those participants at low risk of raping and those participants at high risk of raping on their Rape Empathy Scale scores. This result indicates that LR participants and HR participants did not differ significantly on how much they empathized with rape victims. This finding differs from previous researchers' findings that subjects who self-report some likelihood of raping have less empathy for rape victims than those subjects who self-report no likelihood of raping (Osland, Fitch, & Willis, 1996; Schewe & O'Donohue, 1993b). However, it is possible that the results of the present study's t-test were not significant simply because there were so few participants (2.9% of all subjects) in the sample who self-reported some likelihood of raping. Additionally, due to the self-selection subject recruitment process, it is possible that potential participants who may

have indicated some likelihood of raping or lower rape empathy opted out of taking the survey, which may have contributed to the differences between this study's and previous study's results.

Although the present study's t-test did not find a significant difference between LR subjects and HR subjects on their Rape Empathy Scale scores, an ANOVA test found that there were significant differences between participants who indicated that it is very unlikely that they would rape someone (LR), participants who indicated that it is unlikely that they would rape someone (HR), and participants who indicated that they were unsure if they would rape someone (HR) on their Rape Empathy Scale scores. This ANOVA found that, of the three categories represented in the sample, LR participants empathize the most with a rape victim while those HR participants who are undecided about whether or not they would rape someone empathize the least with a rape victim. This finding coincides with previous researchers' findings that subjects who self-report some likelihood of raping have less empathy for rape victims than those subjects who self-report no likelihood of raping (Osland, Fitch, & Willis, 1996; Schewe & O'Donohue, 1993b).

Implications for future social work research, practice, and policy. The present study found that there was a statistically significant difference between those subjects who indicate no likelihood of forcing sex and those subjects who indicate some likelihood of forcing sex on their empathy for rape victims, with LF subjects exhibiting more rape empathy than HF subjects. The present study also found that there was not a statistically significant difference between those subjects who indicate no likelihood of raping and those subjects who indicate some likelihood of raping on their empathy for

rape victims; however, an ANOVA test comparing the specific LR and HR categories did find a significant difference between these groups' rape empathy. Therefore, future social work research should continue to explore the effect of one's likelihood of forcing sex and one's likelihood of raping on one's rape empathy, as the present study's results were inconclusive.

As previously discussed, the present study found that those subjects who self-report no likelihood of forcing sex feel more empathy for rape victims than those subjects who self-report some likelihood of forcing sex. This finding reveals that the more empathy one feels for rape victims, the less likely one is to self-report that one would force sex with someone. Therefore, it is possible that the more empathy one feels for a rape victim, the less likely one is to force sex with someone in reality. This finding has implications for future social work practice, as it suggests that empathy-based rape prevention programs may be effective at reducing the prevalence of sexual assault on college campuses. Additionally, this finding has implications for social work policy, as empathy-based programs may be more effective at reducing recidivism among rapists in the general population, as well.

The Relationship Between Undergraduates' Rape Empathy and the Gender of the Victim

The present study found that as one's empathy for rape victims in general increases, one's empathy for female rape victims also increases significantly. Additionally, as one's empathy for rape victims in general increases, one's empathy for male rape victims also increases significantly. Finally, as one's empathy for female rape victims increases, one's empathy for male rape victims also increases significantly. The

author was unable to find previous research pertaining to the relationship between subjects' Rape Empathy Scale scores and subjects' empathy for male or female victims. Instead, most previous research has explored how the subjects' gender, rather than the gender of the rape victim, was related to subjects' rape empathy (Bradley, Yeater, & O'Donohue, 2009; Deitz, Blackwell, Daley, & Bentley, 1982; Deitz & Byrnes, 1981; Nagel, Matsuo, McIntyre, & Morrison, 2005; Pinzone-Glover, Gidycz, & Jacobs, 1998; Smith & Frieze, 2003).

The present study found that female participants empathized significantly more with a female rape victim than did male participants. This finding coincides with previous research that female subjects empathize more with female rape victims than do male subjects (Borden, Karr, Caldwell-Colbert, 1988; Osman, 2011; Smith & Frieze, 2003). However, the present study also found that male and female participants did not differ significantly on how much they empathized with male rape victims. This finding differs from previous researchers' findings that male subjects who do not report sexual victimization experience empathize less with male rape victims than do female subjects (Osman, 2011). However, this result may be related to the finding that male undergraduates with no sexual victimization experience were more empathic with female victims than male victims, but male undergraduates who reported sexual victimization experience were equally empathic with female and male victims, indicating that, among victimized men, the relative lack of empathy with a male rape victim disappeared (Osman, 2011). Therefore, the present study's finding that male and female participants did not differ significantly on how much they empathized with male rape victims may indicate that male subjects empathized more with male rape victims than female rape

victims, which reduced the difference between male and female subjects' empathy levels for male rape victims, thereby eliminating a statistically significant difference between these groups.

Female participants' mean score on the Female Rape Victim Empathy Scale was slightly higher than their mean score on the Male Rape Victim Empathy Scale, and male participants' mean score on the Female Rape Victim Empathy Scale was slightly lower than their mean score on the Male Rape Victim Empathy Scale. Additionally, more female participants were able to somewhat, mostly, or very much feel what it would be like to be the female rape victim than expected, while more male participants were not at all or not much able to feel what it would be like to be the female rape victim than expected. These results indicate that participants may empathize more with rape victims of their same gender. Smith and Frieze (2003) also found that women may find it easier to empathize with female rape victims, and men may find it easier to empathize with male rape victims. These findings differ from previous researchers' findings that male subjects who do not report sexual victimization experience empathize more with female rape victims than male rape victims, and male subjects who do report sexual victimization experience do not differ in their empathy levels for male or female rape victims (Osman, 2011). However, the present study's finding that participants may empathize more with rape victims of their same gender coincides with previous researchers' theoretical frameworks (Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007). Specifically, many empathy-based rape prevention programs present male rape victims' stories to male participants in order to increase these participants' rape empathy, because describing a male-on-female rape

experience can increase men's belief in rape myths, sexual arousal, and can lead to increased likelihood of sexual aggression (Berg et al., 1999; Smith & Frieze, 2003).

The present study found that participants from different school years, racial identities, faith traditions, socioeconomic statuses, or with differing likelihoods of forcing sex or raping do not differ significantly on how much they empathize with male or female rape victims. Interestingly, the present study also found that participants with no religious affiliation and participants with some religious affiliation do not differ significantly on how much they empathize with female rape victims; however, participants with no religious affiliation empathize more with male rape victims than participants with some religious affiliation. Previous research has addressed whether or not these groups differ in terms of their empathy for rape victims in general (Borden, Karr, & Caldwell-Colbert, 1988; Jimenez & Abreu, 2003; Lee & Cheung, 1991; Mori, Bernat, Glenn, Selle, & Zarate, 1995; Nagel, Matsuo, McIntyre, & Morrison, 2005; Osland, Fitch, & Willis, 1996; Schewe & O'Donohue, 1993b; Sheldon & Parent, 2002). However, the author was unable to find previous research that examined whether or not these demographic groups differed in their empathy for male or female rape victims.

Implications for future social work research, practice, and policy. The present study found that female participants empathized significantly more with a female rape victim than did male participants; however, male and female participants did not differ significantly on how much they empathized with male rape victims, which may have been due to the fact that male participants' empathy for male rape victims was greater relative to their empathy for female rape victims. These results indicate that female participants may empathize more with female rape victims than with male rape

victims, and male participants may empathize more with male rape victims than with female rape victims. Future research should continue to explore whether or not men or women empathize more with rape victims of their same gender. This finding could have important implications for social work practice, as it would likely lead to drastic modifications in rape prevention efforts' designs, particularly on college campuses. This finding could also affect social work policy, as treatment methods with incarcerated rapists may be more effective at reducing male rapists' recidivism rates if they are better able to empathize with male rape victims. Therefore, future social work research, practice, and policy should address the role that the rape victim's gender may play in how much men and women are able to empathize with them.

In addition to exploring how men's and women's rape empathy differ depending upon the gender of the rape victim, future social work research should also investigate whether other demographic groups differ on their empathy for male or female rape victims. The present study's results for how different demographic groups differ on their empathy for male or female rape victims were largely insignificant; however, this insignificance may be due to the fact that so few racial and religious minorities were represented in the present study's sample. Although women are more likely to be victims of rape (Fisher, Cullen, & Turner, 2000; Gidycz, Hanson, & Layman, 1995; Koss, Gidycz, & Wisniewski, 1987), men also experience sexual victimization (Foubert & Marriott, 1997; Osman, 2011). However, male rape victims have been largely ignored in social work research thus far, as most studies explore how demographic groups differ on their empathy for female victims (Borden, Karr, & Caldwell-Colbert, 1988; Jimenez & Abreu, 2003; Lee & Cheung, 1991; Mori, Bernat, Glenn, Selle, & Zarate, 1995; Nagel,

Matsuo, McIntyre, & Morrison, 2005; Osland, Fitch, & Willis, 1996; Schewe & O'Donohue, 1993b; Sheldon & Parent, 2002). Therefore, significant findings in this area could potentially affect future social work practice in terms of increasing populations' rape empathy for male and female rape victims, decreasing populations' adherence to rape myths, or in providing supportive services to male and female rape survivors.

The Relationship Between Undergraduates' Past Sexual Experiences and their Rape Empathy

The present study's results indicated that some male and some female participants in the sample have experienced severe sexual victimization, such as rape. This finding coincides with previous findings that college women and men may experience being the victim of a completed or attempted rape (Fisher, Cullen, & Turner, 2000; McConaghy, Zamir, & Manicavasagar, 1993). While no participants in the sample indicated that they had raped someone, some participants did indicate that they had participated in sexually coercive behaviors that meet the legal definition of rape. This finding coincides with previous researchers' findings that men, regardless of whether they have committed sexual assault, do not perceive themselves to be potential rapists (Scheel, Johnson, Schneider, & Smith, 2001).

The present study found that as the severity of one's sexual perpetration experiences increases, one's empathy for rape victims decreases significantly. This finding corresponds with previous researchers' findings that sexual offenders tend to be less empathic toward women who have been sexually assaulted and significantly less empathic toward their own victims (Marshall & Moulden, 2001). Additionally, the present study found that as the severity of one's sexual victimization experiences

increases, there is not a statistically significant change in one's empathy for rape victims. This finding differs from previous researchers' findings that female undergraduates who indicated that they had been raped empathized more with rape victims than female undergraduates who had not been raped (Deitz, Blackwell, Daley, & Bentley, 1982; Smith & Frieze, 2003). Moreover, this finding differs from previous researchers' findings that male undergraduates who do not report sexual victimization experience are relatively unempathic with male rape victims, while male undergraduates who report sexual victimization experience are equally empathic with female and male rape victims. Therefore, among victimized men, the relative lack of empathy with a male rape victim disappeared (Osman, 2011). The present study found that as the severity of one's sexual perpetration experiences increases, the severity of one's sexual victimization experiences also increases significantly. This finding corresponds with previous findings from a meta-analysis of empirical studies that 28% of sexual offenders reported a history of childhood sexual abuse, which is significantly higher than reported rates in the general population (Hanson & Slater, 1988).

The present study found that as the severity of one's sexual victimization experiences increases, one's empathy for female rape victims also increases significantly. This finding coincides with previous researchers' findings that female undergraduates who indicated that they had been raped empathized more with rape victims than female undergraduates who had not been raped (Deitz, Blackwell, Daley, & Bentley, 1982; Smith & Frieze, 2003). Additionally, the present study found that as the severity of one's sexual victimization experiences increases, one's empathy for male rape victims also increases significantly. This coincides with the finding that male undergraduates who did

not report sexual victimization experience were more empathic with female victims than male victims, but male undergraduates who reported sexual victimization experience were equally empathic with female and male victims, indicating that, among victimized men, the relative lack of empathy with a male rape victim disappeared (Osman, 2011). Moreover, the present study found that as one's empathy for female rape victims increases, one's empathy for male rape victims also increases significantly. The author was unable to find previous research pertaining to the relationship between subjects' empathy for male rape victims and their empathy for female rape victims. Instead, most previous research has explored how men and women may differ in their empathy for male or female rape victims (Berg, Lonsway, & Fitzgerald, 1999; Osman, 2011).

The present study found that as the severity of one's sexual perpetration experiences increases, there is not a significant change in one's empathy for female rape victims. However, this result may be insignificant due to the fact that so few subjects in the present study reported severe sexual perpetration experience. This finding differs from previous researchers' findings that sexual offenders tend to be less empathic toward women who have been sexually assaulted and significantly less empathic toward their own victims (Marshall & Moulden, 2001). Additionally, the present study found that as the severity of one's sexual perpetration experiences increases, there is not a significant change in one's empathy for male rape victims. However, this result may be insignificant due to the fact that so few subjects in the present study reported severe sexual perpetration experience. The author was unable to find previous research pertaining to the relationship between subjects' sexual perpetration experience and their empathy for male rape victims, as most previous research has explored how subjects' sexual

perpetration experience affects their empathy for female rape victims (Lisak & Ivan, 1995; Rice, Chaplin, Harris, & Coutts, 1994) or their empathy for rapists (Osman, 2011).

Implications for future social work research, practice, and policy. The present study had many findings regarding subjects' sexual victimization experience or sexual perpetration experience and their rape empathy that were either insignificant or that differed from previous researchers' findings. The small number of participants who indicated severe sexual perpetration or sexual victimization experience may have affected the reliability and validity of the present study's findings. For example, the present study found that there was not a significant relationship between the severity of subjects' sexual victimization experience and their empathy for rape victims. However, previous research has found that subjects who have experienced sexual victimization are more empathetic with rape victims than those subjects who have not experienced sexual victimization (Deitz, Blackwell, Daley, & Bentley, 1982; Osman, 2011; Smith & Frieze, 2003). Moreover, the present study found that there was not a significant relationship between the severity of subjects' sexual perpetration experience and their empathy for female or male rape victims. However, previous research has found that sexual offenders tend to be less empathic toward female rape victims (Marshall & Moulden, 2001). Therefore, future social work research should continue to explore the relationships between the severity of subjects' sexual victimization experience and subjects' sexual perpetration experience and their empathy for male and female rape victims, as the present study's sample may have limited the validity of these results.

The present study found that, while no participants in the sample indicated that they had raped someone, some participants did indicate that they had participated in

sexually coercive behaviors that meet the legal definition of rape. This finding coincides with previous researchers' findings that men do not perceive themselves to be rapists regardless of whether they have committed sexual assault (Scheel, Johnson, Schneider, & Smith, 2001). Since men do not view themselves as rapists, programming that appeals to undergraduate men's ability to be potential helpers in situations where rape may occur may be more effective in reducing the prevalence of rape than providing facts about the definition of rape (Foubert & Newberry, 2006). This implication for future social work practice corresponds with belief systems theory, which suggests that in order to produce lasting attitude change interventions must be designed to maintain people's existing self-conceptions (Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007). Programming that portrays all men as potential rapists or that describes men's past sexual behaviors as rape does not coincide with men's self-conceptions, so men do not perceive the messages in these programs as relevant to them. Therefore, future social work practice should avoid labeling participants as potential or actual perpetrators; instead, rape prevention programs that encourage men to intervene may be more effective at reducing the prevalence of sexual assault on college campuses.

The Relationship Between Undergraduates' Demographics and their Rape Empathy

The present study found that female participants empathize more with a rape victim than male participants. This finding coincides with previous researchers' findings that in a heterosexual rape situation, female subjects empathize more with the victim while male subjects empathize more with the perpetrator (Smith & Frieze, 2003). Osman (2011) also found that female undergraduates score higher on victim empathy than male undergraduates.

The present study found that there is not a statistically significant difference between freshmen and seniors on how much they empathize with a rape victim. The present study found that there is not a statistically significant difference between freshmen and the other participants on how much they empathize with a rape victim. The author was unable to find previous research pertaining to the difference between students in different class years' empathy levels for rape victims. However, previous research has shown that fraternity members and college athletes are more likely to engage in sexually coercive behaviors than other undergraduates (Foubert & Newberry, 2006; Foubert & Perry, 2007; Osland, Fitch, & Willis, 1996).

The present study found that there is not a statistically significant difference between White participants and non-White participants on how much they empathize with a rape victim. However, this result's insignificance may be due to the small number of participants who identified themselves as a racial minority in the sample. This finding differs from previous researchers' findings that White women hold generally more favorable attitudes toward victims of rape than Latina women (Jimenez & Abreu, 2003). Additionally, the present study's finding differs from previous researchers' findings that Asian Americans tend to hold more negative attitudes toward victims of rape compared to Whites (Lee & Cheung, 1991; Mori, Bernat, Glenn, Selle, & Zarate, 1995). Furthermore, Nagel, Matsuo, McIntyre, and Morrison (2005) found that Whites generally viewed rape victims more sympathetically than African Americans. However, it is possible that White and non-White subjects' attitudes towards rape victims may differ from their empathy for rape victims, which might account for some of the differences between the present study's and previous researchers' findings.

The present study found that there is not a statistically significant difference between participants who have no religious affiliation and participants with some religious affiliation on how much they empathize with a rape victim. This finding coincides with previous researchers' findings that there are no significant differences between religious versus nonreligious participants on their attitudes towards rape victims (Nagel, Matsuo, McIntyre, & Morrison, 2005). Additionally, the present study found that there is not a statistically significant difference between Catholic participants and non-Catholic participants on how much they empathize with a rape victim. This finding may differ from previous researchers' findings that individuals with more fundamentalist religious convictions hold more negative attitudes toward victims of rape (Sheldon & Parent, 2002). However, the present study's comparison of Catholics and all other participants on their rape empathy makes it difficult to determine whether one group was more fundamentalist than the other. Furthermore, it is possible that religious and non-religious subjects' attitudes towards rape victims or Catholic and non-Catholic subjects' attitudes towards rape victims may differ from their empathy for rape victims, which might account for some of the differences between the present study's and previous researchers' findings.

The present study found that there is not a statistically significant difference between lower economic status participants and upper economic status participants on how much they empathize with a rape victim. This finding differs from previous researchers' findings that respondents with higher education and higher income levels held more sympathetic views of victims of rape (Nagel, Matsuo, McIntyre, Morrison, 2005). However, it is possible that lower and upper economic status subjects' attitudes

towards rape victims may differ from their empathy for rape victims, which might account for some of the differences between the present study's and previous researchers' findings.

Implications for future social work research, practice, and policy. The present study found that there were significant differences between men's and women's empathy levels for rape victims, with female subjects having higher empathy for rape victims than male subjects. Research with men has suggested that increased empathy is related to a decreased desire to rape (Deitz, Blackwell, Daley, & Bentley, 1982), so it is possible that increasing men's empathy for rape victims may lead to a reduction in sexually aggressive behavior. Consequently, these findings have important implications for future social work practice: if male undergraduates' empathy for rape victims increases and their likelihood of participating in sexually coercive behavior decreases, then the prevalence of sexual assault on college campuses will likely decrease, as well. Therefore, future social work practice and policy should incorporate methods into their rape prevention programming that aim to increase undergraduates' empathy. Victim empathy techniques may involve undergraduates viewing videotapes of victims' descriptions of their own experiences; role playing; and receiving feedback from therapists, offenders, or victims (Grossman, Martis, & Fichtner, 1999). If these interventions increase undergraduates' rape empathy, it is likely that a lot of human suffering and trauma as a result of sexual assault may be spared (Marriage and Family Encyclopedia, 2010; Muehlenhard, Goggins, Jones, & Satterfield, 1991; Tjaden & Thoennes, 2000).

The present study did not find significant differences between students of different class years' empathy levels for rape victims. However, certain student groups—such as fraternity members and athletes—have been found to be at higher risk of participating in sexually coercive behaviors (Foubert & Newberry, 2006; Foubert & Perry, 2007; Osland, Fitch, & Willis, 1996). Therefore, future social work research should continue to explore the differences between different student groups' empathy levels for rape victims. These findings could influence future social work practice, as rape prevention efforts on college campuses may be more effective at decreasing the prevalence of sexual assault if certain high-risk groups are targeted.

The present study did not find significant differences between Whites and non-Whites, religiously affiliated people and non-religiously affiliated people, Catholics and non-Catholics, or lower socioeconomic status people and upper socioeconomic status people on their empathy for rape victims. It is possible that some of these results were insignificant because of the few number of respondents who self-identified as racial or religious minorities in the sample, which may have affected the reliability and validity of these statistical tests. Therefore, future social work research should continue to explore whether Whites and non-Whites, religiously affiliated people and non-religiously affiliated people, Catholics and non-Catholics, or lower socioeconomic status people and upper socioeconomic status people differ on their empathy for rape victims, as previous research has focused on how these groups differ on their attitudes towards rape victims (Jimenez & Abreu, 2003; Lee & Cheung, 1991; Mori, Bernat, Glenn, Selle, & Zarate, 1995; Nagel, Matsuo, McIntyre, & Morrison, 2005; Sheldon & Parent, 2002). These findings may affect future social work practice and policy, as rape prevention efforts may

need to be modified in order to reduce the prevalence of sexual assault in different racial or religious communities.

Strengths and Limitations

Strengths. One strength in using this measurement instrument for the present study is that it was likely valid and reliable, as it was largely constructed from scales and variables that have been used in previous research. For example, the Rape Empathy Scale (RES; Deitz, Blackwell, Daley, & Bentley, 1982) has high alpha coefficients, thereby increasing the likelihood of the present study's validity and internal reliability. Additionally, the similarities between this instrument and the instruments used in prior research allowed one to draw conclusions regarding similarities and differences between the present study and earlier studies. Another strength for the present study was that it used undergraduates as its sample. Much of the rape prevention literature's participants were undergraduates, so this similarity between the present study's sample and other studies' samples enabled the author to draw conclusions about how the present study's results related to other studies' results with greater reliability. Moreover, another strength of the present study is that it examines the impact of the rape victim's gender on subjects' rape empathy, which is an understudied area of research. Finally, another strength for the measurement instrument is that it was an online survey. As the survey content is somewhat sensitive, this anonymity and lack of researcher coerciveness likely made participants more comfortable and may have encouraged more participants to complete the survey.

Limitations. The greatest limitation of the present study was likely response bias, for subjects may have felt inclined to respond to these sensitive questions in a socially

acceptable way. Another limitation of the measurement instrument may have been that the subjects were aware of the intended purpose of the study—namely, to identify how much they empathize with rape victims. This transparency of the survey's purpose may have contributed further to the participants' response bias. However, the data collection method may have addressed these limitations by reducing experimenter effects, because the anonymous, online survey may have encouraged the participants to respond more honestly than other data collection methods, such as interviews.

Another limitation of the present study was likely the participant recruitment method. It is likely that the self-selection process may have influenced the sample, as evidenced by the fact that several potential participants ($n = 286$) clicked on the survey link but chose not to begin the survey after reading the informed consent form ($n = 10$) or did not answer any of the survey questions after signing the consent form ($n = 39$). Therefore, the present study's self-selection recruitment method may have contributed to the differences between the present study's and previous studies' findings, as participants with less socially acceptable sexual experiences or less empathy for rape victims may have opted out of taking the survey. Therefore, it is likely that those participants who completed the survey may have been more motivated about the survey topic, thereby potentially making the present study's sample less representative of the general undergraduate population.

Another potential limitation of the measurement instrument is that only one or two items were used to assess one's attraction to sexual aggression, which may limit the reliability of the instrument (Greendlinger, 1985; Mould, 1988). However, Malamuth (1989) found that the Likelihood of Raping (LR) and Likelihood of Forcing Sex (LF)

items were significantly related to criterion measures, such as self-reported sexual arousal and physiological measures of sexual arousal. Therefore, while these individual items may not be as reliable as larger scales, these items are significantly related to one's attitudes, perceptions, and sexual arousal to aggression.

Another potential limitation of the measurement instrument is that the author revised the Modified Sexual Experiences Survey scale (MSES; McConaghy, Zamir, Manicavasagar, 1993). Although these revisions were based on past researchers' findings, these changes may still alter the scale's validity and reliability. Furthermore, the reliability and validity of the Female Rape Victim Empathy Scale and the Male Rape Victim Empathy scale may be limited, because each of these scales were made up of only three questions. Additionally, the author constructed these scales without pretesting the items, so, while these scales meet face validity, they may not meet criterion validity or construct validity.

Another potential limitation of the study is that it may not have had a representative sample. For example, very few male or female subjects in the sample self-reported some likelihood of forcing sex or some likelihood of raping. However, previous research has found that between 16% and 20% of male subjects indicate some likelihood of raping while between 36% and 44% of male subjects indicate some likelihood of engaging in forced sex (Malamuth, 1989). Additionally, there were very few people who self-identified as racial minorities or religious minorities in the sample, thereby making it difficult to find statistically significant differences between these groups on their Rape Empathy Scale scores. As a result, many of the statistical tests in the present study found

insignificant differences between groups on their empathy for rape victims; however, a significant difference between these groups may exist in reality.

Conclusion

The present study found that some undergraduates in the sample reported some likelihood of forcing sex with someone or some likelihood of raping someone. Additionally, some male and female undergraduates in the sample reported severe sexual victimization experience and severe sexual perpetration experience. These results reveal the need to modify current rape prevention programs at the university in order to reduce the prevalence of sexual assault by both male and female undergraduates. Furthermore, the present study found that undergraduates may empathize more with rape victims of their own gender. This finding coincides with previous researchers' findings that women may empathize more with female rape victims and men may empathize more with male rape victims (Borden, Karr, Caldwell-Colbert, 1988; Osman, 2011; Smith & Frieze, 2003). Consequently, these findings suggest that rape prevention efforts at the university should be modified that so that these programs will aim to increase female undergraduates' empathy for female rape victims and to increase male undergraduates' empathy for male rape victims.

A review of the literature shows that rape prevention programs that focus on female rape victims' experiences may actually increase male undergraduates' likelihood of engaging in rape-supportive behavior and do not change these men's empathy towards rape victims (Berg, Lonsway, & Fitzgerald, 1999). This finding, paired with the finding that some male undergraduates report becoming sexually aroused during rape prevention programming (Pinzone-Glover, Gidycz, & Jacobs, 1998), suggests that rape prevention

programs need to become more effective at increasing participants' awareness about the effects of rape and increasing participants' empathy towards rape victims (Foubert & Perry, 2007).

Whereas previous research has shown that rape prevention programs that focus on female rape victims may be ineffective at increasing male undergraduates' rape empathy, rape prevention programs that focus on male rape victims successfully increase men's rape empathy for both male and female victims and produce significant attitude and behavior changes (Berg, Lonsway, & Fitzgerald; 1999; Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007). These programs have male participants watch a video describing a male policeman's experience of being raped by two, heterosexual men who used rape to exert power and control. Following the video, the male participants reported substantially increased empathy toward rape survivors. Participants also stated that this video helped them better understand what rape feels like, apply this understanding to what female survivors might feel, and connect this understanding to helping survivors and confronting rape jokes (Foubert & Perry, 2007). In another qualitative study, nearly four-fifths of the male participants reported an attitude change, behavior change, or both. These participants also reported increased victim empathy, increased motivation to intervene where rape seemed imminent, and a greater understanding of how to connect with the survivor's experience (Foubert, Godin, & Tatum, 2009). These studies suggest that programming that focuses on increasing male undergraduates' empathy for male rape victims may increase men's rape empathy and encourage these men to change their own behavior.

Given previous researchers' findings concerning the effectiveness of empathy-based rape prevention programs on increasing female undergraduates' empathy for female rape victims (Pinzone-Glover, Gidycz, & Jacobs, 1998) and male undergraduates' empathy for male rape victims (Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007), the author suggests that the university incorporate empathy-based programming into its prevention efforts that focus on a rape victim of the same gender as the participants. If the undergraduate participants are better able to empathize with the rape victim of their own gender and then generalize this empathy to all rape victims, it is likely that the prevalence of sexual assault and sexually coercive behaviors will decrease on the college campus. This hypothesis is based upon the basic premise that, if potential sexual offenders increase their ability to empathize with rape victims and understand the consequences of their actions upon others, they will be much less likely to offend or to reoffend (Finkelhor, 1984; Wastell, Cairns, & Haywood, 2009).

In addition to incorporating empathy-based programming into rape prevention efforts that focuses on a rape victim of the same gender as the participants, the author also suggests that rape prevention programming focus on how participants can be helpers and can intervene in situations where a rape may occur. Since men do not perceive themselves to be rapists regardless of whether or not they have committed sexual assault (Scheel, Johnson, Schneider, & Smith, 2001), programming that appeals to undergraduate men's ability to be potential helpers in situations where rape may occur may be more effective in reducing the prevalence of rape because it maintains these men's existing self-conceptions (Foubert, Godin, & Tatum, 2009; Foubert & Newberry, 2006; Foubert & Perry, 2007). Programming that portrays all men as potential rapists or that describes

men's past sexual behaviors as rape does not coincide with men's self-conceptions, so men do not perceive the messages in these programs as relevant to them. Therefore, the author suggests that future rape prevention efforts should focus on increasing men's empathy for male rape victims and increasing women's empathy for female rape victims while educating, encouraging, and empowering participants to intervene in potential rape situations. These modifications to existing rape prevention efforts may be more effective at reducing the prevalence of sexual assault on college campuses.

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Appendix A

Rape Empathy Survey

Each of the following questions presents two statements. For each question, please select the radio button for the statement with which you most agree. (Rape Empathy Scale (RES); Deitz, Blackwell, Daley, & Bentley, 1982)

1. *a) I feel that the situation in which a man compels a woman to submit to sexual intercourse against her will is an unjustifiable act under any circumstances.

b) I feel that the situation in which a man compels a woman to submit to sexual intercourse against her will is a justifiable act under certain circumstances.
2. a) In deciding the matter of guilt or innocence in a rape case, it is more important to know about the past sexual activity of the alleged rape victim than the past sexual activity of the alleged rapist.

*b) It is more important to know about the past sexual activity of the alleged rapist than the past sexual activity of the alleged rape victim in deciding the matter of guilt or innocence in a rape case.
3. a) In general, I feel that rape is an act that is provoked by the rape victim.

*b) In general, I feel that rape is an act that is not provoked by the rape victim.
4. a) I would find it easier to imagine how a rapist might feel during an actual rape than how a rape victim might feel.

*b) I would find it easier to imagine how a rape victim might feel during an actual rape than how a rapist might feel.
5. a) Under certain circumstances, I can understand why a man would use force to obtain sexual relations with a woman.

*b) I cannot understand why a man would use force to obtain sexual relations with a woman under any circumstances.
6. *a) In a court of law, I feel that the rapist must be held accountable for his behavior during the rape.

b) In a court of law, I feel that the rape victim must be held accountable for her behavior during the rape.

7. a) When a woman dresses in a sexually attractive way, she must be willing to accept the consequences of her behavior, whatever they are, since she is signaling her interest in having sexual relations.
- *b) A woman has the right to dress in a sexually attractive way whether she is really interested in having sexual relations or not.
8. a) I would find it easier to empathize with the shame and humiliation a rapist might feel during a trial for rape than with the feelings a rape victim might have during the trial.
- *b) I would find it easier to empathize with the shame and humiliation a rape victim might feel during a trial to prove rape than with the feelings a rapist might have during the trial.
9. a) If a man rapes a sexually attractive woman, he would probably be justified in his actions by the fact that she chooses to have sexual relations with other men.
- *b) If a man rapes a sexually attractive woman, his actions would not be justified by the fact that she chooses to have sexual relations with other men.
10. a) I believe that all women secretly want to be raped.
- *b) I don't believe that any women secretly want to be raped.
11. a) In deciding whether a rape has occurred or not, the burden of proof should rest with the woman, who must prove that a rape has actually occurred.
- *b) In deciding whether a rape has occurred or not, the burden of proof should rest with the man, who must prove that a rape has not actually occurred.
12. *a) I believe that it is impossible for a rape victim to enjoy being raped.
- b) I believe that it is possible for a rape victim to enjoy the experience of being raped, whether she admits it or not.
13. a) I can really empathize with the helplessness a rapist might feel during a rape, since he's at the mercy of forces beyond his control.
- *b) I can really empathize with the helplessness a victim might feel during a rape if all of her attempts to resist the rape have failed.

14. *a) After a rape has occurred, I think the woman would suffer more emotional torment in dealing with the police than the man would.
- b) After a rape has occurred, I think the man would suffer more emotional torment in dealing with the police than the woman would.
15. a) I feel it is impossible for a man to rape a woman unless she is willing.
- *b) I feel it is possible for a man to rape a woman against her will.
16. *a) If a rape trial were publicized in the press, I feel the rape victim would suffer more emotional trauma from the publicity than the rapist.
- b) If a rape trial were publicized in the press, I feel the rapist would suffer more emotional trauma from the publicity than the rape victim.
17. a) Once a couple has had sexual intercourse, then that issue is resolved and it is no longer possible for that man to rape that woman.
- *b) Even if a couple has had sexual intercourse before, if the man forces the woman to have sexual intercourse with him against her will, this should be considered rape.
18. *a) I can understand a wife's humiliation and anger if her husband forced her to have sexual relations with him.
- b) A husband has every right to determine whether sexual relations with his wife occur, even if it means forcing her to have sex with him.
19. *a) If I were a member of the jury in a rape trial, I would probably be more likely to believe the woman's testimony than the man's, since it takes a lot of courage on the woman's part to accuse the man of rape.
- b) If I were a member of the jury in a rape trial, I would probably be more likely to believe the man's testimony than the woman's, since rape is a charge that is difficult to defend against, even if the man is innocent.

* An asterisk denotes the victim-empathic statement within each item.

Please indicate the likelihood of each statement based upon the following scale:
(Malamuth, 1981)

1. How likely is it that you would personally force sex with someone if you could be assured of not being caught or punished?

Very
Likely

Not at all
Likely

1

2

3

4

5

2. How likely is it that you would personally rape someone if you could be assured of not being caught or punished?

Very
Likely

Not at all
Likely

1

2

3

4

5

Please read the passage below and then respond to the following questions:

Sarah's Story, 19 years

I was out one night with a bunch of my friends at a frat party. I was having a lot of fun playing beer pong with some of the guys and dancing with my girlfriends. I must have passed out, because I woke up in one of the frat boy's rooms. I was really confused at first. Then I realized that someone was on top of me. He was penetrating me from behind. It hurt so bad. It felt like my insides were being torn out. I yelled at him to stop, but he wouldn't. He just kept on thrusting. He said, "Oh yeah! You like that! You like that, you dirty girl!" I tried to push him off of me, but I couldn't. Once he had finished, he just picked up his clothes and walked out of the room as if nothing had happened at all. I noticed that there was some blood down there. I tried to hold back the tears as I walked back to my dorm.

1. How sorry do you feel for Sarah?

Not at all

Very Much

1

2

3

4

5

2. How much do you believe Sarah is to blame for what happened?

Not at all

Very Much

1

2

3

4

5

3. How much can you feel what it would be like to be Sarah in this situation?

Not at all

Very Much

1

2

3

4

5

Please respond to the following questions by selecting the radio button for “Yes” or “No.” (Modified Sexual Experiences Survey (SES); Koss & Oros, 1982; McConaghy, Zamir, Manicavasagar, 1993)

1. Have you ever had sexual intercourse with someone when you both wanted to?

2. Have you ever had someone misinterpret the level of sexual intimacy you desired?

3. Have you ever been in a situation where you became so sexually aroused you couldn't stop even though the other person didn't want sexual intercourse?

4. Have you ever been in a situation where someone else became so sexually aroused they couldn't stop even though you didn't want sexual intercourse?

5. Have you ever had sexual intercourse with someone even though they didn't really want to because you threatened to end the relationship?

6. Have you ever had sexual intercourse with someone when you didn't really want to because they threatened to end the relationship?

7. Have you ever had sexual intercourse with someone when they didn't really want to because they felt pressured by your continual arguments?

8. Have you ever had sexual intercourse with someone when you didn't really want to because you felt pressured by their continual arguments?

9. Have you ever obtained sexual intercourse with someone by saying things you didn't mean?

10. Have you ever found out that someone obtained sexual intercourse with you by saying things they didn't really mean?

11. Have you ever used some physical force to make someone make out or hook up with you when they didn't want to?

12. Have you ever had someone use some physical force to make you make out or hook up with them when you didn't want to?

13. Have you ever tried to have sexual intercourse with someone by threatening to use physical force if they didn't cooperate, but for various reasons sexual intercourse did not occur?

14. Have you ever been in a situation where someone tried to have sexual intercourse with you by threatening to use physical force if you didn't cooperate, but for various reasons sexual intercourse did not occur?

15. Have you ever used some degree of physical force to have sexual intercourse with someone when they didn't want to, but for various reasons sexual intercourse did not occur?

16. Have you ever had someone use some degree of physical force to have sexual intercourse with you, but for various reasons sexual intercourse did not occur?

17. Have you ever had sexual intercourse with someone when they didn't want to because you threatened to use physical force?

18. Have you ever been in a situation where someone had sexual intercourse with you when you didn't want to because they threatened to use physical force?

19. Have you ever had sexual intercourse with someone when they didn't want to by using some physical force?

20. Have you ever had sexual intercourse with someone when you didn't want to because they used physical force?

21. Have you ever been in a situation where you obtained sexual acts with someone, such as anal or oral intercourse, when they didn't want to by using threats or physical force?

22. Have you ever been in a situation where someone obtained sexual acts with you, such as anal or oral intercourse, when you didn't want to by using threats or physical force?

23. Have you ever raped someone?

24. Have you ever been raped by someone?

Please read the passage below and then respond to the following questions:

Mike's Story, 20 years

I went out to a party one night with some friends after having a few shots. It was a lot of fun, and I had a really good buzz going. I must have gotten drunker than I realized, because I woke up in one of the bathroom stalls. It took me a second to realize that another guy was in the stall with me. He had pinned me down over the toilet and he was sodomizing me from behind. It hurt like hell. It felt like I was going to explode. I kept yelling at him to stop, but he wouldn't. He just said, "Shut up! You're gonna take it! You know you like it!" I tried to get away, but I couldn't. Once he had finished, he walked out of the bathroom like nothing had happened. I noticed some blood trickling down my leg. I pulled up my pants, walked out of the bathroom, and went back to my apartment.

1. How sorry do you feel for Mike?

Not at all					Very Much
1	2	3	4	5	

2. How much do you believe Mike is to blame for what happened?

Not at all					Very Much
1	2	3	4	5	

3. How much can you feel what it would be like to be Mike in this situation?

Not at all					Very Much
1	2	3	4	5	

The following questions are primarily demographic. Please take some time to respond to them:

1. Age: _____

2. Gender: Male _____ Female _____

3. What year are you in school?

_____ Freshman

_____ Sophomore

_____ Junior

_____ Senior

_____ Other (please specify) _____

4. Race: _____ White (Non-Hispanic origin)

_____ African-American

_____ Native-American

_____ Hispanic, Puerto Rican, or Mexican American

_____ Asian

_____ Alaskan Native

_____ Other (please specify) _____

5. How do you describe your current spiritual/religious affiliation?

- None
- Catholic
- Protestant (please specify) _____
- Jewish
- Muslim
- Other (please specify) _____

6. Please indicate your economic status:

- Lower
- Lower-Middle
- Middle
- Upper-Middle
- Upper

Resources for Students

Thank you for completing this survey.

Your participation in this study will contribute to the body of knowledge regarding rape prevention methods on college campuses. Due to the sensitive nature of this study, some people might find it beneficial to speak to someone about their thoughts, feelings, and reactions to this survey topic. If you would like to speak to someone, here are some local resources that you might find useful:

On-Campus Confidential Resources:

University of St. Thomas Counseling and Psychological Services
Room 356 Murray-Herrick Campus Center (356 MHC)
651-962-6775
www.stthomas.edu/personalcounseling
counseling@stthomas.edu

University of St. Thomas Campus Ministry
<http://www.stthomas.edu/campusministry/default.html>
campusmin@stthomas.edu

Off-Campus Resources

Minnesota Coalition Against Sexual Assault
161 St. Anthony Avenue Suite 1001 St. Paul, MN 55103
651-209-9993
Toll-Free: 1-800-964-8847
www.mncasa.org

On-Campus Places to Report Sexual Violence:

Dean of Students
Room 101 Murray-Herrick Campus Center (101 MHC)
651-962-6050
www.stthomas.edu/deanofstudents
deanstudents@stthomas.edu

Department of Human Resources
Room 217 Aquinas Hall
651-962-6510
www.stthomas.edu/hr
hr_systems@stthomas.edu

Appendix B

Recruitment Notice Script

Take a survey for a chance to win an iPod shuffle

Undergraduates are invited to participate in a voluntary survey regarding students' attitudes about various sexual behaviors. Those who complete the 10-minute survey before Tuesday, Jan. 31 will have the opportunity to enter into a drawing to win an iPod shuffle (2 GB).

The survey is available here.

The purpose of the study is to identify whether new sexual violence prevention programs may be useful at the University of St. Thomas. Any shared information from the survey will be kept confidential and will not be attached to a name or other personal identification.

The information will be used for a graduate student research project. The survey has been approved by St. Thomas' Institutional Review Board.

For more information, email Kerstin Grune.

Appendix C

Consent Form

CONSENT FORM

Please read this form and ask any questions you may have before agreeing to participate in the study.

Please keep a copy of this form for your records.

Project Name	Sexual Violence Clinical Research Project	IRB Tracking Number	282610-1
General Information Statement about the study:			
This survey will ask questions regarding your attitudes about and experiences with different sexual behaviors, including sexual violence.			
You are invited to participate in this research. You were selected as a possible participant for this study because:			
You are an undergraduate student.			
Study is being conducted by:		Kerstin Grune	
Research Advisor (if applicable):		Katharine Hill	
Department Affiliation:		Social Work	
Background Information			
The purpose of the study is:			
To explore undergraduates' beliefs and attitudes about different sexual behaviors, including sexual violence.			
Procedures			
If you agree to be in the study, you will be asked to do the following: <i>State specifically what the subjects will be doing, including if they will be performing any tasks. Include any information about assignment to study groups, length of time for participation, frequency of procedures, audio taping, etc.</i>			
You will be asked to complete an online survey. This survey will take approximately 10 minutes to complete.			
Risks and Benefits of being in the study			
The risks involved for participating in the study are:			
That the survey asks questions about personal and sensitive information. Depending upon your past experiences, you may find the survey questions to be more or less upsetting. You may stop taking the survey at any time, and you may choose to leave any questions blank.			

The direct benefits you will receive from participating in the study are:	
That you will have the opportunity to enter yourself into a drawing for a prize following the completion of the survey.	
Compensation	
Details of compensation (if and when disbursement will occur and conditions of compensation) include:	
<i>Note:</i> In the event that this research activity results in an injury, treatment will be available, including first aid, emergency treatment and follow-up care as needed. Payment for any such treatment must be provided by you or your third party payer if any (such as health insurance, Medicare, etc.).	
Following your completion of the survey, you will have the opportunity to enter a prize drawing. The winner of the drawing will receive the prize in February 2012.	
Confidentiality	
The records of this study will be kept confidential. In any sort of report published, information will not be provided that will make it possible to identify you in any way. The types of records, who will have access to records and when they will be destroyed as a result of this study include:	
The principle investigator and her research chair are the only people who will have access to the survey data. The principle investigator is the only person who will have access to participants' identifying information for the prize drawing. The survey data and records will be destroyed on May 31, 2012, following the completion of this research project.	
Voluntary Nature of the Study	
Your participation in this study is entirely voluntary. Your decision whether or not to participate will not affect your current or future relations with any cooperating agencies or institutions or the University of St. Thomas. If you decide to participate, you are free to withdraw at any time up to and until the date/time specified in the study.	
You are also free to skip any questions that may be asked unless there is an exception(s) to this rule listed below with its rationale for the exception(s).	
N/A	
Should you decide to withdraw, data collected about you	will be used in the study
Contacts and Questions	
You may contact any of the resources listed below with questions or concerns about the study.	
Researcher name	Kerstin Grune
Researcher email	
Researcher phone	
Research Advisor name	Katharine Hill
Research Advisor email	kmhill1@stthomas.edu
Research Advisor phone	651.962.5809
UST IRB Office	651.962.5341
Statement of Consent	
I have read the above information. My questions have been answered to my satisfaction and I am at least 18 years old. I consent to participate in the study. By checking the electronic signature	

box, I am stating that I understand what is being asked of me and I give my full consent to participate in the study.			
Signature of Study Participant <input type="checkbox"/> <i>Electronic signature</i>		Date	
Print Name of Study Participant	N/A		
<hr/>			
Signature of Parent or Guardian (if applicable) <input type="checkbox"/> <i>Electronic Signature</i>		Date	
Print Name of Parent or Guardian (if applicable)	N/A		
<hr/>			
Signature of Researcher <input checked="" type="checkbox"/> <i>Electronic signature*</i>		Date	
Print Name of Researcher	Kerstin Grune		

*Electronic signatures certify that::

The signatory agrees that he or she is aware of the polities on research involving participants of the University of St. Thomas and will safeguard the rights, dignity and privacy of all participants.

- The information provided in this form is true and accurate.
- The principal investigator will seek and obtain prior approval from the UST IRB office for any substantive modification in the proposal, including but not limited to changes in cooperating investigators/agencies as well as changes in procedures.
- Unexpected or otherwise significant adverse events in the course of this study which may affect the risks and benefits to participation will be reported in writing to the UST IRB office and to the subjects.
- The research will not be initiated and subjects cannot be recruited until final approval is granted.

Appendix D

Data Analysis Plan: List of Statistical Tests

Descriptive statistics

Frequency distributions.

1. Participants' gender (nominal; bar chart)
2. Participants' school year (nominal; bar chart)
3. Participants' race (nominal; bar chart)
4. Participants' religious affiliation (nominal; bar chart)
5. Participants' economic status (nominal; bar chart)
6. Participants' Likelihood of Forcing Sex (LF) (nominal; bar chart)
7. Participants' Likelihood of Raping (LR) (nominal; bar chart)
8. Participants' responses to each Rape Empathy Scale (RES) item (nominal; bar charts)
9. Participants' responses to each Sarah's Story item (ordinal; histograms)
10. Participants' responses to each Modified Sexual Experiences Survey (MSES) item (nominal; bar charts)
11. Participants' responses to each Mike's Story item (ordinal; histograms)

Measures of central tendency and dispersion.

1. Participants' age (ratio; histogram)
2. Rape Empathy Scale score (interval; histogram)
 - a. All participants' RES scores
 - b. Male participants' RES scores; Female participants' RES scores
3. Modified Sexual Experiences Survey scores (interval; histogram)

- a. Sexual Victimization Experience sub-scale
 - i. All participants' VMSES scores
 - ii. Male participants' VMSES scores; Female participants' VMSES scores
- b. Sexual Perpetration Experience sub-scale
 - i. All participants' PMSES scores
 - ii. Male participants' PMSES scores; Female participants' PMSES scores
4. Sarah's Story Scale score (interval; histogram)
 - a. All participants' Sarah's Story scores
 - b. Male participants' Sarah's Story scores; Female participants' Sarah's Story scores
5. Mike's Story Scale score (interval; histogram)
 - a. All participants' Mike's Story scores
 - b. Male participants' Mike's Story scores; Female participants' Mike's Story scores

Inferential statistics

Chi-square.

1. Gender
 - a. all RES items
 - b. Likelihood of Forcing Sex (LF)
 - c. Likelihood of Raping (LR)
 - d. Sorry for Female Victim (Sarah Scale item)

- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

2. Year in School - All

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

3. Year in School – Freshmen v. Seniors

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)

- f. Feel for Female Victim (Sarah Scale item)
 - g. all MSES items
 - h. Sorry for Male Victim (Mike Scale item)
 - i. Blame for Male Victim (Mike Scale item)
 - j. Feel for Male Victim (Mike Scale item)
4. Year in School – Freshmen v. Others
- a. all RES items
 - b. Likelihood of Forcing Sex (LF)
 - c. Likelihood of Raping (LR)
 - d. Sorry for Female Victim (Sarah Scale item)
 - e. Blame for Female Victim (Sarah Scale item)
 - f. Feel for Female Victim (Sarah Scale item)
 - g. all MSES items
 - h. Sorry for Male Victim (Mike Scale item)
 - i. Blame for Male Victim (Mike Scale item)
 - j. Feel for Male Victim (Mike Scale item)
5. Race - All
- a. all RES items
 - b. Likelihood of Forcing Sex (LF)
 - c. Likelihood of Raping (LR)
 - d. Sorry for Female Victim (Sarah Scale item)
 - e. Blame for Female Victim (Sarah Scale item)
 - f. Feel for Female Victim (Sarah Scale item)

- g. all MSES items
 - h. Sorry for Male Victim (Mike Scale item)
 - i. Blame for Male Victim (Mike Scale item)
 - j. Feel for Male Victim (Mike Scale item)
6. Race – White v. Non-White
- a. all RES items
 - b. Likelihood of Forcing Sex (LF)
 - c. Likelihood of Raping (LR)
 - d. Sorry for Female Victim (Sarah Scale item)
 - e. Blame for Female Victim (Sarah Scale item)
 - f. Feel for Female Victim (Sarah Scale item)
 - g. all MSES items
 - h. Sorry for Male Victim (Mike Scale item)
 - i. Blame for Male Victim (Mike Scale item)
 - j. Feel for Male Victim (Mike Scale item)
7. Religion – All
- a. all RES items
 - b. Likelihood of Forcing Sex (LF)
 - c. Likelihood of Raping (LR)
 - d. Sorry for Female Victim (Sarah Scale item)
 - e. Blame for Female Victim (Sarah Scale item)
 - f. Feel for Female Victim (Sarah Scale item)
 - g. all MSES items

- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

8. Religion – None v. Some

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

9. Religion – Catholic v. Non-Catholic

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)

- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

10. Economic Status - All

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

11. Economic Status – Low v. High

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)

j. Feel for Male Victim (Mike Scale item)

12. LF – None v. Some

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

13. LR – None v. Some

- a. all RES items
- b. Likelihood of Forcing Sex (LF)
- c. Likelihood of Raping (LR)
- d. Sorry for Female Victim (Sarah Scale item)
- e. Blame for Female Victim (Sarah Scale item)
- f. Feel for Female Victim (Sarah Scale item)
- g. all MSES items
- h. Sorry for Male Victim (Mike Scale item)
- i. Blame for Male Victim (Mike Scale item)
- j. Feel for Male Victim (Mike Scale item)

Correlation.

1. RES
 - a. Victimization MSES
 - b. Perpetration MSES
 - c. Age
 - d. Sarah Scale
 - e. Mike Scale
2. Victimization MSES
 - a. Perpetration MSES
 - b. Age
 - c. Sarah Scale
 - d. Mike Scale
3. Perpetration MSES
 - a. Age
 - b. Sarah Scale
 - c. Mike Scale
4. Sarah Scale
 - a. Age
 - b. Mike Scale
5. Mike Scale
 - a. Age

T-Test.

1. Gender

- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
2. Year in school – Freshmen v. Seniors
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
3. Year in school – Freshmen v. Other Years
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
4. Race - White v. Non-White
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale

5. Religion – None v. Some
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
6. Religion – Catholic v. Non-Catholic
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
7. Economic Status - Lower & Lower-Middle v. Upper-Middle & Upper
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
8. LF - None v. Some
 - a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES

- e. Mike Scale
9. LR - None v. Some
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale

ANOVA.

1. Year in School
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
2. Race
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
3. Religion
- a. RES
 - b. Sarah Scale

- c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
4. Economic status
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
5. LF
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
6. LR
- a. RES
 - b. Sarah Scale
 - c. Victimization MSES
 - d. Perpetration MSES
 - e. Mike Scale
7. Year in School, Race, Religion, & Economic Status and Rape Empathy Scale scores