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Claims Of Sexual Assault On College Campuses: Impact Of Educational Evidence & Victim Prototypicality On Attributions Of Blame

Heather J. O'brien

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CLAIMS OF SEXUAL ASSAULT ON COLLEGE CAMPUSES: IMPACT OF
EDUCATIONAL EVIDENCE & VICTIM PROTOTYPICALITY ON ATTRIBUTIONS
OF BLAME

By

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Bachelor of Science, Montana State University, 2016

A Thesis

Submitted to the Graduate Faculty

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for the degree of

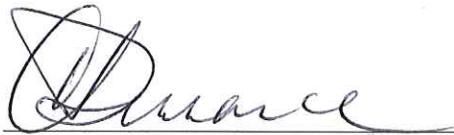
Masters of Science

Grand Forks, North Dakota

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Cheryl Terrance

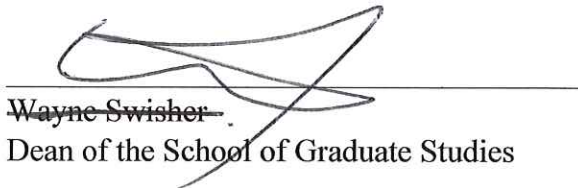


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This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.



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Title Claims of Sexual Assault on College Campuses: Impact of Educational
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Heather O'Brien
April 24, 2018

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ABSTRACT

Sexual assault is one of the most prevalent but under-reported crimes in the United States and sexual assaults are even more common on college campuses (RAINN, 2016).

Although both laws and campus student policies may be violated, very few perpetrators are ultimately punished (Lonsway & Archambault, 2012). Lack of investigation and prosecution of these cases may in part arise out of myths surrounding sexual assault. These myths may be challenged when scientific evidence is presented. Whether such evidence can undermine myths and prototypical notions of a sexual assault victim remains equivocal. To this end, the current study employed a 2 (victim prototypicality: prototypical vs. non-prototypical) x 3 (educational evidence: basic vs. neurobiological vs. control) between subjects design. Serving as members of a “university committee,” participants read one of two sexual assault police reports that varied the prototypicality of the victim: prototypical or non-prototypical. Within the victim prototypicality condition, participants viewed one of three educational evidence videos: basic, neurobiological, or control. Overall, less blame was attributed to the victim when she was presented as prototypical or when educational evidence was imparted. Interestingly, a three-way interaction emerged such that men’s perceptions of the victim and offender were more likely to be impacted by watching an educational video as opposed to a control when presented with a non-prototypical victim. Implications of these findings were discussed.

CHAPTER I

INTRODUCTION

Sexual assault is one of the most prevalent but under reported crimes in the United States. According to the Rape Abuse and Incest National Network (RAINN), sexual assault is an umbrella term that may include rape, attempted rape, any unwanted sexual touching, and/or forced sexual behavior (RAINN, 2016). As of 2013, the Federal Bureau of Investigation's (FBI) uniform crime report (UCR) defines rape as "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim" (FBI, 2013). Prior to 2012, this definition read, "the carnal knowledge of a female forcibly and against her will" (FBI, 2013). In addition to being outdated, the older definition limited victims to those who were female, those who actively fought back, and those who were attacked by a male perpetrator. The new definition is much more inclusive of a broad range of rape scenarios by including male victims, female perpetrators, and those who may not be competent to legally give consent (FBI, 2013). These definitions may vary slightly by state. Although rape is just one form of sexual assault, it is the most commonly compiled statistic and therefore is still essential to discuss parallel to sexual assault.

Prevalence

It can be difficult to estimate the prevalence of rape and sexual assault for several reasons. The varying and changing definitions from year to year and jurisdiction to

jurisdiction make it difficult to know exactly how many people are affected. Determining incidence and prevalence can also be difficult because most reports rely on victim and police interpretations of the crime (Burgess, Regehr, and Roberts, 2013). Burgess et al. (2013) explains that reporting systems such as the UCR require that the victim “perceive a rape has occurred, decide it was an illegal act, decide whether or not to disclose it, and police (or researcher) must decide whether the act meets the definition of an illegal act” (Burgess et al., 2013, p. 360) It is only when the researcher or police (depending on who is collecting data) agrees that an act happened, was illegal, and fulfilled the definition of the crime will it be recorded and eventually counted for a measurement system (Burgess et al. 2013).

When compiling these crimes for the UCR, the FBI includes instances of rape, attempted rape, and assaults with intent to commit rape in their statistics and figures (FBI, 2013). According the UCR, in 2010, there were 84,767 forcible rapes reported to police in the United States (FBI, 2010). This equates to 1 in 5 women and 1 out of every 71 men being victims in their lifetime (NSVRC, 2015).

While sexual assault crimes are occurring at high rates, it is estimated that only 63% of those crimes in the U.S. and 90% on college campuses are ever reported to law enforcement (NSVRC, 2015). Lonsway and Archambault (2012) found that, in the criminal justice system, only .4-5.4% of cases go to trial and only .2-5.2 result in a conviction (Lonsway & Archambault, 2012). These statistics show that many people are affected by this crime throughout their lifetime. The statistics also demonstrate why this is such an important topic to understand, research, and ultimately improve. While sexual

assault is pervasive among the general public, it is even more prevalent on college campuses.

Sexual assault on college campuses. Sexual assaults are more prevalent on college campuses than among the general public (NSVRC, 2015). According to the National Sexual Violence Resource Center (NSVRC), 1 in 5 women and 1 in 16 men will be sexually assaulted while attending university (NSVRC, 2015). That is nearly three times the rate of sexual assault among the general public (RAINN, 2016). Statistics also show that approximately 50% of all of these assaults happen during the first few months of each semester (RAINN, 2016). According to RAINN, only 20% of female students report their sexual assault to police (2016). That means that 4 out of 5 women who experience sexual assault on college campuses are not reporting the crime (RAINN, 2016). Burgess et al. (2013) suggest that denial, fear of retaliation from the perpetrator, and fear of police not believing them are reasons why many victims choose not to report their sexual assault.

According to a study by the National Institute of Justice (NIJ) there are several factors that are unique to college communities that leave some students at higher risk of victimization (2008). A 25% risk increase is associated with women in sororities, especially those that live in a sorority house (NIJ, 2008). Freshmen and sophomores experience the most victimization of all college education levels (NIJ, 2008). Among college students, more than half of all sexual assaults happened on Friday and Saturday night between midnight and 6 am (NIJ, 2008).

Another major factor that influences sexual assault on college campuses is alcohol. According to the National Institute on Alcohol Abuse and Alcoholism (NIAAA),

“almost 60 percent of college students ages 18–22 drank alcohol in the past month and almost 2 out of 3 of them engaged in binge drinking during that same timeframe” (NIAAA, 2015, p. 1). The NIJ reports that alcohol use by a potential offender corresponds with aggression and misinterpretation of “sexual advances” while alcohol use by a potential victim is associated with risk taking behavior (NIJ, 2008). While this in no way justifies sexual assaults on college campuses, it does provide some insight into how the factors inherent within college student communities may contribute to a culture of sexual assault.

College disciplinary committees. College disciplinary committees are institutionally sanctioned groups of faculty and students that address and adjudicate claims of student misconduct within that educational institution. Every university explicitly outlines, often through a student handbook, what the policies of the institution are. Most universities have a section on sexual misconduct that includes sexual assault, though each university’s policies may differ. There has been much controversy over the years regarding the ethicality and legality of college disciplinary committees regarding due process and Title IX violations because it is sometimes viewed as bias toward one side or the other (Hogan, 2009). It has been determined, however, that as long as the disciplinary committee is giving both sides the opportunity to defend their case, giving the accused adequate time to prepare and respond to accusations, and the complainant student’s case is heard and tried, the process is just as fair, ethical, and legal as any judiciary hearing would be (Hogan, 2009).

Given the prevalence of sexual assaults among college populations, college disciplinary committees and others are often tasked with determining culpability. This setting

provides a unique context to examine decision making in these cases because the burden of proof is one of a preponderance of evidence. As such, coupled with often ambiguity in allegations of assault, determinants of blame and responsibility may be especially influenced by observer beliefs and victim characteristics.

Taken together, these statistics show that sexual assault is a pervasive crime especially among college populations. Because of this, college disciplinary committees, and others must make important decisions regarding blame and responsibility. Though allegations need to be assessed according to the evidence, a number of extra-legal factors may impact the decision making process. Chief among the extra-legal factors are rape myths that may be endorsed by the fact finders and thus may impact determinants of culpability.

Rape Myth Acceptance

One important issue surrounding sexual assault cases is the acceptance of rape myths by police, lawyers, jury members, friends, family, and even the victim themselves. Rape myths are defined as “stereotypical, prejudicial, or false beliefs about rape, rape victims, and rapists that are generally untrue but widely held” (Burt, 1980 p.217). These false beliefs that do not have any scientific support can be extremely harmful to the victim’s emotional and physical coping, choosing to report, and case as it makes its way through the criminal justice system. Burt (1980) examined a few different rape myths that have not really changed in the last 35 years. Although there are several rape myths that have been identified over the years, the following three myths have the most support to refute them.

The first rape myth is that women lie or give false reports (Burt, 1980). Lonsway, Archambault, and Lisak. (2009) found that only 2-8% of all reports turn out to be false.

Belknap (2010) also noted that since so few sexual assaults are reported to begin with, it is extremely unlikely that a false claim is going to be made. Because of these findings and for the psychological well-being of the victim, the Rape Victim Advocates (RVA) posit that it is important for any family, friends, law enforcement, or those who would take a report to respond by believing the victim (RVA, 2016).

The second rape myth is that if the victim didn't fight back they must have enjoyed or wanted the assault (Burt, 1980). One study looked at sexual assaults that were first reported to emergency rooms with sexual assault nurse examiners (SANE) present (Carr et al. 2014). They found that 57% of victims reported that they did not fight back at all during the assault and only 19% reported that they actively fought back throughout the entire assault (Carr et al. 2014). There are a couple explanations for why victims may not fight back during a sexual assault. One reason could be that they chose not to fight back in hopes of reducing further threat or injury from their perpetrator (Carr et al. 2014). Another explanation could be a phenomenon known as tonic immobility or rape induced paralysis (Campbell, 2012; Carr et al. 2014). Tonic immobility is a documented neurobiological response to high-fear traumatic situations where the body experiences elevated breathing and complete muscle paralysis in an attempt to keep the organism alive (Campbell, 2012; Carr et al. 2014). It is estimated that 37-42% of survivors report experiencing this paralysis during their assault (Campbell, 2012; Carr et al. 2014).

The final common rape myth is that women cause or deserve rape based on risky or inappropriate behavior or that the victim was "asking for it" (Burt, 1980; RVA, 2016). Almost all sexual assault survivor resources emphasize that a sexual assault is never the victim's fault. Any time sexual contact that is not consensual occurs, the perpetrator is at

fault and a sexual assault occurred (National Child Traumatic Stress Network (NCTSN), 2010). Drinking, wearing provocative clothing, being at a party, or any other circumstance does not give consent (NCTSN, 2010).

A number of studies have specifically examined how acceptance of these rape myths can change and how they can impact the perception of a case. One study specifically looked at the relationship between rape myths and the situational factor of the victim's relationship to the perpetrator. Frese, Moya, and Megias. (2004) examined the effect that acceptance of rape myths had on the attitudes about situational factors of a rape case. They had participants respond to a rape myth acceptance questionnaire and then read one of three possible cases that only differed by relationship: marital acquaintance, acquaintance, or stranger rape (Frese et al., 2004). The study ended with a survey about the participants attitudes about the case. The authors found that participants who endorsed high rape myth acceptance attributed more blame to the victim, estimated the victim's trauma to be less severe, and were less likely to think the case should be reported to police (Frese et al., 2004). They also found that rape myth acceptance and the context of rape interacted such that the lower the rape myth acceptance is the less likely they will be to take in situational characteristics as the victims fault. However, they found that situational factors can still influence people with low rape myth acceptance to blame the victim. This means that someone who endorses low rape myth acceptance will be less likely to place fault on the victim but the relationship is still a factor that can influence those individuals.

Another study relating to rape myth acceptance was conducted by Smith, Wilkes, and Bouffard (2016) to examine campus law enforcement's rape myth acceptance and

training on perceptions of sexual assault cases. After surveying officers on demographics, training, and various measures of rape myth acceptance, they found that officers who had specialized training on victim sensitivity and trauma associated with victimization, were less likely to accept rape myths (i.e. lower rape myth acceptance) (Smith et al. 2016). In addition, rape myth acceptance also predicted the degree to which officers believed that victims were partially to blame in sexual assault cases (Smith et al. 2016). Given the pervasive nature of rape myths, the endorsement of such beliefs may lead to notions of a prototypical rape victim and scenario.

Perceptions of ‘Typical’ Rape and Rape Victims

Because rape myth acceptance can have such a significant impact on how victims are viewed, the issue of victim and situation typicality arises. Expectations of what a ‘typical’ rape and victim should look like can also influence how people view survivors of sexual assault. Prototype theory is the idea that people can be categorized based on perceptions of typical or atypical behavior (Fiske & Taylor, 1991). Russell, Ragatz, and Kraus (2012) were able to use prototype theory to explain juror perceptions of prototypical and non-prototypical battered person defendants. In the same way that Russell et al. (2012) showed that jurors expect battered defendants to fit a prototype, victims of sexual assault are also expected to fit a prototype (Krahe, 1991).

A study conducted by Wenger & Bornstein (2006) examined the effect of victim substance use and victim-offender relationship on perceptions of the case. Participants in this study read a summary of a sexual assault trial where age and use of alcohol were varied as well as whether they were first time acquaintances or had been dating for 3 months (Wenger & Bornstein, 2006). The authors found that if the victim had been sober

at the time of the assault then they were viewed as more credible than a victim who had been drinking at the time. Regardless of sobriety or the victim's relationship to the perpetrator, female participants rated the victim as significantly more credible than the male participants did. Finally, low rape myth acceptance was also associated with more favorable attitudes towards the victim.

Mancini & Pickett (2016) collected data using an online sample of 537 demographically diverse people. The participants were surveyed on several factors including offender reformability, relative harm to the victim, dispositional cause of sex offending, and sex crime typifications. Their main finding was that being a female victim was assumed to be a cause of the sexual offense. Essentially, they found that a significant number of people believe that simply being a female is cause enough to be sexually offended. Through the findings of this study, it can be concluded that the prototypical victim is assumed to be female.

Anderson (2007) examined perceptions of stranger rape and acquaintance rape scenarios by asking participants to write about what they thought embodied a typical rape. The researcher manipulated whether the participant was told to write about a stranger or acquaintance rape of a male or female victim. After coding all of the writings, Anderson found that when asked to conceptualize a typical female rape, participants responded in terms that pointed to a stranger rape rather than an acquaintance rape. This shows that most people still adhere to the rape myth that most rapes are carried out by strangers rather than by somebody the victim already knows, meaning that when people think of a 'typical rape,' the perpetrator is a stranger.

In a similar study highlighting the significance of victim and offense stereotypicality, McKimmie et al. (2014) gave participants 1 of 4 different case summaries. All four scenarios were the same except for offense stereotypicality and victim stereotypicality. To manipulate offense stereotypicality, the rape was perpetrated by either a stranger or an acquaintance. They manipulated the victim stereotypicality by the victim fighting back and cooperating with police or not fighting back and not cooperating with police (McKimmie et al. 2014). They found that in acquaintance rape scenarios, having a stereotypical victim was associated with a higher likelihood of the participant believing the defendant was guilty, more positive attitudes about the victim, and less positive attitudes about the defendant (McKimmie et al. 2014).

Taken together, the research demonstrates that rape myth adherence and typicality of the situation can influence the perceptions of the parties involved in the sexual assault. The average lay person, however, may not understand the experiences of a rape victim who falls outside of preconceived notions of a prototypical rape or who fails to fit within the parameters of a prototypical victim. Given that the experiences of rape victims vary considerably, expert testimony may help educate laypeople as to the diversity of victims' responses to rape. For this reason, expert evidence may be introduced to aid fact-finder.

Expert Evidence

Expert testimony is provided by a qualified professional regarding scientific or technical information that is not common knowledge to the fact finders (e.g. judge or jury). Although it could greatly help the prosecution, expert testimony is rarely used in sexual assault cases because it is overlooked or not deemed necessary by attorneys (Lonsway, 2005). When experts are used, they are typically called by the prosecution to

rebut the defense's claim, that the victim was not acting like a 'real victim,' by demonstrating that the victim's behavior was consistent with being sexually assaulted (Lonsway, 2005). Nevertheless, the introduction of such testimony may help explain the seemingly inconsistent responses of rape victims.

In view of the fact that people are typically unaware of the reactions and experiences of rape victims, it is important to review a few studies that have looked at expert testimony pertaining to rape trauma syndrome (RTS). Rape trauma syndrome describes the physical, psychological, and behavioral symptoms that can result from a sexual assault (Frazier & Borgida, 1988). Frazier and Borgida (1988) administered a sexual assault questionnaire regarding post-traumatic stress disorder (PTSD) and post-rape symptoms to a group of experts (those who would be qualified to testify as experts) and a group of non-experts (the average person with no experience in the area) (Frazier & Borgida, 1988). Not surprisingly, they found that non-experts were not well informed on issues relating to rape and were significantly less knowledgeable than the expert group (Frazier & Borgida, 1988). This finding is important because it empirically showed that the average jury or disciplinary committee member would not know facts pertaining to sexual assault symptoms. Jenkins & Schuller (2007) wanted to know if a negative drug test would influence a jury's verdict on a sexual assault based on whether or not an expert witness explained the significance of that evidence. They found that without an expert to put the negative evidence into context, the jury was more likely to be lenient with the defendant; if an expert witness did explain that a negative test result does not necessarily mean that there weren't drugs present, then the negative drug test was balanced out by the expert witness (Jenkins & Schuller, 2007). The authors were able to show that expert

witnesses do have an impact on jury decisions especially when complicated scientific evidence is presented in tandem. Hans (2007) also showed that even complex scientific phenomena can be comprehended for evaluative use by the jury

The following sections will discuss some of the research on rape trauma syndrome and trauma memory that an expert witness may bring up when they testify. These are often included in expert testimony to counteract the idea that these victim behaviors are counterintuitive to what is expected of a victim.

Rape trauma syndrome. Rape trauma syndrome (RTS) refers to the somatic, behavioral, and psychological responses that rape and attempted rape victims experience (Burgess & Holmstrom, 1974). RTS is a form of post-traumatic stress disorder (PTSD) and is typically used as the medical term given to this response but it is not officially defined in the Diagnostic and Statistical Manual-Five (DSM-V). The American Academy of Experts in Traumatic Stress (AAETS) reports that intense fear, intrusive memories, distressing dreams, flashbacks, denial, numbness, lack of emotion, depression, isolation, change in sleeping patterns, difficulty concentrating, hyperarousal, lack of trust, irritability, shame, guilt, hatred, and changes in eating habits can all be symptoms that are often present with RTS. Extensive research has been conducted on some issues regarding RTS. Research has also been conducted on how RTS affects the victim and the case in the criminal justice setting.

Research conducted by Sutherland and Scherl (1970) mapped the typical response victims have when presenting with RTS symptoms. They found that there are 3 main phases that a victim goes through after the trauma of a rape. The first stage is the acute reaction phase. This phase occurs in the minutes, hours, and days immediately following

a rape where the victim is still in shock. This phase is typically characterized by agitation, incoherence, and unpredictability. The second stage begins when the initial heightened arousal and anxiety, associated with the acute reaction phase, calm back down to baseline levels and the victim can settle back in to their everyday lives. The second phase is referred to as outward adjustment. This phase is characterized by the victim outwardly appearing to have resolved the psychological pain from the assault. The victim will often tell people that they are fine and that they do not need to talk about what happened. The victim typically sets aside all feelings and emotions that arise from the event in an attempt to return to their normal lives. The third and final phase involves integration and resolution. This phase does not occur until the victim internalizes the psychological pain, experiences symptoms of depression, and ultimately has to seek help with coping. This phase is characterized by the victim ultimately finding peace with what has happened to them and actually moving forward with their lives. These findings were the basis for the proposal, acceptance, and integration of the rape trauma syndrome classification.

Sutherland and Scherl's (1970) and Burgess and Holmstrom's (1974) seminal work on RTS informed Burgess's (1983) research showing the diagnostic criteria needed for RTS and the similarities between RTS and PTSD symptomatology. Burgess (1983) showed that, based on clinical data, there are 4 major diagnostic criteria (based on the DSM-III) that match PTSD and can be used to diagnose RTS. The first criteria is having a 'stressor of significant magnitude.' The multitudinous clinical research on the trauma associated with rape shows that because it is such an intimate violation, the victim feared or experienced injury, and the victim was psychologically terrorized, the trauma of rape can easily be classified an extreme stressor.

The second criteria is the victim re-experiencing the trauma. This usually takes the form of intrusive and recurrent memories of the event, dreams, and flashbacks. The third diagnostic criteria is “a numbing of responsiveness to or reduced involvement with the environment (Burgess, 1983).” This is usually expressed as a flat affect or numbness regarding the event and a lack of interest in activities that they used to enjoy. The final criteria is slightly more complicated. Two of the following symptoms must be present after the rape that were not present before: exaggerated startle response, disturbance in sleep pattern, internalized guilt or self-blame, impairment of memory or concentration, avoidance of activities that could trigger memories, and anxiety regarding events that symbolize the trauma. In addition to the value of scientific evidence for RTS, Tetreault (1989) was able to show that expert testimony on RTS is vital to counteracting jury misconceptions about rape, rape victims, and rapists based on societal biases.

Despite this, RTS has been subject to criticism and debate regarding its utility in terms of educating laypeople as to the consequences and impacts of sexual assault on victims. Waddle and Parts (1989) address two major methodological flaws with RTS evidence. First, if the victim has been raped in the past, they could still be suffering symptoms from that rape rather than a new one. This suggests that the symptoms a victim expresses after an assault may be left over from a previous assault rather than the more recent assault in question. Second, “although the presence of RTS indicates that a person has been a victim of rape, the absence of the syndrome does not necessarily indicate that a person has not been raped’ (Waddle and Parts, 1989 p.404).

In response to criticism, other forms of education may be better suited to informing laypeople as to the effects of sexual assault. One such form of evidence is

based on the research of Campbell (2012). In her work, Campbell (2012) focuses on the psychophysiological responses of rape victims. Given the lack of “syndrome” nomenclature, such evidence may be better suited in addressing the experiences of rape victims than RTS.

Neurobiological Evidence. During the reporting process and throughout the criminal justice system, rape victims are expected to provide an accurate account of the events of their trauma (Hardy, Young, and Holmes, 2009). However, because memory is encoded less efficiently during a trauma, victims often have a difficult time recalling the assault in a coherent and logical order. The idea of trauma memory is oftentimes not understood by either the victim or the person taking the victims report. In addition, the fact finders in a case often do not understand the memory and behavior of a victim. The following sections provides a neurobiological example of scientific evidence that could be used to inform fact finders.

When the body perceives a threat to life, the fight-or-flight response of the sympathetic nervous system begins (Campbell, 2012). The hypothalamus, pituitary gland, and adrenal gland work together to form the HPA axis that responds to threat by releasing hormones to prepare the body to fight, run, or freeze (Campbell, 2012; O’Mara, 2011; Smith et al. 2006). The fight, flight, or freeze response is accounted for by the sympathetic nervous system’s need to survive which could mean the body chooses to fight back against the attacker, run to get away from the situation, or if necessary it may freeze which is associated with the tonic immobility (discussed earlier) (Campbell, 2012). The four main hormones that are released by the HPA axis are catecholamines, cortisol, opioids, and oxytocin (Campbell, 2012). The most recognizable catecholamine is

adrenalin. The catecholamines are primarily responsible for the fight or flight response (O'Mara, 2011). Cortisol increases energy levels in the body to keep fighting or running (O'Mara 2011). Opioids are natural pain killers made by the body; in this case, they are released to fight the physical and emotional pain associated with a threat or trauma. The release of oxytocin is intended to regulate the mood of the individual and promote positive feelings to counteract the trauma (Campbell, 2012).

The hormones, at very high levels in the body, help the body survive a perceived threat but also impair cognition and can severely impact memory. The increase in catecholamines and opioids in the body impair rational thinking and cause flat affect (Campbell, 2012). These hormones also have an influence on the structures responsible for memory, specifically the hippocampus and amygdala (Campbell, 2012; O'Mara, 2011). In the non-threatened human, the hippocampus is responsible for processing and encoding sensory information. In addition, the hippocampus essentially consolidates the information into coherent memories that can be retrieved at a later time (Campbell, 2012). The amygdala is responsible for helping encode and consolidate information that has emotions tied to it; emotional memory is more difficult to consolidate because the brain has to process and try to understand them as they are being consolidated (Campbell, 2012). Both of these structures are very sensitive to any hormonal fluctuations let alone the extreme hormonal fluctuations of the fight-or-flight response (Campbell, 2012; O'Mara, 2011). Memory can still be retrieved but the process is slow, confusing, not in order, and difficult to understand until the victim has time to piece all of the memory traces together (Campbell, 2012).

When there is a perceived threat to the body, as in a sexual assault, the HPA axis releases the flood of hormones for flight-or-flight and the encoding and consolidation of memory become impeded (Campbell, 2012). All of this accounts for the behavior and attitudes of a victim who is reporting a sexual assault. Hardy, Young, and Holmes (2009) had a few findings related to trauma memory and reporting. They found that the participants who reported having a fight, flight, or freeze response were also likely to report fragmented memories when they reported to police (Hardy et al, 2009). In addition, participants who had fragmented memory were perceived by police as more incoherent (Hardy et al, 2009). Finally, fragmented memory was associated with an increased likelihood of the victim dropping the case or not filing charges (Hardy et al, 2009).

In conclusion, rape is a pervasive part of American culture especially on college campuses. The crime and the victim are often undermined by the average layperson's acceptance of rape myths and misconceptions about typical rapes and victim behavior. For these reasons, it was important to empirically test how these perceptions could be impacted by victim prototypicality and educational evidence.

Purpose

The purpose of this study was to focus on expanding the current literature on sexual assault on college campuses specifically in the areas of educational evidence and victim prototypicality. This study specifically focused on sexual assault on college campuses. Because research is typically conducted using a college student sample and sexual assaults are most likely to occur during the college years, it was appropriate to rely upon a college student population. Considering that the research was using a college

student population, this study also used a mock college disciplinary committee jury. College disciplinary committees are made up of faculty and staff but typically include several student body representative members as well. For the purposes of this study, participants watched a narrated PowerPoint educating them on relevant issues regarding sexual assault rather than using written or recorded testimony from an expert witness. Because this study used a disciplinary committee setting rather than a mock jury setting, it was more appropriate to provide the information materials through an educational style presentation rather than an actual expert witness.

Past research has shown that there are gender effects when studying perceptions of sexual assault victims (Wenger and Bornstein, 2006; Anderson and Quinn, 2009; White and Robinson-Kurpui, 1999). Because of the previous findings, it was anticipated that the current study would find main effects regarding the gender of the participant. Specifically, women participants were be more likely to believe the victim regardless of victim prototypicality (prototypical vs. non- prototypical). A main effect for victim prototypicality was also anticipated. Specifically, it was expected that participants exposed to the prototypical victim would attribute less blame to the victim than those exposed to the non-prototypical victim. It was also predicted that a main effect would emerge for expert education (basic vs. neurobiology vs. control) such that those who were in the neurobiology condition would be more likely to believe the victim than those in the basic or control conditions. Participants in the basic condition would be more likely to believe the victim than participants in the control condition. Finally, it was anticipated that the neurobiology educational evidence would be especially influential when the victim is non-prototypical.

CHAPTER II

METHOD

Participants

Participants (men, $n = 81$; women, $n = 243$) were undergraduate students from the University of North Dakota. Participants' ages ranged from 18-28 ($M = 19.31$, $SD = 1.394$) and the majority of participants were White/Caucasian (92.9%). In addition, participants rated themselves as very to somewhat liberal (30.1%), moderate (30.7%), or somewhat to very conservative (39.2%). Students received class course credit in exchange for their participation.

Design

This study utilized a 2 (victim prototypicality: prototypical vs. non-prototypical) x 3 (educational evidence: basic, neurobiological, control) between subjects design. Participants were randomly assigned to one of six conditions where they were asked to read about a prototypical or non-prototypical victim and then watch one of three educational evidence videos: control, basic, or neurobiological.

Vignette. This study employed a vignette that varied victim prototypicality (prototypical vs. non-prototypical). Participants were randomly assigned to one of the two vignette conditions. The vignette (Appendix C) resembled a police report. The police report described a situation where a college women was sexually assaulted in her dorm room after a football game. Both vignettes were identical with the exception of the victim

prototype manipulation. Victim prototypicality was manipulated by altering whether the victim reported in a timely manner, whether the victim fought back during the assault and whether the victim easily remember the assault. This report was similar to a report that a disciplinary committee would actually receive.

Expert Video. Within prototypicality condition, participants were randomly assigned to one of three educational evidence (basic vs. neurobiology vs. control) conditions. In the basic condition, the participants watched a video that presented the basic information on sexual assault such as statistics, prevention, and intervention (Appendix E). In the neurobiological condition, participants watched a video that provided education on the neurobiology of sexual assault. Specifically, the video discussed hormonal fluctuations, tonic immobility, and trauma memory as they relate to sexual assault (Appendix F). These videos represented educational evidence that could possibly be presented to a disciplinary committee. Conversely, in the control condition, the participants watched a neutral TedTalk video, *Why You Should Love Statistics*, that discussed math and statistics (Appendix D). Videos were of comparable length ranging from 7-13 minutes.

Measures

Demographics. Participants were asked to complete a demographic questionnaire that assessed several common personal items such age, gender, ethnicity, level of education etc. (appendix J).

Manipulation Check. Participants were asked to indicate the name of the victim, the name of the perpetrator, and how long it took for the victim to report in the scenario

that they read. Only participants who successfully passed the manipulation checks were included in the analyses.

Victim Blame. Participants completed four items that assessed the level of culpability assigned to the victim on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Specifically, participants were asked to what extent they agree that the victim was (a) responsible for, (b) to blame for, (c) deserved what happened and (d) to what extent they feel anger toward the victim. These items were collapsed and a composite score was derived ($\alpha=.75$). Higher scores indicated a greater level of perceived culpability of the victim.

Perpetrator Blame. Participants completed six items that assessed their perceptions of the level of blame attributed to the perpetrator on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). Participants were asked to what extent they agree that the perpetrator is (a) responsible for, (b) to blame for the situation, (c) was wrong, (d) could have prevented the situation, (e) to what extent they feel anger toward the perpetrator, and (f) to what extent they feel legal action should be taken against the perpetrator.. These items were collapsed and a composite score was derived ($\alpha=.84$). Higher scores reflected higher levels of blame.

Victim Credibility. Participants answered five questions (Wenger & Bornstein, 2006) that were on a 7-point Likert scale assessing the credibility of the victim on a scale from 1 (strongly disagree) to 7 (strongly agree). Participants were asked how likely they think it was that (a) the victim communicated that she did not want to have sex, (b) the victim was a willing participant, (c) the perpetrator physically forced the victim, (d) the victim was lying, and (e) the victim was interested in having intercourse. These items

were collapsed and a composite score was derived ($\alpha=.83$). Items were coded such that higher scores indicated a greater level of perceived credibility.

Victim Behavior. Participants answered three questions on a 7-point Likert scale assessing the behavior of the victim on a scale from 1 (not at all) to 7 (very much). Participants were asked to what extent they thought (a) the victim led the perpetrator on, (b) the victim was asking for it, and (c) the victim's memory makes them think she is lying. These items were collapsed and a composite score was derived ($\alpha=.75$). Higher scores reflected stronger beliefs that the victim acted inappropriately.

Illinois Rape Myth Acceptance. This study also utilized the Illinois rape myth acceptance (IRMA) scale to assess acceptance of rape myths (Payne, Lonsway, & Fitzgerald, 1999; McMahon & Farmer, 2011). This is measured on a 7-point Likert from (1) "strongly disagree" to (7) "strongly agree." Items on the IRMA were collapsed and a composite score was derived ($\alpha=.91$). The scale is assessed where a higher score represents a greater rejection of rape myths (appendix I).

Procedure

Participants signed up for the study through SONA system. After granting informed consent, participants were randomly assigned to read one of two possible vignettes varying by victim prototypicality (prototypical vs. non-prototypical). Following the report, participants were randomly assigned to one of three educational evidence videos (control, basic, or neurobiology). For the basic or neurobiology conditions, the participant watched the provided video regarding sexual assault. Participants in the control condition watched a TedTalk video titled *Why You Should Love Statistics*.

After the video, participants were asked to answer a series of questions that measured victim blame, perpetrator blame, and victim credibility. After completing the questionnaires, the participants were debriefed and released from the study.

CHAPTER III

RESULTS

Manipulation Checks

A total of 336 participants completed the study. Of these, ten participants failed the three manipulation check questions and were removed from the analyses. In addition, two participants did not complete the demographics questionnaire and were removed from the analyses. Analyses were subsequently conducted on the remaining 324 participants (men, $n = 81$; women, $n = 243$).

Assessing Victim Blame

A 2 (prototypicality: prototypical vs. non-prototypical) X 3 (educational evidence: control vs. basic vs. neurobiological) X 2 (participant gender) analysis of variance (ANOVA) was conducted on perceptions of victim blame. Results indicated a significant main effect for prototypicality, $F(1,312) = 9.96, p = .002$, partial $\eta^2 = .03$. Participants in the prototypical victim condition ($M = 1.20, SD = .05$) attributed less blame to the victim than participants in the non-prototypical victim condition ($M = 1.40, SD = .05$). Results also indicated a significant main effect for educational evidence video, $F(2,312) = 7.99, p < .001$, partial $\eta^2 = .05$, Tukey's post-hoc comparisons indicated that participants that viewed the control video ($M = 1.48, SD = .06$) attributed more blame to the victim than participants in both the basic video condition ($M = 1.23, SD = .06$) and the neurobiological video condition ($M = 1.19, SD = .05$). However, victim blame scores

between the basic video condition and the neurobiological video condition failed to differ from each other. Finally, results indicated a significant main effect for gender, $F(1,312) = 8.62, p = .004$, partial $\eta^2 = .03$. Men ($M = 1.39, SD = .05$) attributed more blame to the victim than did women ($M = 1.20, SD = .03$).

These main effects were qualified by a significant two-way interaction between prototypicality and educational evidence video, $F(2,312) = 3.75, p = .025$, partial $\eta^2 = .02$. This interaction was further qualified by a significant three-way interaction between prototypicality, educational evidence video, and gender, $F(2,312) = 3.25, p = .040$, partial $\eta^2 = .02$. This three-way interaction was deconstructed into two-way interactions involving prototypicality and educational evidence at each level of participant gender (Figure 1).

Although the two-way interaction for women failed to attain significance, $F < 1$, results were significant for men, $F(2,75) = 4.247, p = .018$, partial $\eta^2 = .10$. Simple main effects of educational evidence video at each level of prototypicality yielded significance for the non-prototypical condition, $F(2,75) = 7.52, p = .001$, partial $\eta^2 = .17$. Follow-up post-hoc comparisons indicated that men assigned more victim blame in the control condition ($M = 1.96, SD = .89$) than in the basic condition ($M = 1.37, SD = .47$). When the victim was non-prototypical, men's victim blame rating in the control and basic conditions failed to differ from the neurobiological condition ($M = 1.26, SD = .36$).



Figure 1. Victim blame three-way interaction. Three-way interaction deconstructed into two-way interactions involving prototypicality and educational evidence video at each level of gender.

Assessing Perpetrator Blame

A 2 (prototypicality: prototypical vs. non-prototypical) X 3 (educational evidence video: control vs. basic vs. neurobiological) X 2 (participant gender) analysis of variance (ANOVA) was conducted on perceptions of perpetrator blame. Results indicated a significant main effect for prototypicality, $F(1,312) = 11.30, p = .001, \text{partial } \eta^2 = .04$. Participants in the prototypical victim condition ($M = 6.66, SD = .05$) attributed more blame to the perpetrator than those in the non-prototypical victim condition ($M = 6.41, SD = .06$). Results also indicated a significant main effect for educational evidence video, $F(2,312) = 5.39, p = .005, \text{partial } \eta^2 = .03$. Tukey's post-hoc comparisons indicated that participants in the control video condition ($M = 6.36, SD = .07$) attributed less blame to the perpetrator than those in both the basic video condition ($M = 6.67, SD = .07$) and the

neurobiological video condition ($M = 6.57, SD = .06$). However, perpetrator blame scores between the basic video condition and the neurobiological video condition failed to differ from each other. Finally, results indicated a main effect for gender, $F(1,312) = 5.44, p = .020$, partial $\eta^2 = .02$. Women ($M = 6.62, SD = .04$) attributed more blame to the perpetrator than did men ($M = 6.45, SD = .07$).

These main effects were qualified by a significant two-way interaction between prototypicality and educational evidence video, $F(2,312) = 3.18, p = .043$, partial $\eta^2 = .02$. This interaction was further qualified by a significant three-way interaction between prototypicality, educational evidence video, and gender, $F(2,312) = 3.44, p = .033$, partial $\eta^2 = .02$. This three-way interaction was deconstructed into two-way interactions involving prototypicality and video at each level of participant gender (Figure 2).

Although the two-way interaction for women failed to attain significance, $F < 1$, results were significant for men, $F(2,75) = 3.45, p = .037$, partial $\eta^2 = .08$. Simple main effects of educational evidence video at each level of prototypicality yielded significance for the non-prototypical condition, $F(2,75) = 5.14, p = .008$, partial $\eta^2 = .12$. Follow-up post-hoc comparisons indicated that men assigned less blame to the offender in the control condition ($M = 5.87, SD = 1.00$) than in the basic condition ($M = 6.71, SD = .40$). When the victim was non-prototypical, men's rates of offender blame in the control and basic conditions failed to differ from the neurobiological condition ($M = 6.27, SD = .65$). Overall, participants assigned a high level ($M = 6.58, SD = .62$) of blame to the perpetrator, $t(323) = 74.67, p < .001$

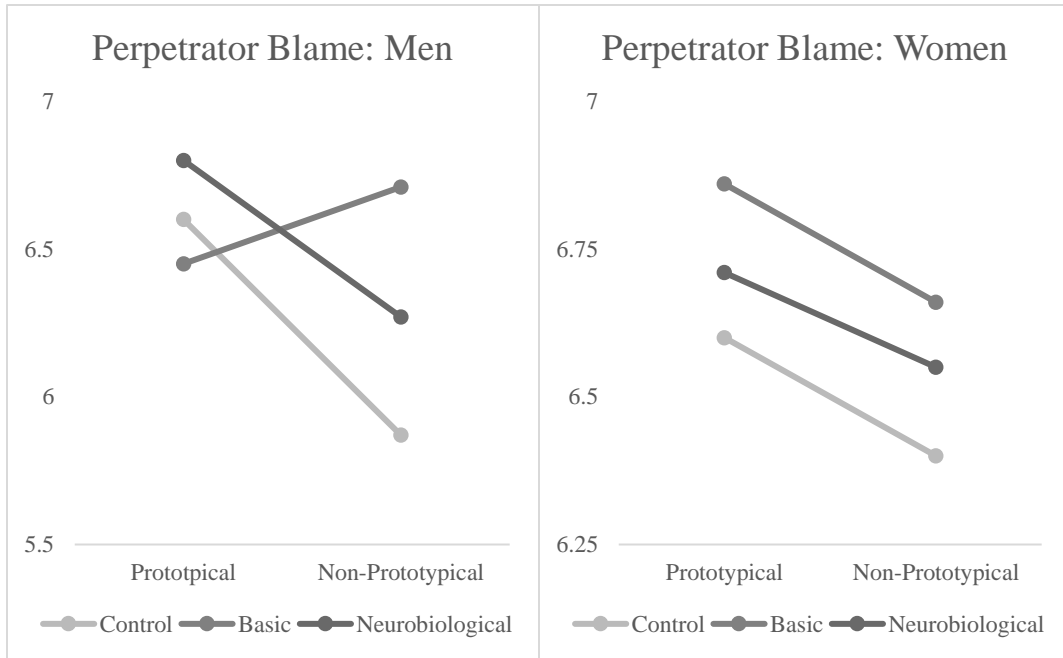


Figure 2. Perpetrator blame three-way interaction. Three-way interaction deconstructed into two-way interactions involving prototypicality and educational evidence video at each level of gender.

Assessing Victim Credibility

A 2 (prototypicality: prototypical vs. non-prototypical) X 3 (educational evidence video: control vs. basic vs. neurobiological) X 2 (participant gender) analysis of variance (ANOVA) was conducted on perceptions of victim credibility. Results indicated a significant main effect for prototype, $F(1,312) = 9.61, p = .002, \text{partial } \eta^2 = .03$. Participants that were presented with a non-prototypical victim ($M = 5.83, SD = .07$) rated the victim as significantly less credible than those that read about a prototypical victim ($M = 6.15, SD = .07$). Results also indicated a significant main effect for educational evidence video, $F(2,312) = 6.27, p = .002, \text{partial } \eta^2 = .04$. Tukey's post-hoc comparisons indicated that participants that viewed the control video ($M = 5.74, SD = .09$) rated the victim as significantly less credible than those in both the basic video condition ($M = 6.19, SD = .09$) and the neurobiological video condition ($M = 6.04, SD =$

.09). However, victim credibility scores between the basic video condition and the neurobiological video condition failed to differ from each other. Finally, results indicated a significant main effect for gender, $F(1,312) = 15.27, p < .001, \text{partial } \eta^2 = .05$. Women ($M = 6.19, SD = .05$) rated the victim as significantly more credible than did men ($M = 5.79, SD = .09$).

These main effects were qualified by a significant two-way interaction between prototype and educational evidence video, $F(2,312) = 4.06, p = .018, \text{partial } \eta^2 = .02$. This two-way interaction was further qualified by a significant three-way interaction between prototype, educational evidence video, and gender, $F(2,312) = 4.17, p = .016, \text{partial } \eta^2 = .03$. This three-way interaction was deconstructed into two-way interactions involving prototypicality and video at each level of participant gender (Figure 3).

Although the two-way interaction for women failed to attain significance, $F < 1$, results were significant for men, $F(2,75) = 3.77, p = .028, \text{partial } \eta^2 = .09$. Simple main effects of video at each level of prototypicality yielded significance for the non-prototypical condition, $F(2,75) = 5.17, p = .008, \text{partial } \eta^2 = .12$. Follow-up post-hoc comparisons indicated that the victim was assigned less credibility in the control condition ($M = 4.93, SD = 1.35$) than in the basic condition ($M = 6.12, SD = .65$). When the victim was non-prototypical, the men's ratings of victim credibility in the control and basic conditions failed to differ from the neurobiological condition ($M = 5.67, SD = .57$). Overall, participants assigned a high level ($M = 6.58, SD = .62$) of credibility to the victim, $t(323) = 46.63, p < .001$.

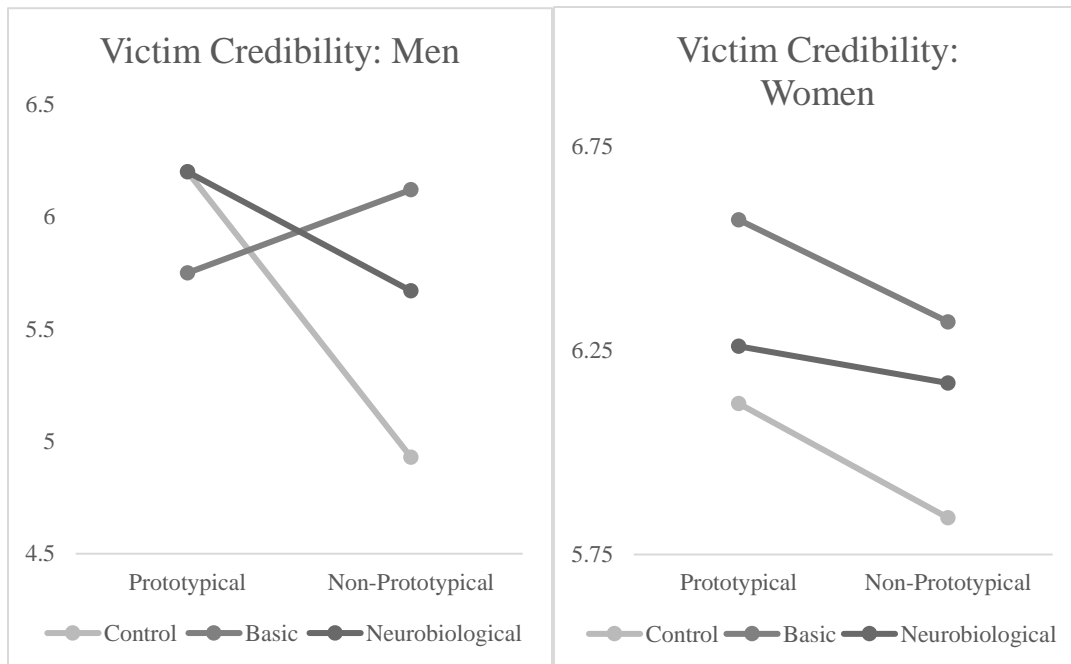


Figure 3. Victim credibility three-way interaction. Three-way interaction deconstructed into two-way interactions involving prototypicality and educational evidence video at each level of gender.

Assessing Victim Behavior

A 2 (prototypicality: prototypical vs. non-prototypical) X 3 (educational evidence video: control vs. basic vs. neurobiological) X 2 (participant gender) analysis of variance (ANOVA), was conducted on perceptions of victim behavior. Results indicated a significant main effect for prototype, $F(1,312) = 13.73, p < .001, \text{partial } \eta^2 = .04$. Participants that were presented with a prototypical victim ($M = 1.78, SD = .082$) rated the victim behavior significantly more favorable than participants that read about the non-prototypical victim ($M = 2.21, SD = .08$). Results also indicated a significant main effect for educational evidence video, $F(2,312) = 3.58, p = .029, \text{partial } \eta^2 = .02$. Tukey's post-hoc comparisons indicated that participants that viewed the control video ($M = 2.21, SD = .10$) rated the victim behavior significantly less favorable than participant that viewed the basic video ($M = 1.83, SD = .10$). Finally, results indicated a significant main effect

for gender, $F(1,312) = 23.64, p < .001$, partial $\eta^2 = .07$. Women ($M = 1.71, SD = .06$) rated the victim behavior significantly more favorable than did men ($M = 2.28, SD = .10$).

No significant interactions emerged from the results.

Illinois Rape Myth Acceptance Scale

The twenty-two items assessing rape myth acceptance were analyzed using a 2 (prototypicality: prototypical vs. non-prototypical) X 3 (educational evidence video: control vs. basic vs. neurobiological) X 2 (participant gender) analysis of variance (ANOVA). Results indicated a significant main effect for educational evidence video, $F(2,312) = 5.47, p = .005$, partial $\eta^2 = .03$. Tukey's post-hoc comparisons indicated that participants that viewed the control video ($M = 2.60, SD = .09$) endorsed higher levels of rape myth acceptance than participants that viewed the basic video ($M = 2.18, SD = .09$) and participants that viewed the neurobiological video ($M = 2.32, SD = .09$). No significant differences were demonstrated between those that viewed the basic video and those that viewed the neurobiological video.

Results also indicated a main effect for gender, $F(1,312) = 29.80, p < .001$, partial $\eta^2 = .09$. Men ($M = 2.65, SD = .09$) endorsed higher levels of rape myth acceptance than did women. ($M = 2.08, SD = .05$). No significant interactions emerged in the results. Overall, participants tended to have low levels ($M = 2.21, SD = .85$) of rape myth endorsement, $t(323) = -37.71, p < .001$.

CHAPTER IV

DISCUSSION

Sexual assaults are occurring at a higher rate on college campuses than among the general public (NSVRC, 2015). As a result, it is important to examine factors that can impact college students' perceptions of sexual assault victims and perpetrators. Those evaluating the legitimacy of a victim's claims may be uninformed regarding elements that may impact a victim's decision to report a sexual assault. Consequently, efforts to educate laypeople may be particularly helpful. In this regard, within the context of a college disciplinary committee, the purpose of this study was to examine the role of victim prototypicality, sexual assault education received, and participants' gender on attributions of blame assigned to a victim and perpetrator in a sexual assault case.

Prototype theory has been used to explain perceptions of victims that evaluators of guilt may endorse (Fiske & Taylor, 1991; Russell et al., 2012). Mancini & Pickett (2016) demonstrated that the majority of participants perceived the typical victim to be female. The characteristic of being female alone can be reason enough to be a victim of a sexual offense (Mancini & Pickett, 2016). In a similar vein, Anderson (2007) found that most people believe that the prototypical sexual assault is committed at the hands of a stranger. In addition, McKimmie et al. (2014) found that those exposed to an acquaintance rape and a stereotypical victim viewed the victim positively and more credible and viewed the perpetrator negatively. In line with this research, the current

study examined the role of victim prototypicality by manipulating whether the victim fought back, reported to police in a timely manner, and had a solid memory of the assault. It was hypothesized that the prototypical victim would be viewed more positively than the non-prototypical victim.

Overall, this hypothesis was supported. Several main effects of prototypicality emerged from the results. Participants presented with a prototypical victim attributed less blame to the victim, attributed more blame to the perpetrator, rated the victim as more credible, and rated the victim's behavior as more favorable than participants that were presented with a non-prototypical victim. In court cases, the success of the defense depends on "establishing the defendant as a legitimate victim who has responded rationally to her situation" (Terrance & Matheson, 2003, p.43). It is just as important in the context of a college disciplinary committee to ensure that the factfinders see the victim as legitimate regardless of whether her behavior was prototypical or non-prototypical.

Branscombe and Weir (1992) showed that when a woman behaves inconsistently with her gender stereotype, she is attributed more blame than when she behaves consistently. But, if a woman doesn't fight back hard enough, then she is also blameworthy for the event (Branscombe and Weir, 1992). Previous research has found that victim blame, especially in cases of acquaintance rape, can be tied to benevolent sexism because those victims are judged as violating the stereotypical gender roles (Viki, Abrams, and Masser, 2004; Abrams, Viki, Masser, Bohner, 2003). Benevolent sexism is defined as "a set of interrelated attitudes toward women that are sexist in terms of viewing women stereotypically and in restricted roles but that are subjectively positive in

feeling tone (for the perceiver) and also tend to elicit behaviors typically categorized as prosocial or intimacy seeking” (Glick & Fiske, 1996). After manipulating victim and gender stereotypicality. Masser, Lee, and McKimmie (2010) found that victims that did not fit the stereotypical gender role were more likely to be perceived negatively with strong benevolent sexism scores when the victim behavior was also non-stereotypical. This may explain why participants generally viewed the victim more negatively when she was non-prototypical; participants may have viewed the non-prototypical victim’s behavior as incongruent with victimhood. It can therefore be argued that attributions of blame may be influenced by levels of benevolent sexism. Future research should include a measure of benevolent sexism such as that found in the Ambivalent Sexism Inventory (ASI; Glick and Fiske, 1996). Incorporating this scale could further explain the relationship between sexism and victim blame.

As past research and the current study demonstrated, characteristics of the victim or situation can influence participants’ perceptions of the victim and perpetrator. However, it can also be demonstrated that the average layperson may not understand the experiences of victims. This may especially be the case in situations where victims fail to fall within the schema of a prototypical victim. It has therefore been suggested that expert testimony may help educate laypeople on the complexities of victims’ responses to rape. Frazier & Borgida (1988) conducted research that, as expected, indicated that experts in the field of sexual assault are more knowledgeable than the average non-expert. It has also been demonstrated that, when presented with complex scientific phenomena by an expert witness, jury members can comprehend and utilize the information for decision making (Jenkins & Schuller, 2007; Hans, 2007).

Given that the experiences of rape victims vary considerably, it was expected that expert testimony, in the form of educational videos, could help educate participants regarding the array of possible psychological and behavioral responses sexual assault victims may have. Furthermore, this may impact the participants' perceptions of both the victim and the perpetrator. To this end, participants were exposed to one of three educational videos. The control video was a TedTalk titled *Why You Should Love Statistics*. The second video included very basic information regarding the crime of sexual assault. The final video explained the neurobiology of sexual assault and why victims may act the way they do during and after an assault. It was hypothesized that participants in the neurobiological video condition would have more favorable perceptions of the victim than those in the basic and control conditions. Further, it was hypothesized that those in the control condition would have the least favorable perceptions of the victim. This hypothesis was only partially supported by the results.

Overall, results from the present study indicated that participants presented with the control video attributed more blame to the victim, attributed less blame to the perpetrator, rated the victim as less credible, rated the victim's behavior as less acceptable, and endorsed higher levels of rape myth acceptance than those who were presented with either the basic or neurobiological expert education videos. In general, those in the control condition viewed the victim less favorably and the perpetrator more favorably than those in the basic and neurobiological conditions. Surprisingly, there were no significant differences between the basic condition and the neurobiological condition. Those provided with some form of expert education benefited more than those provided with no expert education. It is possible that merely priming participants on themes of

sexual assault is sufficient to make them more understanding of the victim's situation. It is also possible that, despite the basic condition providing very basic information about sexual assault and the neurobiological condition providing an extremely in depth examination of the physiological and psychological responses to sexual assault trauma, the videos might not have been sufficiently distinct enough to elicit different responses. Essentially, it is possible that the manipulations were not drastic enough to elicit the desired response. Nonetheless, the information imparted in the basic video appeared to sufficiently educate participants as to the nature of sexual assault.

One of the first studies of expert testimony in sexual assault courtroom cases found that juries exposed to expert testimony during direct examination were more likely to find the defendant guilty (Spanos, DuBreuil, and Gwynn, 1991). More recently, Schuller, Ryan, Krauss, and Jenkins (2013) demonstrated the importance of expert testimony by showing that when the victim did not report in a timely manner and negative forensic evidence was shown, participants rated the report as more persuasive and were more likely to find the perpetrator guilty than when expert testimony was not present. Two major points can be gleaned from the previous research on expert testimony in relation to the current study on expert education. First, future research should include measures of guilt as a more definitive measure. Second, in line with the current research findings, some educational evidence is better than no educational evidence. However, future research should further evaluate why the different forms of education did not yield significantly different perceptions of the victim or perpetrator.

Furthermore, regardless of video condition, participants were more supportive of the victim and less sympathetic to the perpetrator. It is possible that the university has

already done a thorough job of educating students, especially incoming freshman, on the intricacies and concerns surrounding campus sexual assaults. It is also possible that the university fosters an environment that is supportive and believing of victims and takes a no-tolerance approach to offenders. If this is the case at this university, it is possible that the expert educational videos did not have much of an effect because the students already knew a lot about the topic and just needed to be primed to think about it in order to perceive the victim in a more positive light. Future research should take in to consideration the campus atmosphere around sexual assault and related topics when determining the efficacy of the expert educational videos.

Past research has also shown that education in the form of entertainment programs may be beneficial to student's understanding of sexual assault norms and self-efficacy of sexual assault prevention (Hust et al., 2017; Christensen, 2014). Hust et al. (2017), incorporated social cognitive and social norm theories into educational mini-magazines and found that a combination of both theories produced the most self-efficacy regarding prevention of sexual assault and more accurate perceptions of sexual assault norms. Christensen (2014) utilized critical pedagogy and theatre for social change theories to engage students in an active learning environment. The qualitative analysis showed that students who engaged in this form of sexual assault theatre education took more responsibility in preventing sexual assault, were more conscious of the language they and their peers use that perpetuates sexual assault acceptability, and actively wanted to find a solution to the problem of sexual assault on their campus (Christensen, 2014). Though education in the form of entertainment is a novel idea, future research in the context of

prototypical vs. non-prototypical victims is warranted as another possible efficacious form of sexual assault education.

Another purpose of the current study was to explore participant gender differences in perceptions of the victim and perpetrator. A host of previous findings exist that demonstrate that women are being more supportive of victims than men. When looking at victim stereotypicality, Wenger and Bornstein (2006) found that, regardless of the victim's sobriety or relationship to the offender, women rated the victim as significantly more credible than did the men that participated in their study. Anderson and Quinn (2009) surveyed medical students on perceptions of rape victims and found that women had significantly more favorable attitudes toward rape victims than men. Another study assessed perceptions that college students and young professionals in the mental health field held about rape victims and found that undergraduate males had the most negative perceptions and female mental health professionals had the most positive perceptions (White and Robinson-Kurpui, 1999). They also showed that regardless of age or professional status, men, overall, had the most negative attitudes toward the victims of rape compared to women (White and Robinson-Kurpui, 1999).

Because of the multitude of supporting research findings, the current study hypothesized that women would have a more positive impression of the victim and a negative impression of the perpetrator. This hypothesis was also supported by the findings of the current study. The results showed that women attributed less blame to the victim, attributed more blame to the perpetrator, rated the victim as more credible, rated the victim's behavior more favorably, and endorsed lower rape myth acceptance than did the men that participated.

The aforementioned findings may be attributed to gender differences in empathy and similarity to the victim. Miller, Amacker, and King (2010), after surveying college aged women, developed a causal model that showed that sexual assault history, perceived similarity, rape victim empathy, and rape myth acceptance contribute to culpability attributions. While looking at the cycle-of-blame, Sinclair and Bourne (1998) found that women displayed more empathy and endorsed fewer rape myths than men. Finally, Smith and Frieze (2006) demonstrated that women have higher empathy scores for victims while men have higher empathy scores for the offender. They also showed that higher victim empathy scores were associated with less responsibility being attributed to the victim and higher perpetrator empathy scores were associated with more responsibility being attributed to the victim (Smith and Frieze, 2006). Moreover, with the support of past research, it can be argued that gender differences emerged due to differences in empathy. Future research should incorporate a measure of empathy such as the Positive and Negative Affect Scales (PANAS) (Watson, Clark, and Tellegen, 1988) or an empathy scale such as that used by Haegerich and Bottoms (2000). These scales could help provide insight into the effects of empathy on victim and perpetrator perceptions in the context of the present study.

In addition to empathy, another social psychological theory to consider is the need for cognition. Beck (2010) suggested that people, in general, are more satisfied with and persuaded by psychological explanations for behavior when neuropsychological language and images of the brain are presented. Further, Minahan and Sidelecki (2016) examined the effect of need for cognition when participants read about a complicated psychological phenomenon when neuropsychology was present versus absent to explain it. They found

that as need for cognition increased, participants were less satisfied with explanations even when neuropsychological evidence was presented (Minahan and Sidelecki, 2016). This suggests that, in the current study, those with a high need for cognition were not impressed with the neurobiological explanation of sexual assault victim behavior and saw it as overly simplified (Beck, 2010; Minahan and Sidelecki, 2016). Future research should incorporate a need for cognition scale (NCS, Cacioppo and Petty, 1982). In the context of the present study, this scale could help further explain the effects of need for cognition on victim and perpetrator perceptions.

All of these main effect findings were qualified by significant three-way interactions between prototypicality, video, and participant gender. The simple effects revealed that men's perceptions of victim blame, perpetrator blame, and victim credibility were worse for those in the control condition compared to both the basic and neurobiological conditions when exposed to the non-prototypical victim. This means that the effect of the videos was influential when the victim did not fit the stereotypical mold of how a victim should act during and after an assault. It also means that the educational evidence videos were most influential for men. This is important because it shows that sexual assault education, in general, can have an effect on men and it can help induce more positive perceptions of the victim even if, and especially if, the victim is non-prototypical. Overall, though the victim was viewed as legitimate, the extent to which she was measured as a prototypical victim, the type of expert testimony, and participant gender influenced perceptions of blame.

Limitations and Future Research

While the findings of the present study contribute to the sexual assault literature, it is important to note some methodological limitations and future research directions. One major limitation of this research was that the participant pool was relatively homogenous and was conducted at one small Midwestern university. The majority of participants were white women. Though Bornstein (1999) argued that there are minimal differences between college students and the general public, future research should make an effort to obtain a more heterogeneous sample.

Another limitation was the presentation of the educational evidence. While every effort was made to keep the videos as similar as possible, the way they were presented could potentially have affected the participants' perceptions of its credibility. Specifically, both expert education video presentations were read by a woman. Neal, Guadagno, Eno, and Brodsky (2012) found that female expert witnesses are viewed as less credible than their male counterparts especially if she is seen as low in likeability (warmth). Because the participants never saw the speaker, just the PowerPoint slides, they may have viewed the speaker as less warm and likeable and therefore less credible. Future research should consider using a man's voice for the presentation, showing a video of the speaker presenting the evidence (such as in a courtroom setting), or use a different form of education altogether.

Another limitation was the between subjects design of the study. More insight could have been gleaned from a pre-test/post-test within subjects design especially for rape myth acceptance dependent variable. Future research should include an IRMA scale

pre-test and post-test. While the IRMA was included in this study, comparisons were difficult to justify without pre-test data.

Though the behaviors that indicated a prototypical victim vs. a non-prototypical victim were strategic, there are other behaviors, victim characteristics, situational characteristics, and combinations of the three that could also be considered for future research. Including other victim characteristics such as gender (Mancini & Pickett, 2016), race, sexual orientation, or age may illicit different responses from participants. In addition, victim relationship to the perpetrator (Anderson, 2007), location of rape, use of alcohol or drugs by the victim, offender, or both, and the presence of witnesses, are all examples of potential situational characteristics that could be used in future research. Future research is afforded a virtually unlimited list of characteristic combinations of a sexual assault victim and situation that can make it prototypical or non-prototypical.

Based on their meta-analytic findings, Anderson and Winston (2005) suggested that “sexual assault education interventions for college students tend to be more effective when they are longer, presented by professionals, and include content addressing risk reduction, gender-role socialization, or provision of information and discussion of myths and facts about sexual assault (p. 385).” Based on these findings, future research should incorporate some of these factors into educational interventions. The current research could be expanded upon by explicitly stating the credentials of the expert speaker in the educational evidence videos, addressing risk reduction, and discussing myths and facts about sexual assault more in depth. These findings suggest that the basic and neurobiological conditions could be combined for a more thorough form of sexual assault education intervention on a college campus.

CHAPTER V

CONCLUSION

Sexual assault occurs on college campuses at high rates but is one of the least reported crimes. Nobody deserves to be a victim of a crime nor do they deserve to be a victim of the system by being blamed, shamed, not believed, or not supported. While victim blaming is not a phenomena that can be solved quickly, it is important to conduct research to understand why those in positions of judgement hold the perceptions of victims and perpetrators that they do. The current study examined extra-legal factors that may be influential in attributions of blame. The results showed that when presented with a non-prototypical victim, men's perceptions of the crime were more likely to be impacted by watching an educational video as opposed to a control. These are important findings as it provides a starting point for a promising vein of sexual assault research. Victim prototypicality, expert educational evidence, and observer gender may not only influence perceptions of the crime, victim, and perpetrator, but also have far reaching effects in the culture of how sexual assault victims are treated. In the future, this research may help colleges provide the most effective sexual assault education to students, staff, and disciplinary committee members. This research puts college campuses one step closer to providing justice for sexual assault victims.

APPENDICES

Appendix A

Invitation to Participate

You are invited to participate in a research study conducted by Heather O'Brien and Dr. Cheryl Terrance in the Department of Psychology at the University of North Dakota. We are interested in student perceptions regarding a sexual assault case on a college campus. This study will take place in a classroom in Columbia hall where you will complete your participation independently in a group setting. Responses will be completely anonymous and will take around 45-60 minutes to complete. If you are 18 years of age or older and would like to participate in the study, please sign up through SONA.

Appendix B Informed Consent

THE UNIVERSITY OF NORTH DAKOTA CONSENT TO PARTICIPATE IN RESEARCH

TITLE: Student Perceptions of a Campus Sexual Assault Case
PROJECT DIRECTOR: Heather O'Brien
PHONE #: 701-777-3921
DEPARTMENT: Psychology

A person who is to participate in the research must give his or her informed consent to such participation. This consent must be based on an understanding of the nature and risks of the research. This document provides information that is important for this understanding. Research projects include only subjects who choose to take part. Please take your time in making your decision as to whether to participate. If you have questions at any time, please ask.

Approximately 400 people, students from the University of North Dakota will take part in this online and in person study at UND. If you join this study, you will be asked to read a police report, watch a video, and respond to various questions regarding your perceptions of a sexual assault case. The purpose of this research is to examine how people make judgments about sexual assault cases.

Your participation in the study will last approximately 45-60 minutes. You may experience frustration that is often experienced when completing surveys. The scenario you are reading, and some of the questions may be of a sensitive nature, and you may therefore become upset as a result. However, such risks are not viewed as being in excess of "minimal risk." If, however, you become upset by questions, you may stop at any time or choose not to answer a question. If you would like to talk to someone about your feelings about this study, the UND Counseling Center provides services to UND students and for those that live on campus. You may contact them at 701-777-2127. The Counseling Department also operates a clinic that is available to the Grand Forks community, and can also provide referrals. The Counseling Department can be reached at 701-777-3745.

You may not benefit personally from being in this study. However, we hope that, in the future, other people might benefit from this study because results will provide a better understanding of how sexual assaults are handled on college campuses.

If you are a student at UND, you may receive extra credit for your time for the psychology course of your choice in which you are currently enrolled. For participants who are from UND, and participating in this study for extra credit, if you choose not to participate in this study you may earn extra credit in your course in other ways. Please ask your instructor, who will provide you with comparable assignments that you may

choose to complete (e.g. writing assignments, participation in other research experiments etc.).

You will not have any costs for being in this research study, nor will you receive monetary compensation. University of North Dakota and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

The records of this study will be kept private to the extent permitted by law. In any report about this study that might be published, you will not be identified. Study results will be presented in a summarized manner so that you cannot be identified. Your study record may be reviewed by government agencies, and the University of North Dakota Institutional Review Board. The only other people who will have access to the data are the research investigators (Dr. Cheryl Terrance, Heather O'Brien) conducting the study.

No identifying information about participants will be reported or kept. Confidentiality will be maintained by storing your responses in a password protected file. Your name is not being collected. Data will be stored on a password protected computer or locked filing cabinet in the Social Psychology Research Lab. Data will be stored for a minimum of three years, after which it will be deleted.

Your participation is voluntary. You may choose not to participate or you may discontinue your participation at any time without penalty or loss of benefits to which you are otherwise entitled. Your decision whether or not to participate will not affect your current or future relations with the University of North Dakota.

The researcher conducting this study is Heather O'Brien. If you have questions, concerns, or complaints about the research please contact the research advisor, Cheryl Terrance at 777-3921 during the day. If you have questions regarding your rights as a research subject, or if you have any concerns or complaints about the research, you may contact the University of North Dakota Institutional Review Board at (701) 777-4279. Please call this number if you cannot reach research staff, or you wish to talk with someone else.

Appendix C Vignettes and Manipulation/Attention Check

You are being asked to serve as a member of a student disciplinary committee. Any member of the university community may file a complaint against a student for an alleged violation of the student code. A complaint should be submitted as soon as possible after the event takes place or when an individual is made aware of a potential event of concern.

Please carefully review all case information. An accused student is not obligated to participate in interviews or hearings and this should not be used to infer responsibility. Rather, you are asked to consider the case information and determine whether the student violated a particular section of the code. Unlike a criminal case, the standard of proof is much lower and is known as *more likely than not*. In other words, if you imagine yourself weighing the evidence on an imaginary scale, you must be more than 50% sure that the student violated the policy to find them responsible. You do not need to be 100% or even 75% sure, just more likely than not.

If doubt remains after considering all information presented, you should give the accused student the benefit of the doubt. Naturally, the more serious the incident, the more careful you must be.

Follow your best judgement, though it may be that not every piece of information serves as proof. You must, in all cases, ensure that a student who is not responsible is not unjustly treated through a responsible finding.

University Student Relations Committee

Investigation Report

***Bolded: Prototypical victim manipulation**

Incident Date: 9-14-16

Incident Description: Complaint that Accused Student sexually assaulted Complainant Student.

Location: Complainant Student's dorm room

Incident Reported: 10-10-16 (**9-15-16**)

Report: #2016-406

Initial incident reported by whom? Complainant Student (CS)

Involved Parties

Complainant Student - Jessica

Accused Student - Adam

Witness 1 - Brittany

Investigation Summary

Jessica filed a complaint with the University Police Department (UPD) and the Dean of Students Office (DSO) on 10-10-16. **(9-15-16)**

The complaint alleges that on September 14, 2016 at Jessica's dorm room that Adam sexually assaulted Jessica. The complaint indicates on multiple occasions that Jessica indicated she did not want to remove her clothing or have sexual contact with Adam.

The complaint indicates that Adam penetrated Jessica's vagina with his penis.

DSO met with Jessica, Adam, and Brittany (witness) in review of the complaint.

Jessica indicated that the only person she has spoken to about the incident with Adam is Brittany.

Brittany shared that she is friends and roommates with Jessica.

Adam declined to provide information to DSO during the investigation process.

The information provided by Jessica and Brittany indicate that at approximately 10pm on Sept. 9, 2016, Adam walked Jessica back to her campus resident hall dorm room.

According to the complainant, Adam and Jessica went to Jessica's dorm after attending the university's football game earlier that evening. Adam and Jessica are friends who met at freshman orientation earlier that week. Adam walked Jessica home to her dorm room and followed her inside. Jessica's roommate, Brittany, was not home at the time.

Adam came in to Jessica's dorm room and continued chatting and making friendly conversation while both Jessica and Adam were sitting on Jessica's bed.

Adam started kissing Jessica. Jessica told Adam that she did not think that it was a good idea for them to kiss. Adam continued to kiss Jessica.

Adam started removing Jessica's clothing. Jessica told Adam that she did not want to remove her clothing. **(Jessica started struggling against Adam to keep her clothes on).** Adam then removed his clothing.

(Jessica indicated that she tried to push Adam away) Jessica told Adam that she did not think this was a good idea and told him she did not want to have sex. Jessica reported that Adam told her that it could be a secret between the two of them. Jessica then reported that Adam then vaginally penetrated Jessica..

Jessica reported that she initially tried to fight back but she froze when Adam inserted his penis into her vagina. Jessica does not recall telling Adam to get off of her. Jessica explained that she wanted to tell Adam to stop and try to get him off of her but she was unable to get the words to come out. Jessica reported that she did not try to fight off Adam. **(Jessica reported that she started kicking Adam and trying to get him off of her. Jessica reports that she told Adam to get off of her and leave multiple times but Adam continued. Jessica reported that she was unable to fight off Adam because he was much stronger than she was. Jessica called out for help but no one heard her).**

A few minutes later, Adam ejaculated and pulled his penis out of Jessica's vagina. Jessica reported that Adam covered her with a blanket and asked her if she wanted to go again.

Jessica explained that was still unable to speak or move and did not answer Adam. **(Jessica again told Adam that it was not a good idea. Adam indicated that he would use a condom this time. Jessica told Adam that she was sore and asked him to leave).**

Jessica indicated that Adam got out of her bed and left her dorm room at approximately 11:30pm on Sept. 14, 2016.

Brittany (W1) indicated that she was coming back to her dorm room around 11:30pm on Sept. 14, 2016 and saw Adam leaving their room. Brittany was also friends with Adam after meeting at freshman orientation earlier that week. Brittany had seen Jessica and Adam together at the football game earlier

Brittany reported that when she walked into the room she found Jessica laying still, naked, and silently in her bed. Brittany asked Jessica what was going on. Jessica did not respond. Brittany went over to Jessica and asked if she was ok. When Brittany noticed that Jessica was not responding, she started shaking Jessica to try and get her to respond. Brittany reported that Jessica's body was completely limp, but her eyes were open and she seemed aware of the situation. After a couple minutes of this behavior, Jessica finally sat up and started crying. **(Brittany reported that when she walked into the room she found Jessica sitting on the side of her bed, half dressed, crying).**

Brittany asked Jessica what was wrong and what had happened. Jessica told Brittany that she did not want to talk about it. Brittany asked Jessica if Adam had hurt her. Jessica nodded her head as an indication of yes. Jessica admitted to Brittany that she thought she had been raped by Adam. Jessica told Brittany about the incident with Adam. Brittany told Jessica that she should think about reporting the incident to authorities.

Jessica was unsure about reporting the incident and initially decided not to. Brittany continued to try and convince Jessica to report it. Jessica finally decided to report the incident a month later on 10-10-16 and Brittany went with her. **(Brittany went with Jessica to report the incident the next morning).**

Interview Summaries

UPD initial report observations with Jessica (CS) on October 10, 2016 (September 15, 2016)

-UPD officer reports that Jessica had a difficult time recalling the events of the night of 9-10-16. Her memories were vague and she could only remember pieces of the event. CS's timeline of events was out of order and hard to understand and interpret. **(-UPD officer reports that Jessica was easily able to recall the events of the night of 9-14-16. Jessica had a vivid memory of what had happened. Jessica's timeline of events was clear, in a logical order, and easy to understand.)**

-UPD officer reports that Jessica had did not actively fight back during the assault. **(-UPD officer reports that Jessica actively fought back during the assault.)**

-UPD officer reports that the assault had taken place a month prior to Jessica actually reporting the incident to police. **(-UPD officer reports that the assault took place the night before and Jessica went to police the next morning.)**

Manipulation/Attention Check

Who was the victim in the scenario that you read?

- a. Brittany
- b. Jessica
- c. Adam

Who was the perpetrator in the scenario that you read?

- a. Brittany
- b. Jessica
- c. Adam

How long did it take for the victim to report the sexual assault?

- a. 1 Day
- b. 1 Week
- c. 1 Month

Appendix D

Control Video Transcript (12 minutes 50 seconds)

Why We Should Love Statistics TED Talk by Alan Smith

Back in 2003, the UK government carried out a survey. And it was a survey that measured levels of numeracy in the population. And they were shocked to find out that for every 100 working age adults in the country, 47 of them lacked Level 1 numeracy skills. Now, Level 1 numeracy skills -- that's low-end GCSE score. It's the ability to deal with fractions, percentages and decimals. So this figure prompted a lot of hand-wringing in Whitehall. Policies were changed, investments were made, and then they ran the survey again in 2011. So can you guess what happened to this number? It went up to 49.

And in fact, when I reported this figure in the FT, one of our readers joked and said, "This figure is only shocking to 51 percent of the population."

But I preferred, actually, the reaction of a schoolchild when I presented at a school this information, who raised their hand and said, "How do we know that the person who made that

So clearly, there's a numeracy issue, because these are important skills for life, and a lot of the changes that we want to introduce in this century involve us becoming more comfortable with numbers.

Now, it's not just an English problem. OECD this year released some figures looking at numeracy in young people, and leading the way, the USA -- nearly 40 percent of young people in the US have low numeracy. Now, England is there too, but there are seven OECD countries with figures above 20 percent. That is a problem, because it doesn't have to be that way. If you look at the far end of this graph, you can see the Netherlands and Korea are in single figures. So there's definitely a numeracy problem that we want to address.

Now, as useful as studies like these are, I think we risk herding people inadvertently into one of two categories; that there are two kinds of people: those people that are comfortable with numbers, that can do numbers, and the people who can't. And what I'm trying to talk about here today is to say that I believe that is a false dichotomy. It's not an immutable pairing. I think you don't have to have tremendously high levels of numeracy to be inspired by numbers, and that should be the starting point to the journey ahead.

And one of the ways in which we can begin that journey, for me, is looking at statistics. Now, I am the first to acknowledge that statistics has got somewhat of an image problem.

It's the part of mathematics that even mathematicians don't particularly like, because whereas the rest of maths is all about precision and certainty, statistics is almost the reverse of that. But actually, I was a late convert to the world of statistics myself. If you'd asked my undergraduate professors what two subjects would I be least likely to excel in after university, they'd have told you statistics and computer programming, and yet here I am, about to show you some statistical graphics that I programmed.

So what inspired that change in me? What made me think that statistics was actually an interesting thing? It's really because statistics are about us. If you look at the

etymology of the word statistics, it's the science of dealing with data about the state or the community that we live in. So statistics are about us as a group, not us as individuals. And I think as social animals, we share this fascination about how we as individuals relate to our groups, to our peers. And statistics in this way are at their most powerful when they surprise us.

And there's been some really wonderful surveys carried out recently by Ipsos MORI in the last few years. They did a survey of over 1,000 adults in the UK, and said, for every 100 people in England and Wales, how many of them are Muslim? Now the average answer from this survey, which was supposed to be representative of the total population, was 24. That's what people thought. British people think 24 out of every 100 people in the country are Muslim. Now, official figures reveal that figure to be about five. So there's this big variation between what we think, our perception, and the reality as given by statistics. And I think that's interesting. What could possibly be causing that misperception?

And I was so thrilled with this study, I started to take questions out in presentations. I was referring to it. Now, I did a presentation at St. Paul's School for Girls in Hammersmith, and I had an audience rather like this, except it was comprised entirely of sixth-form girls. And I said, "Girls, how many teenage girls do you think the British public think get pregnant every year?" And the girls were apoplectic when I said the British public think that 15 out of every 100 teenage girls get pregnant in the year. And they had every right to be angry, because in fact, I'd have to have closer to 200 dots before I could color one in, in terms of what the official figures tell us.

And rather like numeracy, this is not just an English problem. Ipsos MORI expanded the survey in recent years to go across the world. And so, they asked Saudi Arabians, for every 100 adults in your country, how many of them are overweight or obese? And the average answer from the Saudis was just over a quarter. That's what they thought. Just over a quarter of adults are overweight or obese. The official figures show, actually, it's nearer to three-quarters.

So again, a big variation.

And I love this one: they asked in Japan, they asked the Japanese, for every 100 Japanese people, how many of them live in rural areas? The average was about a 50-50 split, just over halfway. They thought 56 out of every 100 Japanese people lived in rural areas. The official figure is seven.

So extraordinary variations, and surprising to some, but not surprising to people who have read the work of Daniel Kahneman, for example, the Nobel-winning economist. He and his colleague, Amos Tversky, spent years researching this disjoint between what people perceive and the reality, the fact that people are actually pretty poor intuitive statisticians. And there are many reasons for this. Individual experiences, certainly, can influence our perceptions, but so, too, can things like the media reporting things by exception, rather than what's normal. Kahneman had a nice way of referring to that. He said, "We can be blind to the obvious" -- so we've got the numbers wrong -- "but we can be blind to our blindness about it." And that has enormous repercussions for decision making.

So at the statistics office while this was all going on, I thought this was really interesting. I said, this is clearly a global problem, but maybe geography is the issue here. These were questions that were all about, how well do you know your country? So

in this case, it's how well do you know 64 million people? Not very well, it turns out. I can't do that. So I had an idea, which was to think about this same sort of approach but to think about it in a very local sense. Is this a local? If we reframe the questions and say, how well do you know your local area, would your answers be any more accurate?

So I devised a quiz: How well do you know your area? It's a simple Web app. You put in a post code and then it will ask you questions based on census data for your local area. And I was very conscious in designing this. I wanted to make it open to the widest possible range of people, not just the 49 percent who can get the numbers. I wanted everyone to engage with it. So for the design of the quiz, I was inspired by the isotypes of Otto Neurath from the 1920s and '30s. Now, these are methods for representing numbers using repeating icons. And the numbers are there, but they sit in the background. So it's a great way of representing quantity without resorting to using terms like "percentage," "fractions" and "ratios."

So here's the quiz. The layout of the quiz is, you have your repeating icons on the left-hand side there, and a map showing you the area we're asking you questions about on the right-hand side. There are seven questions. Each question, there's a possible answer between zero and a hundred, and at the end of the quiz, you get an overall score between zero and a hundred. And so because this is TEDxExeter, I thought we would have a quick look at the quiz for the first few questions of Exeter. And so the first question is: For every 100 people, how many are aged under 16? Now, I don't know Exeter very well at all, so I had a guess at this, but it gives you an idea of how this quiz works. You drag the slider to highlight your icons, and then just click "Submit" to answer, and we animate away the difference between your answer and reality. And it turns out, I was a pretty terrible guess: five.

How about the next question? This is asking about what the average age is, so the age at which half the population are younger and half the population are older. And I thought 35 -- that sounds middle-aged to me.

Actually, in Exeter, it's incredibly young, and I had underestimated the impact of the university in this area. The questions get harder as you go through. So this one's now asking about homeownership: For every 100 households, how many are owned with a mortgage or loan? And I hedged my bets here, because I didn't want to be more than 50 out on the answer.

And actually, these get harder, these questions, because when you're in an area, when you're in a community, things like age -- there are clues to whether a population is old or young. Just by looking around the area, you can see it. Something like homeownership is much more difficult to see, so we revert to our own heuristics, our own biases about how many people we think own their own homes.

Now the truth is, when we published this quiz, the census data that it's based on was already a few years old. We've had online applications that allow you to put in a post code and get statistics back for years. So in some senses, this was all a little bit old and not necessarily new. But I was interested to see what reaction we might get by gamifying the data in the way that we have, by using animation and playing on the fact that people have their own preconceptions.

It turns out, the reaction was, um ... was more than I could have hoped for. It was a long-held ambition of mine to bring down a statistics website due to public demand.

This URL contains the words "statistics," "gov" and "UK," which are three of people's least favorite words in a URL. And the amazing thing about this was that the website came down at quarter to 10 at night, because people were actually engaging with this data of their own free will, using their own personal time. I was very interested to see that we got something like a quarter of a million people playing the quiz within the space of 48 hours of launching it. And it sparked an enormous discussion online, on social media, which was largely dominated by people having fun with their misconceptions, which is something that I couldn't have hoped for any better, in some respects. I also liked the fact that people started sending it to politicians. How well do you know the area you claim to represent?

And then just to finish, going back to the two kinds of people, I thought it would be really interesting to see how people who are good with numbers would do on this quiz. The national statistician of England and Wales, John Pullinger, you would expect he would be pretty good. He got 44 for his own area.

Jeremy Paxman -- admittedly, after a glass of wine -- 36. Even worse. It just shows you that the numbers can inspire us all. They can surprise us all.

So very often, we talk about statistics as being the science of uncertainty. My parting thought for today is: actually, statistics is the science of us. And that's why we should be fascinated by numbers.

Thank you very much.

Appendix E

Basic Video Transcript (7 minutes 19 seconds)

Today's presentation is going to present some information about Sexual assault. I want to give a brief overview of what we are going to be talking about today. First we will go over the definitions related to sexual assault and how they have changed. We are also going to talk about some of the most recent statistics on sexual assault. We will talk about the low prevalence of reporting sexual assaults. And finally, we will discuss some rape myths. Sexual assault is one of the most prevalent but under reported crimes in the United States. Sexual assault is an umbrella term that may include rape, attempted rape, any unwanted sexual touching, and/or forced sexual behavior. As of 2013, the Federal Bureau of Investigation's (FBI) uniform crime report defines rape as "penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim". Prior to 2012, this definition read, "the carnal knowledge of a female forcibly and against her will". In addition to being outdated, the older definition limited victims to those who were female, those who actively fought back, and those who were attacked by a male perpetrator. The new definition is much more inclusive of a broad range of rape scenarios by including male victims, female perpetrators, and those who may not be competent to legally give consent. These definitions may vary slightly by state.

It can be difficult to estimate the prevalence of rape and sexual assault for several reasons. The varying and changing definitions from year to year and jurisdiction to jurisdiction make it difficult to know exactly how many people are affected. According to the Uniform Crime Report, compiled by the FBI, in 2010, there were 84,767 forcible rapes reported to police in the United States. This equates to 1 in 5 women and 1 out of every 71 men being victims in their lifetime. While sexual assault crimes are occurring at high rates, it is estimated that only 63% of those assaults in the U.S. and 90% on college campuses are ever reported to law enforcement. 91% of all rape victims are female and, accordingly, only 9% of victims are male. It is estimated that 80% of rapes are committed by someone known to the victim-Those known to the victim could include a spouse, intimate partner, ex-partner, friend, family member, or acquaintance

It is well known that rape is the most under-reported crime. There are many reasons a victim may choose not to report or not to report in a timely manner. "Guilt, fear of retribution, humiliation, lack of knowledge and trust in the legal and medical system, and impaired thinking and processing that occurs after intense trauma are some reasons a person may not report" One estimate of the dark figure, those unreported to authorities, is 63% of all sexual assaults. There are many reasons a sexual assault victim may choose not to report what has happened to them. There are several reasons why a victim may choose not to report the crime to the proper authorities. One reason may be that the victim is in denial. The victim needs to be able to acknowledge for themselves that a rape occurred and that it was in fact a crime. Oftentimes the act meets the legal definition of rape, but the victim does not personally define it as a rape and therefore never discloses the event to authorities. Another reason may be that they fear retaliation from their perpetrator. This is especially true if the perpetrator is someone that is an acquaintance with the victim. This can be extremely dangerous for the victim because it could lead to further threats, abuse or even death. Another issue with reporting acquaintance rape is

that the closer the relationship is between the victim and the attacker, the less likely the victim is to report the assault. Finally, the victim may choose not to report the sexual assault because they are afraid of being blamed for the incident or because they feel guilty. The rape myth discussed earlier that states that a victim was “asking for it” based on their sobriety, clothing, or actions is one of the main culprits for the victim feeling guilty. The self-blame and guilt of what happened may make the victim feel like they deserved what happened to them and since they feel that they are the guilty party, they see no reason to report the incident.

Rape myths are defined as stereotypical, prejudicial, or false beliefs about rape, rape victims, and rapists that are generally untrue but widely held. These myths are not backed by scientific findings. They are a form of victim blaming and are harmful to the psychological wellbeing of victims and potential victims. These myths are typically perpetuated by the media and conservative political agendas

One of the most common rape myths states that many victims lie or give false reports of sexual assault. It has been found that false reports typically range anywhere from 2-8% of all reports. One author suggests that since approximately 5% of rape reports are false and approximately 90% of all rapes are never reported, of all reported and unreported rapes, only .005% are false allegations. In general, since so few victims actually report their sexual assault, it becomes even less likely that false claims will be made. Another commonly believed rape myth states that if someone was really raped, they would have actively fought back; if they didn't fight back, they must have enjoyed it. One study found that 57% of the victims that reported their assault to an emergency room did not actively fight back and only 19% reported that they had fought back throughout the assault. While many victims choose not to fight back in hopes of reducing the likelihood of further threat or injury, oftentimes, a victim's lack of resistance can be explained by tonic immobility. Tonic immobility, sometimes referred to as “rape-induced paralysis,” is an involuntary mammalian response to high-fear situations where the body experiences elevated breathing and paralysis of the muscles. Tonic immobility is a documented neurobiological response to trauma and some reports estimate between 37-42% of rape survivors experienced this paralysis during the assault. The final rape myth that we will discuss states that wearing provocative clothing, being under the influence of alcohol, or behaving in a suggestive manner means that the victim was “asking for it”. Almost all resources for sexual assault survivors make a point to emphasize that it is never the victim's fault. The victim always has a right to say no regardless of what they are wearing, how they may have been acting, or if either actor had been drinking or under the influence of drugs. Anytime that any unwanted sexual contact occurs, the perpetrator is at fault and a sexual assault occurred. Sexual abuse is always the perpetrators responsibility, no one has the right to force sexual contact on another person regardless of the circumstances. Sexual assault is a crime. There are resources to help survivors through all parts of the reporting and coping processes

In conclusion, sexual assault is a very common crime that is very under-reported. Rape myths are a form of victim blaming and need to be avoided. There are many steps that can be taken to help keep yourself and your friends safe. However, sexual assault can still happen to anyone and it is never the victims fault.

Appendix F:
Neurobiological Video Transcript (11 minutes 58 seconds)
(Adapted from Campbell's 2012 NIJ Presentation)

Today's presentation is going to be on the neurobiology of sexual assault. And specifically, we are going to focus on how sexual assault impacts the brain and memory.

I want to give a brief overview of what we are going to be talking about today. First we will discuss some hormones and how they may affect memory recall. We are also going to talk about how the body has a freeze response in addition to fight or flight. That freeze response may explain why victims don't fight back during a sexual assault. And finally, we will talk about how these factors lead to victims not wanting to report what happened to them.

Before we get into the details of the neurobiology of sexual assault, I wanted to discuss the definition of rape and sexual assault. According to the FBI's Uniform Crime Report, rape is defined as penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim. Sexual assault is the umbrella term for all unwanted sexual contact. This can include rape; forced kissing; forced penetration, whether it be anal, vaginal, or oral; and inappropriate fondling.

I want to start off by talking about a few of the hormones in the body that are especially important during trauma. Specifically, there are four main chemicals that would be released during a traumatic event. It is important to briefly introduce these chemicals in order to later understand why a victim may respond or react the way they do. The first one is the catecholamines. Adrenaline. catecholamines are helpful for the fight-or-flight response. In conjunction with that we have cortisol. Cortisol levels are going to affect the amount of energy that the body has to fight back or to try to flee the situation. Now because traumatic events often involve physical pain in addition to emotional pain, two other hormones might be released by the adrenals, one of which are the opiates — they act like natural morphine in the body. So there is going to be a release of those to try to compensate for the physical and emotional pain that's going through the victim's body. And in conjunction with that would be oxytocin. So while we have the blunting of the pain from the opiates, the oxytocin is trying to increase positive feelings. So we're going to try to even that out to make sure that the physical pain is being effectively managed by the body during a traumatic event. So there is a very brief overview of hormonally what is happening to victims at the time of a traumatic event.

Now let's do a brief introduction to the structures that are important for memory and trying to take in a traumatic event and lay it down in the brain structures. This is also important to briefly introduce in order to understand how and why a victim's memory may be impacted by sexual assault. The two I want to talk about here are the amygdala and the hippocampus

Now, the hippocampus is the structure in the brain that processes information into memories.

So it takes all of the different sensory information that's going on in your world right now and it has to organize it.

This is a process called encoding. You can think about it as little tiny pixels of information.

And then it has to consolidate that information. It has to organize it. It has to pull out the visual, the auditory, the sensory — everything that goes together in this talk about the neurobiology of trauma. It has to link all of this. You see that sort of color coding represented here. Everything that belongs together gets grouped together, and then it will be stored somewhere throughout the brain.

If the information coming into the brain, into the body, is emotionally charged and fearful, the amygdala is actually the structure that's going to pick that up first and the memories are much more difficult for the brain to process because they're laden with fear. So the amygdala and the hippocampus have to kind of work together for the encoding of that information and then the consolidating of that information.

Now here's the problem. The hippocampus and the amygdala are very sensitive to hormonal fluctuations. So depending upon what hormones are in the body at the time of encoding and consolidation, it's going to be easier or harder for the brain to do the work that it needs to do of encoding and consolidating information.

So the big question then, of course, is which hormones are the ones that are damaging to the amygdala and the hippocampus? It is the catecholamines, the cortisol, the opiates, and the oxytocin. This is a classic example of where our body can sometimes be working at cross-purposes. On the one hand, we covered how all of these hormones are very, very helpful for the emotional aspects and the physical safety of the organism.

On the other hand, these same hormones are going to make it very difficult for the brain to lay down the encoding and consolidation that needs to happen to record the traumatic event in the brain.

So, how is this going to play out for sexual assault victims? The information that's coming into the victim's brain and body during a sexual assault is traumatic. It is one of the most psychologically damaging forms of crime that anybody could experience. The amygdala is going to recognize this as a threat to life. It is going to signal to the hypothalamus, "We have a threat to life coming in." The hypothalamus is now going to signal and there is going to be a hormonal flood in the victim's body.

The catecholamines are often going to be at very, very high levels during the assault. We talked about how these hormones are very helpful for the fight-or-flight response. On the other hand, we've also hinted at a little bit that those hormones may not be the best things in terms of memory. The other thing that these hormones are not the greatest at is that they impair the circuits in our brain that control rational thought. So the parts of our prefrontal cortex that allow us to do "IF this THEN that" rational thought don't work when catecholamines are that high. So a victim under sort of normal levels of catecholamine — meaning not being victimized — might be able to look at a situation and say, "Oh, well of course the rational, logical thing for me to do is this." The victim literally can't think like that during the assault. The catecholamines have caused structural cellular damage to those circuits. It's not permanent; it's temporary. But at the same time, they can't do that "IF this THEN that" thought. So when they're in the middle of the assault, strategies like "you could have done this, you should have then that" don't

happen — they can't even think of those options, let alone execute them. So again, kind of a tragic situation where our body is working at cross-purposes. On the one hand, it can help here, and on the other hand it's not going to help the rational thought. Opiates released in very, very high levels during sexual assault, again blocking the physical pain, the emotional pain. But similar to morphine — if any of you have had major surgery — morphine's not sensitive to subtleties. It blocks the pain. So the affect that a victim might be communicating during the assault and afterward may be very flat and incredibly monotone — like seeing no emotional reaction, which again sometimes can seem counterintuitive to both the victim and other people. It's like "This was a horrible traumatic event. Why aren't you showing these kinds of emotions?" The morphine like Opiate is not letting it come through. It has been blunted.

And then finally, for some victims, it's the corticosteroids that have dumped out at very high levels and actually reduces the energy available to the body. Now, I've been talking so far about fight-or-flight. It's actually fight, flight, or freeze — for some victims, they don't fight back. They don't flee the situation. Their body freezes on them because of this hormonal flood. And it can trigger essentially an entire shutdown in the body. And the technical name for this is tonic immobility.

Tonic immobility is often referred to as "rape-induced paralysis." It is an autonomic response, meaning that it's uncontrollable. This is not something a victim decides to do. It is evolutionarily wired into us to protect the survival of the organism. Because sometimes the safest thing to do to protect the safety is to fight or run but sometimes neither of those options are a good idea. Therefore, our bodies have been wired for a freeze response too — to look dead, because that may be the safest thing for the survival of the organism. So it is a natural response that is in all of us and we can't control it. And it happens in extremely fearful situations. Behaviorally, it is marked by increased breathing, eye closure, but the most marked characteristic of tonic immobility is muscular paralysis. A victim in a state of tonic immobility cannot move. They cannot move AT ALL. Research suggests that between 12 and 50 percent of rape victims experience tonic immobility during a sexual assault, and most data suggests that the rate is actually closer to the 50 percent than the 12 percent.

Alright, so we already talked about the hormonal releases. Let's now pick up on the memory pieces of the neurobiology of trauma and try to understand what's happening for the victim in terms of the memory and cognition pieces.

We have talked about how those stress hormones released at such high levels are going to impair the hippocampus. It's going to be difficult for the brain to encode and consolidate this information. So the memories are going to be fragmented when they're stored in the victim's brain. And that means that the recall of this is going to be very slow and difficult.

Now, I think the best way to explain this is with an example. Imagine you have to take notes of everything you are learning in this presentation. What if I told you that you had to take those notes on little teeny post-it notes. And I want you to write down everything that you know and have learned in this presentation on post-it notes of different sizes. And they're all small. They're all little tiny pieces. I want you to write down what you know. And on one size you might get a couple of words. On a different

size you might get a small sketch, but it's going to be in lots of really small pieces. And let's just also pretend these are different colors pink, yellow, blue. Now, I want you to take all of the post-it notes where you've so carefully tried to write down what you've learned in this presentation. I want you to put them all in your hands, and I want you to imagine the messiest desk ever. Maybe it is your desk. Maybe it's your boss or professor's desk. I want you to take that pile of post-it notes, and I want you to scatter them all over that desk. I want you to put them up high and down low. I want you to put them in folders that have nothing to do with this talk. I want you to crinkle some of them up and shove them under things. I want you to take one and wad it up and put it in the pencil jar. And then I want you to walk away for 24 hours, and then I want you to go back in and I want you to stand before that world's messiest desk and I want you to find all of those post-it notes. And I want you to put them in the correct order, and then tell me right back what you learned in this presentation.

That's why memory can be slow and difficult — because the encoding and the consolidation went down in such a fragmented way. It went down on little tiny post-it notes and they were put in all different places in the mind. And you have to sort through all of it, and it's not well-organized, because remember I told you to put some of them in folders that had nothing to do with this and pencil jar. It's not where it's supposed to be. It takes a while to find all the pieces and put them together. So that's why victims, when they're trying to talk about this sexual assault, it comes out slow and difficult. But the question everybody wants to know about is the accuracy of that information. And what we know from the research is that the laying down of that memory and the recall of it is accurate. So what gets written on the post-it notes IS accurate. It is just the storage of it that is disorganized and fragmented.

Let's wrap up everything we have just learned. A victim's memory may be disorganized but is accurate. It is also normal for a body to respond to trauma by freezing rather than fighting or running. However, most victims don't recognize their disorganized memory and body responses as normal. Following an assault, victims are often scared, confused, and unsure of what they should do next. All of these mental and physical responses may lead a victim to not report the crime right away. In many cases, the victim may choose to never report for fear of retaliation from the perpetrator or from the fear of not being believed because they can't clearly remember what happened to them. It is important to remember that a sexual assault is never the victim's fault. A victim can accurately remember the events of the assault but it may be disorganized and take some time to become clear. Freezing is a normal response that is just as valid as running or fighting. And finally, just because a victim does not report right away does not mean it didn't happen.

In conclusion, while slow memory recall, not reporting right away, and tonic immobility seem like counterintuitive victim behaviors, the behaviors are completely normal and are the brain and body's way of protecting the individual.

**Appendix G:
Assessing Victim and Perpetrator Blame**

Assessing Victim Blame

Jessica is responsible for the sexual assault.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Jessica is to blame for the situation.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Jessica deserved to have this happen.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

To what extent do you feel anger toward Jessica?
Not at All Very Much
1 2 3 4 5 6 7

Assessing Perpetrator Blame

Adam is responsible for the sexual assault.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Adam is to blame for the situation.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Legal action should be taken against Adam for the sexual assault.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Adam was wrong to sexually assault Jessica.
Strongly Disagree Strongly Agree
1 2 3 4 5 6 7

Adam could have prevented the situation.

Strongly Disagree

Strongly

Agree

1 2 3 4 5 6 7

To what extent do you feel anger toward Adam?

Not at All

Very Much

1 2 3 4 5 6 7

Appendix H
Assessing Victim Credibility and Behavior

Assessing Victim Credibility

*reverse coded for analysis

What is the likelihood that Jessica communicated to Adam that she did not agree to sexual relations?

Very Unlikely						Very Likely
1	2	3	4	5	6	7

*To what extent do you think Jessica was a willing participant?

Very Unlikely						Very Likely
1	2	3	4	5	6	7

What is the likelihood that Adam physically forced Jessica?

Very Unlikely						Very Likely
1	2	3	4	5	6	7

*What is the likelihood that Jessica was lying about the event?

Very Unlikely						Very Likely
1	2	3	4	5	6	7

*To what degree do you think Jessica was interested in having intercourse?

Very Unlikely						Very Likely
1	2	3	4	5	6	7

Assessing Victim Behavior

To what extent do you think Jessica “lead Adam on?”

Not at All						Very Much
1	2	3	4	5	6	7

To what extent do you think Jessica was “asking for it?”

Not at All						Very Much
1	2	3	4	5	6	7

To what extent does Jessica’s memory make you think that she is lying about the assault?

Not at All						Very Much
1	2	3	4	5	6	7

Appendix I:

Illinois Rape Myth Acceptance Scale

Please rate the degree to which you agree with the following statements.

If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

When women go to parties wearing slutty clothes, they are asking for trouble.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

If a woman goes to a room alone with a guy at a party, it is her own fault if she is raped.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

If a woman acts like a slut, eventually she is going to get into trouble.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

When women get raped, it's often because the way they said "no" was unclear.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

If a woman initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

When guys rape, it is usually because of their strong desire for sex.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

Guys don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

Rape happens when a guy's sex drive goes out of control.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

If a guy is drunk, he might rape someone unintentionally.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

If both people are drunk, it can't be rape.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

If a woman doesn't physically resist sex- even if protesting verbally- it can't be considered rape.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

If a woman doesn't physically fight back, you can't really say it was rape.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

A rape probably doesn't happen if a woman doesn't have any bruises or marks.

Strongly Disagree

1 2 3 4 5 6 7

Strongly Agree

If the accused “rapist” doesn’t have a weapon, you really can’t call it a rape.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

If a woman doesn’t say “no” she can’t claim rape.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

A lot of times, women who say they were raped agreed to have sex and then regret it.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

Rape accusations are often used as a way of getting back at guys

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

A lot of times women who say they were raped often led the guy on and then had regrets.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

A lot of times, women who claim they were raped have emotional problems.

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

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

Strongly Disagree

Strongly Agree

1 2 3 4 5 6 7

Appendix J Demographics

Please respond to each of the following items to the best of your ability.

How old are you? ____ Years old

What is your gender? Male ____ Female ____ Transgender Male ____ Transgender
Female ____ Other ____

What is your ethnicity (check one)?

- | | |
|--|--|
| <input type="checkbox"/> White (Caucasian/European or European American) | <input type="checkbox"/> Caribbean Islander |
| <input type="checkbox"/> Mexican or Mexican American | <input type="checkbox"/> Asian or Pacific Islander |
| <input type="checkbox"/> Other Latina or Latin American | <input type="checkbox"/> Multi-ethnic |
| <input type="checkbox"/> Black or African American | <input type="checkbox"/> Other |
| <input type="checkbox"/> Native American/Alaskan Native | |

Highest level of education completed (check one)

- | | |
|--|--|
| <input type="checkbox"/> Less than high school | <input type="checkbox"/> Bachelor Degree |
| <input type="checkbox"/> High School Diploma/GED | <input type="checkbox"/> Master's Degree |
| <input type="checkbox"/> Associates Degree | <input type="checkbox"/> Doctoral Degree |

Political Orientation (select the number that best reflects you):

- | | | | | | | |
|---------|---|---|---|---|---|--------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Liberal | | | | | | Conservative |

Appendix J Debrief Form

We would like to thank you for participating in this study. Your participation will help us understand more about how students perceive and make decision regarding cases of sexual assault on college campuses.

We would like to emphasize the extreme seriousness of the crime of sexual assault and rape. Victims of sexual assault often suffer severe psychological and physical repercussion. Unfortunately, many individuals hold various misconceptions or stereotypes with regard to victims of sexual assault. Of utmost importance is for people to become aware and to understand that victims are not responsible for the assault, and the only person responsible is the perpetrator. Under no circumstances should a victim be blamed for their victimization.

The purpose of the study in which you have participated was to investigate the influence of two factors on individual college disciplinary committee decision making. The first factor had to do with victim prototypicality. That is, how stereotypical was the victim that you read about? There were two conditions for this variable, a prototypical victim that fought back, reported quickly, and had a good memory of the event, and a non-prototypical victim that did not fight back, reported a month later, and did not recall the assault very well. In reality, most victims fit the description of the non-prototypical victim. The scenario that you read was not a true case. The other variable that was manipulated was the type of education that was given. This was accomplished with the videos that were presented: either information on the neurobiology of sexual assault that highlighted memory and tonic immobility or just basic sexual assault information that highlighted statistics and rape myths. A control condition, where no information about sexual assault was presented and instead filler information about statistics was given, was also included in order to better distinguish the effect of the other two conditions.

We appreciate your taking the time to answer the questions and want to stress that our intent is to understand your beliefs; consequently, all of your answers are valuable. Also, please note that the scenario presented to you is completely fictional.

We understand that the scenarios may be upsetting and anxiety provoking for some people and we would like to stress that there are resources for you. If you would like to talk to someone about your feelings about this study, the UND Counseling Center provides services to UND students and for those that live on campus. You may contact them at 701-777-2127. The Counseling Department also operates a clinic that is available to the Grand Forks community, and can also provide referrals. The Counseling Department can be reached at 701-777-3745.

Due to the nature of this research, we ask that you do not discuss the subject matter or the details of this study with potential participants. Thank you again for your participation.

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