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Victim Blaming and Natural Reactions to Trauma in Cases of Sexual Assault and Natural Disaster

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VICTIM BLAMING AND NATURAL REACTIONS TO TRAUMA IN CASES OF SEXUAL ASSAULT AND NATURAL DISASTER

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ABSTRACT

Past research has indicated that victim blaming in cases of sexual assault is a problem in today's society (Bieneck & Krahe, 2011). The present study examined how natural reactions to trauma influence how much blame is assigned to the victim in situations of sexual assault and natural disaster. This study included 293 college students that attended a western Kansas university, with an average age of 19.71. Participants read a short scenario depicting either a victim of sexual assault or a victim of natural disaster, with the victim responding to the traumatic event by either freezing or fainting. They were then asked to rate how much the victim in these scenarios is to blame and complete the Illinois Rape Myth Acceptance scale. Results showed that victims of sexual assault were assigned more blame that victims of natural disaster. The victim's reaction, both in the freeze and faint conditions, was also rated as being more normal in the natural disaster scenarios compared to the sexual assault scenarios. These results support that there needs to be a greater emphasis put on education about sexual assault in general and typical immediate neurological reactions to trauma, especially in cases of sexual assault.

Key words: sexual assault, rape, neurological reactions to trauma, victim blaming

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INTRODUCTION

Sexual assault and the perceptions of sexual assault survivors are both major issues in society today. Survivors of sexual assault are blamed for what they were wearing, what they drank, and how they acted before the attack, along with other details of the situation surrounding the assault. They are also blamed for how they react during the attack. If the survivor does not immediately try to get away or call out for help during the attack, some argue that he or she was not actually sexually assaulted or that it was consensual sex. Freezing and fainting are natural immediate neurological reactions to trauma, but sexual assault survivors are still blamed for these reactions, whereas survivors of other traumas often are not. The purpose of this study was to explore how much blame is assigned to survivors of sexual assault in comparison to survivors of a natural disaster, based on their immediate reaction to each of these trauma situations.

First previous research will be examined. Rape culture and its role in western society will be discussed, along with the short-term and long-term effects of sexual assault. Victim blaming tendencies also will be reviewed, focusing on rape myth acceptance and victim precipitated crime. Last, the process of immediate trauma reactions will be outlined and explained as it relates to sexual assault and natural disasters.

Rape Culture

In the Oxford Living Dictionary (2017), rape culture is defined as “a society or environment whose prevailing social attitudes have the effect of normalizing or

trivializing sexual assault and abuse". There are a multitude of examples of rape culture present in western society. One example is former Canadian Judge Robin Camp, who was the judge on a sexual assault case in 2014. During the trial while the sexual assault survivor was on the stand, describing how she was violently sexual assaulted, Camp asked her why she couldn't "just keep [her] knees together" and also told her that "sex and pain sometimes go together" (Austen, 2017, para. 11). Another example happened at Saint Mary's University in Halifax. Male and female students were videotaped shouting a chant that encouraged sex with underage, nonconsenting girls. The chant stated, "SMU boys, we like them young, Y is for your sister, O is for oh so tight, U is for underage, N is for no consent, G is for grab that ass" (Tutton, 2013, para. 3). A final example includes Daniel Tosh's performance at the Laugh Factory in Los Angeles. As he was taking advice from the audience about what he should joke about next, an audience member said he should joke about rape. A woman in the audience then said, "rape jokes are never funny" to which he responded "wouldn't it be funny if she got raped by, like, five guys right now?" (Zinoman, 2012). Although these examples may not seem like a big deal to some people, they fit the definition of rape culture by normalizing and trivializing sexual assault.

Rape culture also is observed in our society by the conflicting expectations placed on young women. College age women report that they fear being label a "slut" if they have sex too quickly, but also fear that they will be branded a "prude" or a "bitch" if they do not have sex soon enough (Cera, Ford, & England, 2017, para. 1). These women also

described having to maintain a difficult balance of "having a lot of confidence but also not seeming easy" and being "cute and sexual but not slutty" (para. 6). Pressure from men to have sex makes the balance more difficult, and some women even reported that they have engaged in sex when they did not want to because they did not want the man to dislike them or think negatively of them. Likewise, teenage girls are also not immune to this tough balance.

A qualitative study that investigated adolescent sexting found similar results (Lippman & Campbell, 2014). Sexting refers to using a mobile phone to send or receive a nude picture of someone the sender or receiver knows. Teenage male participants labeled girls who send sexts as attention-seeking, crazy, insecure, and slutty. However, girls that did not send sexts were thought of as stuck up, "goody girls", or a "prude" (p. 380). Female participants reported that they felt pressured to send sexts because if they did not, the boys would "get mad" or stop talking to them. It seems as though women of all ages cannot win with this delicate balance. Along with rape culture, sexual assault also affects many women.

Sexual Assault

Sexual assault and rape are sometimes considered two different acts. For the purpose of this paper, sexual assault will be defined as any kind of sexual contact or behavior that takes place without the explicit consent of the recipient, including, but not limited to, forced intercourse (Department of Justice, 2018).

Sexual assault is a prevalent issue in the United States that needs to be addressed now. According to the National Intimate Partner and Sexual Violence Survey, one in five women and one in seventy-one men are or will be the victim of sexual assault during their lifetime (Black et al., 2011). Sexual assault on college campuses also is a particularly large concern. The U.S. Department of Justice's 2007 study, entitled The Campus Sexual Assault (CSA) Study, found that 20 percent of women and 6 percent of men were the victim of an attempted or completed sexual assault sometime during their four undergraduate years in college (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). This is a large percentage of women and men who are affected by sexual violence.

Enduring sexual violence can affect people in many ways, including increasing the likelihood of developing rape trauma syndrome. Rape trauma syndrome refers to a variety of common short-term and long-term symptoms that victims may experience after being sexually assaulted (Burgess, 1983; Wrightsman, 2001). Some of the short-term symptoms involve shock, disbelief, anger, along with many others. There are two typical emotional styles that women experience in the immediate hours after a sexual assault (Burgess & Holmstrom, 1974). They are the expressed style and the controlled style. Women who experience the expressed style exhibit behaviors such as crying, restlessness, tenseness, and anger. On the other hand, women who experience the controlled style seem calm and composed, as though they are hiding or masking their emotions.

Many of the long-term symptoms of rape trauma syndrome are similar to Post-Traumatic Stress Disorder (PTSD) in the *Diagnostic and Statistical Manual of mental Disorders-5th Edition* (DSM-5). However, like PTSD, it is important to specify that not all survivors of sexual assault develop all of these symptoms, and many symptoms develop with varying severities for each victim.

Some of the more common long-term symptoms reported by survivors are changes in their everyday routine, increased anxiety or worriedness, shock or denial of the event, and feelings of helplessness or hopelessness (Wrightsman, 2001). Survivors often report that they feel hyper-alert and paranoid after the attack, where they may feel as though they are being followed or have an exaggerated startle response to non-threatening things, such as screaming when they hear footsteps behind them (Burgess, 1983). Other symptoms that many victims face are changes in their sleeping and eating patterns, such as insomnia or lack of appetite. Along with changing in their sleep schedule, nightmares and flashbacks about the attack are also very common. This intrusive imagery can consistently cause victims to re-experience the assault, and possibly re-traumatize them in the process. Victims may withdraw from activities they would normally participate in and isolate themselves from their friends and families.

Feelings of guilt or blame, towards themselves or others, also are often reported by sexual assault victims. Victims often irrationally blame themselves after a sexual assault for their behavior during the assault and sometimes blame themselves for not engaging in behavior that they believe would have prevented the attack (“I should have

locked the window"; Wrightsman, 2001). Victims also sometimes place their blame on men in general. Taylor (1986) found that 11 percent of victims directed their blame towards all men (as cited in Wrightsman, 2001, p. 264). Guilt about not reporting also affects many victims.

According to the U.S. Department of Justice, only 23 percent of victims report the sexual assault to the police (Morgan & Kena, 2018). Common reasons given for why these victims did not want to report were because they feared reprisal and did not believe the police could do anything to help (Planty & Langton, 2013). Along with this, it is a common misconception that most sexual assaults are committed by strangers in a public space. Research has even shown that more blame is placed on victims whose perpetrator was an acquaintance, rather than a stranger (Abrams, Viki, Masser, & Bohner, 2003). However, statistically this misconception about strangers being the most common perpetrator is not true. The U.S. Department of Justice states that 38 percent of sexual assaults were committed by a friend or acquaintance, 34 percent were committed by an intimate partner, 6 percent were committed by family members, and only 22 percent were committed by strangers. Similarly, 55 percent of sexual assaults happened at or near the victim's own home, 12 percent happened at the home of a friend or acquaintance, and less than 34 percent of sexual assaults happened in a public space, such as a school, parking garage, or public transportation. Clearly, the public's perception of sexual assault is largely inaccurate. These inaccuracies are one of the many things that lead to victim blaming attitudes.

Victim Blaming

Perceptions of sexual assault survivors can have effects in many aspects of today's society. Victim blaming is defined as "a devaluing act where the victim of a crime, an accident, or any type of abusive maltreatment is held as wholly or partially responsible for the wrongful conduct committed against them" (USLegal, 2016). Victim blaming can happen in all crimes, including sexual assault. This is evidenced by an incident that occurred at Patrick Henry College when a student, who was sexually assaulted, spoke with the Dean of Student Affairs (Feldman, 2014). The student reported that after she told the Dean that she was assaulted, the Dean responded by saying: "You are in part responsible for what happened, because you put yourself in a compromising situation. . . . Actions have consequences" (para. 72). There is no doubt that the Dean in this situation placed blame on the victim; the question now is understanding why anyone would blame the victim of a crime rather than the perpetrator.

There are many different theories about why victim blaming occurs. One theory of how blaming occurs was developed by Malle, Guglielmo, and Monroe (2014) and called the Path Model of Blame. This theory explains how the cognitive process of victim blaming can take place. The model first asserts that blame develops when the perceiver (the person who assigns blame) identifies an event that violates a social norm and identifies an agent (a person or group) who caused that event. If the agent is found to not have directly caused that event, no blame is assigned to them. If the agent is determined to have caused the event, the perceiver considers whether the agent intentionally caused it

or not. The perceiver considers the reasons why, if the agent is found to have intentionally caused the event. Blame is assigned based on how justified those reasons are to the perceiver. However, if the perceiver does not believe the agent intentionally caused the event, the perceiver then deliberates about whether the agent should or could have prevented the event. More blame is assigned to the agent if the perceiver agrees that the agent had the capacity to prevent the event.

Applying this theory to cases of sexual assault would mean that the event that violates social norms is the sexual assault. From here, this theory can be applied to sexual assault in two ways. The first would be to look at the perpetrator as the agent. The perceiver then goes through the series of questions to determine how much blame is assigned to the perpetrator. If the perpetrator is determined to have intentionally caused the event, the perceiver considers the reasons why and blames the perpetrator accordingly (Niemi & Young, 2014).

The second way to apply this theory to sexual assault is by seeing the victim as the agent (Niemi & Young, 2014). If the victim is seen as the agent, the perceiver must first determine if the victim caused the sexual assault. If the victim is not determined to have caused the sexual assault, then no blame is assigned to the victim. Victim blaming becomes a reality when the perceiver determines that the victim did cause the sexual assault. This was shown at Patrick Henry College when the Dean of Student Affairs perceived the victim to have caused the sexual assault "because [she] put [herself] in a compromising situation" (Feldman, 2014, para. 72). If the victim is then determined to

have not intentionally caused the assault, then the perceiver moves on to questioning if the victim should or could have stopped the sexual assault. If the perceiver answers yes to both of these questions, then blame is assigned to the victim. Another real-life example of this would be Judge Robin Camp asking the sexual assault survivor on the stand why she couldn't "just keep [her] knees together". This Judge placed blame on the victim by assuming that she could have stopped the sexual assault anytime she wanted to by closing her knees (Austen, 2017, para. 11).

There are many different aspects to consider when discussing victim blaming attitudes. Age of the perceiver plays a part in how much blame they believe should be placed on victims. Older adults (60 to 85 years old) were found to blame the victims of non-sexual assault scenarios significantly more than middle age and young participants (Adams-Price, Dalton III, & Sumrall, 2004). The perceived power of the person placing blame also affects how much they blame the victim (Gravelin, Biernat, & Baldwin, 2019, p. 102). Men and women were primed to feel powerful (by writing about a time where they had power over someone) or powerless (by writing about a time where someone had power over them) before being asked to describe the characteristics of a sexual assault victim. Their descriptions were categorized as victim-blaming (e.g., "flirty," "parties a lot") or perspective-taking (e.g., "too scared to say no", "traumatized"). When men are primed to feel powerful rather than powerless, they were more likely to place blame on a sexual assault victim. In contrast, women in the powerless condition were more likely to place blame on the victim compared to women in the powerful condition.

Another aspect of victim blaming attitudes is the belief in what is known as a *Just World.* Lerner (1980) defines a Just World as "one in which people get what they deserve" (p. 11). In other words, those who believe in a Just World, believe that the world is fair. They believe that whatever happens to a person is caused directly by how that person acted. Research has shown that those who rate higher in Just World beliefs are more likely to assign blame to a sexual assault victim compared to those who rate lower in Just World beliefs (Strömwall, Alfredsson, & Landström, 2013). Rape myth acceptance and victim precipitated crime are two additional factors that influence how much individuals blame victims.

Rape Myth Acceptance

Rape myths are false statements about rape that many people believe are true. Some examples include: if a girl doesn't physically fight back, you cannot really say it was rape; if the accused "rapist" doesn't have a weapon, you really can't call it rape; and when girls go to parties wearing slutty clothes, they are asking for trouble (McMahon & Farmer, 2011; Payne, Lonsway, & Fitzgerald, 1999). Rape myths can be used to place blame on the victim and take blame away from the perpetrator.

Another commonly believed rape myth is that rape accusations are often used as a way of getting back at men (McMahon & Farmer, 2011; Payne, Lonsway, & Fitzgerald, 1999). There have been many research studies done trying figure out what percentage of rape allegations are false, which all come to different conclusions. However, research that has been done that is methodologically rigorous concludes that only around 2 to 8 percent

of rape accusations are false reports (Lonsway, Archambault, & Lisak, 2009). One particular study, titled the Making a Difference (MAD) Project, assessed 2,059 cases from law enforcement agencies in 8 U.S. communities over an 18-24 month period. Only 7 percent (140) of these cases were found to be false. This, along with many other studies, shows that the belief that most rape allegations are fake and used as a way to get back at guys is simply not true. This illustrates how accepting rape myths as truths can be problematic because it discounts sexual assault survivors.

Previous research has examined the relationship between rape myth acceptance and sexual assault perpetration. One study compared rape perpetrators and sexual assault perpetrators on their level of rape myth acceptance (Mouilso & Calhoun, 2013). Rape perpetrators were defined as men who had attempted or completed genital or object penetration (vaginal or anal) or oral-genital contact by force, threat of force, or if the victim was not able to give consent due to intoxication. Sexual assault perpetrators, on the other hand, were defined as men who partook in any verbal coercion or unwanted sexual contact, including fondling. All participants in this study were college age men. Although sexual assault perpetrators were not found to be particularly high in rape myth acceptance, they did find that rape perpetrators scored high on the Illinois Rape Myth Acceptance Scale (IRMA). This means that rape perpetrators were more accepting of rape myths and were more likely to believe that the myths were true, while sexual assault perpetrators were not (Mouilso & Calhoun, 2013). Although this study found that sexual assault perpetrators did not score particularly high in rape myth acceptance, another study

found that men who had employed coercive behaviors during sexual interactions were more accepting of rape myths than men who had never used coercive behavior (Bohner, Jarvis, Eyssel, & Siebler, 2005). These studies indicate that rape perpetrators and men who engage in coercive behaviors are more likely to believe false statements about rape and place blame on rape victims for being raped. This could be for a number of reasons. One may be that placing blame on the victim is a way to justify the perpetrator's actions and behaviors.

Along with male perpetrators, men in general are more likely to believe and endorse rape myths than women. A study in 2017 examined how numerous variables, including spirituality and gender, influenced rape myth acceptance (Reling, Barton, Becker, & Valasik, 2017). It found that women were less likely to endorse rape myths than men. This has also been shown in other studies (McMahon & Farmer, 2011). This may indicate that men are more likely to assign blame to sexual assault survivors.

Although men are shown to be more likely to believe rape myths, some women endorse rape myths as well. A study was conducted that investigated how age and dress style affect perceptions of child sexual assault survivors (Rogers, Lowe, & Reddington, 2016). This study examined perceptions of the rape myth that women are raped because they wear provocative, or *slutty*, clothing. Participants, who were men and women, were given scenarios depicting either a 12- or 15-year-old girl that was dressed in either a provocative way (short skirt, revealing top, fashionable hair, and makeup) or a non-provocative way (conservative clothing, unfashionable hair, and no makeup). They found

that more blame was placed on the 15-year-old than the 12-year-old for being sexual assaulted. This suggests that girls closer to the age of legal consent are regarded more like adults and perceived as having more responsibility over their actions (Rogers et al., 2016). They also found that more blame was placed on both age groups if they were dressed provocatively rather than non-provocatively. This illustrates that fact that even young girls, along with women, are blamed for what they wear if they are sexually assaulted.

Similar results were found when New South Wales police officers, who received their detective training in 2001 to 2003, were tested on their perceptions of women who reported being sexually assaulted. The police officers were given a scenario where the complainant claimed that a sexual assault happened, and the alleged offender refuted the claim. With the scenario, the police officers were given an image of the complainant wearing either provocative clothing, conservative clothing, or no image. The complainant also was reported to have either consumed beers or soft drinks. Last, the police officers were given the Illinois Rape Myth Acceptance Scale (Payne, Lonsway, & Fitzgerald, 1999). This study found a number of interesting results. The officers who scored higher on rape myth acceptance perceived the complainant as less credible and were less likely to recommend that the alleged offender be charged with sexual assault. If the officers perceived the complainant to be more provocative, the officers were more likely to believe that she did not communicate non-consent to the intercourse and were more likely to attribute responsibility for the assault to her. This was especially true if the officers

scored high in rape myth acceptance. Also, officers who were not shown a picture of the complainant were more likely to perceive the offender as credible if the complainant had consumed alcohol instead of soft drinks (Goodman-Delahunty & Graham, 2011). These results suggest that the officers were influenced by their acceptance of rape myths. Particularly, the officers were influenced by the rape myths that women who dressed provocatively or consume alcohol want or deserve to be raped. This research is important because it illustrates how the police officers' perception of victims can influence how they treat these victims. This result also shows that the officer's perceptions of the victims can affect if they believe that the offender should be charged with sexual assault or not. Their language within the police reports can be affected by their perceptions as well.

Another study examined written police records of sexual assaults. Three different types of statements were found in these police records that either endorsed some sort of rape myth or placed blame on the woman who reported the sexual assault. One or more of these statements were found in over half of the police records assessed. The three types of statements were circumstantial statements, characterological statements, and investigatory blame statements (Shaw, Campbell, Cain, & Feeney, 2017).

Circumstantial statements included those that suggested that the sexual assault did not actually happen because of the circumstances of the sexual assault or how the victim acted around the police officers. Examples of circumstantial statements are statements that expressed that the victim was lying about being raped, was not injured, actually

consented, did not express enough distress, or did not act like a victim afterwards. Out of the 248 cases assessed, around 25 percent of these cases included at least one circumstantial statement. Statements that inferred that the victim was lying about being sexually assaulted were the most common circumstantial statements, which were found in over 12 percent of the cases (Shaw et al., 2016). Characterological statements were statements that suggested that the sexual assault did not occur because of certain characteristics of the victim. These characteristics included that the victim was a drug user, was a sex worker, has "done this before", was "mental", was promiscuous, or was not credible. Almost 17 percent of cases assessed included at least one characterological statement about the victim who reported the sexual assault (Shaw et al., 2016).

The last type of statement found in these reports was investigatory blame statements. These statements referred to when the police placed blame on the victim for the case not advancing as far as it could have if the victim would have participated more in the process. Investigatory blame statements included statements that insinuated that the victim was not cooperating with police officers, did not offer enough information about the sexual assault or the perpetrator, was not able to be contacted, or was a "weak" victim who would not hold up well during trial. Out of all the cases assessed, about 41 percent of the reports included at least one investigatory blame statements (Shaw et al., 2016).

The police officers who made these statements knowingly or unknowingly endorse rape myths. These statements, especially the circumstantial and characterological statements, serve to minimize that the sexual assault actually happened because of the

situation surrounding it or because of the characteristics of the victims. They perpetuate the idea that can rape only happen in certain situations and to certain people, which is not the case.

Victim Precipitated Crime

Victim precipitated crime is the idea that the victim of a crime in some way contributed in their own injury (Meadows, 2004). This concept was first proposed by Wolfgang in 1957 when he explained it in relation to homicide. Victim precipitated homicide circumstances were considered the situations in which the victim was the first to use a deadly weapon or the first to throw a punch. Twenty-six percent of homicides in Philadelphia involved situations in which the victim was a direct precipitator of the crime (Wolfgang, 1957). The victim precipitation theory has evolved since then to include other violent crimes, such as assault, forcible rape, and robbery (Meier & Miethe, 1993). Victim precipitation can either be active or passive. Active victim precipitation refers to the victim's behavior that may have increased their chance of victimization. In contrast, passive victim precipitation is where the victim unknowingly provokes the crime or has qualities that make them more susceptible to the crime (Meadows, 2004). An example of victim precipitation in cases of sexual assault would be a woman withdrawing consent after initiating sexual relations. Although some behaviors or qualities of the victim might make them more likely to be victimized, it is essential to realize that this does not mean the victim is to blame for the crime happening to them.

In 2012, Karmen published the victim precipitated crime rates of four violent crimes. Homicide was at 22 percent, aggravated assault was at 14 percent, armed robbery was at 11 percent, and rape was at 4 percent. This means that in 22 percent of homicides, the victim played some direct or indirect role in his or her death, and in 4 percent of rapes, the victim played some direct or indirect role in his or her sexual assault (Karmen, 2012). Even though the rate of victim precipitation in rapes is significantly smaller than victim precipitation rates in homicide, aggravated assault, and armed robbery, survivors of sexual assault are blamed a great deal more than victims of these other crimes.

In a study conducted by Bieneck and Krahe (2011), perceptions of blame on rape victims and robbery victims were compared. They gave participants scenarios depicting either a sexual assault or a robbery, where the victim was either attacked by force or attacked when under the influence of alcohol. They found that sexual assault victims were perceived as more to blame than robbery victims, both when the victim was attacked by force and when intoxicated. They also found that perpetrators of sexual assault were assigned less blame than perpetrators of robbery in both situations (Bieneck & Krahe, 2011). This demonstrates the double-standard of victim blaming and shows that even though victims of sexual assault are less likely to precipitate their crime in some way, they are blamed far more than victims of other crimes.

Immediate Reactions to Trauma

Victims of sexual assault are often blamed on how they reacted during the assault. A study done with thirty-five sexual assault survivors found that thirteen of the

participants reported that they felt completely frozen and paralyzed during the attack and were unable to move even though they were not physically restrained (Galliano, Noble, Puechl, & Travis, 1993). Eight more participants reported that they felt partially frozen and unable to move during the attack. Those that felt unable to move also reported experiencing motor inhibition, tremors, eye closures, increased breathing, and coldness to a greater degree than those who felt as though they could move during the attack. Even though it seems to be common for victims to feel unable to move, fight back, or run away, many people use this common reaction to insist that an assault did not actually take place. This common reaction will be explained by looking into the neurological effects of sexual assault, and trauma in general, on humans.

Lang, Bradley, and Cuthbert (1997) were the first to propose the theory of the defense cascade. They suggested two defense contexts, post-encounter and circa-strike, that represent the responses to impending and imminent threats. Post-encounter is the stage at which attention is focused on what may become a threat. The individual freezes, their heart rate slows, and they become very aware of their surroundings. Circa-strike is the stage in which the individual is directly under attack. The individual's heart rate quickens, and they react in a fight or flight manner (Lang et al., 1997). Many others have added to and revised this theory since Lang, Bradley, and Cuthbert.

An updated version of the defense cascade suggests that there are six common defense responses: Freeze, Flight, Fight, Fright, Flag, and Faint (Schauer & Elbert, 2010). Like in Lang et al (1997), in this model the individual first freezes when danger is

perceived to be near. This also can be called attentive immobility; the individual is very aware and is waiting to respond (Schauer & Elbert, 2010). The hormone Cortisol is released from the adrenal gland during this stage, which helps facilitate the next two stages (Bremner, 2006). The next two stages in this model are fight and flight. These responses follow the initial freeze. The individual's heart rate increases, and their sympathetic nervous system is activated. These stages are where victims try to fight back against their attackers or try to escape.

Fright is the next stage in the defense cascade (Schauer & Elbert, 2010). Fright, or tonic immobility, is the stage at which heart rate is accelerated, awareness is heightened, and muscles tense up making it hard to move. This is different than the first freezing stage. During that stage, the individual is taking in the surrounding information in order to respond effectively. However, during the fright stage, the individual is still taking in all the surrounding information, but they are unable to respond in any way other than not moving. Skinner (as cited in Schauer & Elbert, 2010) states that since both the sympathetic and para-sympathetic nervous systems are activated during this stage, individuals are at risk of cardiac death. This is sometimes seen in animals when they feel vulnerable to a predator. Some common behaviors that animals exhibit when they are in the state of tonic immobility are gross motor difficulties, restrained vocal abilities, motor tremors, numbness, static and unfocused stare, and closing their eyes (Gallup, Nash, Donegan, & McClure, 1971, as cited in Bovin, Jager-Hyman, Gold, Marx, & Sloan, 2008). Tonic immobility can be an effective strategy for animals to use because predators

are less likely to attack a prey that is immobile. Tonic immobility can happen in humans when fighting or running away are not possible or have failed, or as the individual's immediate response to the trauma or assault. In a study conducted by TeBockhorst, O'Halloran, and Nyline (2015) which surveyed seven survivors of sexual assault, a state similar to tonic immobility was reported in all seven survivors. The survivors reported that they felt a strong urge to leave during the sexual assault but had an inability to move their bodies voluntarily. Likewise, another study that assessed the immediate responses of Christchurch and Hitachi residents directly after an earthquake found that the most common response was to stop what they were doing and stay where they were without moving (Lindell et al., 2016). This response of tonic immobility, or elongated freezing, was found to be more common than the reactions of taking cover (fight) and immediate evacuation (flight).

The last two stages in the model proposed by Schauer and Elbert (2010) are flag and faint. These stages, opposite of fight and flight, are where the parasympathetic nervous system is activated. Flag is thought of as a form of dissociation, also called flaccid immobility. The flag response sometimes leads up to fainting, or a loss of consciousness. Fainting is sometimes referred to as collapsed immobility (Kozlowska, Walker, McLean, & Carrive, 2015). In these two stages, heart rate and awareness both decelerate. These reactions to trauma could have developed as a protection against cardiac failure during inescapable assaults (Schauer & Elbert, 2010). The flaccid immobility, or flag, response was also seen in the study conducted by TeBockhorst et al.

(2015). Out of the seven survivors, all but one reported that they felt numb during the attack and were not aware of physical sensations or pain.

Clearly, tonic immobility, flaccid immobility, and collapsed immobility are natural reactions to any trauma, especially sexual assault. Yet, victims of sexual assault are still blamed if they react this way during the assault. For the purposes of this study, tonic immobility, or fright, is referred to as freezing and collapsed immobility, or faint, is referred to as fainting. Flaccid immobility, or dissociating, was not assessed during this study.

The Current Study

This study was designed to test participants' perceptions of victims of sexual assault compared to victims of natural disaster based on their reactions to these traumas. There have been only a limited number of studies conducted that compare victim blaming in cases of sexual assault and natural disasters. Similarly, only limited studies have been conducted that test victim blaming because of natural reactions to trauma in cases of sexual assault. This study is a meaningful contribution to the body of knowledge on this topic because it shed light on how survivors are judged based on their innate reactions to the brutal act of sexual assault.

This study assessed how natural reactions to trauma influence how much blame is assigned to the victim in situations of sexual assault and natural disaster. The dependent variables were blame towards the victim, blame towards the perpetrator, normal reaction, and sexual assault occurrence. The independent variables were gender (male vs. female),

perpetrator (acquaintance vs. stranger), scenario (sexual assault vs. natural disaster), and reaction (freeze vs. faint). Rape myth acceptance was also examined for its relation with victim blaming and criminal liability. There were eight hypotheses.

1. First, more blame will be assigned to victims of sexual assault than victims of natural disaster (H_1). The reasoning for this was because in previous studies it has been shown that victims of sexual assault were blamed more than victims of other trauma, like robbery (e.g. Bieneck & Krahe, 2011).
2. Next, victims in both scenarios that freeze will be assigned more blame than victims who faint (H_2). This was hypothesized because victims who faint might be perceived to have less control over their actions than victims who freeze.
3. Third, the researchers believed that men, compared to women, would place more blame on the victim of sexual assault ($H_{3.1}$) and women, compared to men, would place more blame on the perpetrator in the scenarios ($H_{3.2}$). This was believed because previous research has shown that men usually rate higher on rape myth acceptance compared to women (e.g. McMahon & Farmer, 2011; Reling, Barton, Becker, & Valasik, 2017).
4. Next, victims in the acquaintance-rape scenarios would be blamed more than the victims in the stranger-rape scenarios ($H_{4.1}$). Also, perpetrators in the stranger-rape scenarios would be blamed more than perpetrators in the acquaintance-rape scenarios ($H_{4.2}$). This was believed because previous research has shown that

more blame is placed on victims whose perpetrator was an acquaintance, rather than a stranger (e.g. Abrams, Viki, Masser, & Bohner, 2003).

5. Fifth, those with higher levels of rape myth acceptance would be more likely to blame victims of sexual assault (H_5). The rationale for this was that victim blaming tendencies have been shown to increase because of the acceptance of rape myths (e.g. Rogers, Lowe, & Reddington, 2016).
6. Next, related to the previous hypothesis, those with lower levels of rape myth acceptance would be more likely to hold the perpetrator criminally liable (H_6). This was believed because those with lower levels of rape myth acceptance will have lower victim blaming tendencies, and therefore be more likely to hold the perpetrator responsible (e.g. Rogers, Lowe, & Reddington, 2016).
7. It was also hypothesized that participants would be more likely to believe that the victim's reaction is normal in the natural disaster scenarios compared to the sexual assault scenarios (H_7). The reasoning for this was, again, because victims of sexual assault are blamed for their reactions more than victims of other traumas (e.g. Bieneck & Krahe, 2011).
8. Finally, participants would be more likely to believe a sexual assault occurred when the perpetrator was a stranger rather than an acquaintance ($H_{8.1}$). The reasoning for this was because, again, previous research has found that victims are blamed more when the perpetrator was an acquaintance (e.g. Abrams, Viki, Masser, & Bohner, 2003). Also, it was believed that participants would be more

likely to believe that a sexual assault occurred when the victim faints rather than freezes ($H_{8.2}$). The reasoning behind this is that perpetrators might be perceived to be more responsible for their actions when the victim is unconscious.

METHOD

Participants

Participants included in this study were 293 (108 male, 185 female) undergraduates recruited from general education classes at Fort Hays State University (FHSU). There were approximately 46 to 51 participants for each of the six scenarios. Participants' ages ranged from 18 to 28, with a mean age of 19.71, and they described themselves as White/Caucasian (77.5%), Hispanic/Latino/a (9.9%), Biracial or Multiracial (4.8%), Black/African American (4.4%), Asian/Pacific Islander (2.4%), and American Indian/Native American (.3%), with .7% preferring not to answer. Some participants were given the option for extra credit for participating in this study at the discretion of the class instructor. However, other extra credit opportunities, besides participating in this study, were available to these participants as well. All APA required and FHSU required ethical guidelines were followed when recruiting participants.

There were originally 300 participants who completed this study, but a total of seven participants were excluded from analyses. Five of the participants were excluded because they either did not complete the survey or answered in a seemingly random way. Two additional participants were excluded because they either answered "other" or

"prefer not to answer" when asked to specify their gender, therefore the analyses used would not apply to them.

Materials

Informed Consent. Participants were asked to read and sign an informed consent before beginning study. They were informed that they would be reading and answering questions about sexual assault and natural disasters, and that they may withdraw from the study at any time and for any reason, without repercussions. They were also asked to write their emails on the informed consent so that they could be sent debriefing information via email one month after completing or withdrawing from the study. See Appendix A for full informed consent.

Scenarios. Participants were randomly given one out of six possible scenarios to read and answer questions about. The scenarios were situations in which a young woman is the victim of either a sexual assault or a natural disaster and reacted to the situation by freezing or by fainting. In the sexual assault scenarios, the perpetrator was either an acquaintance or a stranger to the victim. The natural disaster scenario depicted an earthquake. Each scenario was 130-170 words in length. The full scenarios are presented in Appendix B. After reading one scenario, participants answered a set of questions related to that scenario. Each participant answered four to eight questions (four questions for natural disaster scenarios, eight questions for sexual assault scenarios). These questions assessed the amount of blame participants assigned to each victim and perpetrator, whether participants believe the reaction of the young woman in the scenario

was normal, whether they believe a sexual assault had occurred, and how criminally liability they believed the perpetrator was (e.g. “was the women’s reaction normal?” “how much is the women to blame for how she reacted?”). Participants responded by answering either “Yes” or “No”, or on a 7-point scale ranging from 1 (not at all/none/she is totally to blame) to 7 (very much/a lot/he is totally to blame). The full set of questions is presented in Appendix C.

Illinois Rape Myth Acceptance Scale. Rape myth acceptance was measured with the updated Illinois Rape Myth Acceptance scale (McMahon & Farmer, 2011; Payne, Lonsway, & Fitzgerald, 1999). Participants rated how much they agree with rape myths (e.g., if a girl doesn’t physically fight back, you can’t really say it was rape) on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree). There are four subscales measured within the Illinois Rape Myth Acceptance scale, which are: she asked for it, he didn’t mean to, it wasn’t really rape, and she lied. Scores on all items were averaged and higher scores indicated greater acceptance of rape myths, while lower scores indicated lesser acceptance of rape myths. The updated Illinois Rape Myth Acceptance scale was chosen for this study because it has been shown to have good psychometric properties of sufficient internal consistency and reliability (McMahon & Farmer, 2011; Payne, Lonsway, & Fitzgerald, 1999). It is presented in Appendix D.

Demographics Sheet. The demographic sheet consisted of six questions and is displayed in Appendix E. The first question asked participants to indicate their gender (female, male, other, prefer not to say). The second question asked participants to write

their age. The third question asked participants to specify their ethnicity (American Indian/Native American, Asian/Pacific Islander, Black/African American, Hispanic/Latino/a, White/Caucasian, Biracial or Multiracial, other, prefer not to say). The fourth question asked participants to indicate their year in school (freshman, sophomore, junior, senior, graduate student). The fifth question asked participants to state their major in college. Last, the final two questions asked participants to indicate whether they have taken the freshman seminar class and when they took it. Participants were asked about the freshman seminar class because it covers the issues of sexual assault on college campuses and consent. Participants who have taken this class were thought to potentially respond to the questions differently than participants who have not taken this class. However, participants who had taken that class did not respond significantly different from those who did not on variables that assessed blame assigned to victims and perpetrators.

Debriefing Form. The debriefing form was given to participants at the end of participation in the study. It thanked the participants for participating, explained the purpose of the study, had the researcher's names and contact information in case they would like to reach out to the researcher after the study, and had information regarding the Kelly Center and counseling opportunities in case they were negatively affected by any of the information in the study. It also explained that they will be emailed one month after participating in this study. The debriefing email thanked participants for participating in the study and gave contact information for the Kelly Center and other

crisis information. The debriefing form and debriefing email are displayed in Appendixes F and G.

Procedure

Participants were students recruited from general education classes. The researcher and a trained counselor attend these classes on a pre-determined day. The counselor was there to provide support and resources to participants if they became distressed. Students were told at the time of recruitment that this study involves reading about situations of sexual assault and natural disaster and answering questions relating to them. Students were told that they may withdraw from this study at any time, without any repercussions.

Students who were interested in participating in this study read and signed the informed consent and were given the packet of materials. The packet of materials included one of the six scenarios to read, the corresponding questions to answer, the IRMA, and the demographics sheet in this order. The scenarios and questions were given to participants first to prevent possible order effects. Upon completion of all materials, participants were then debriefed. Again, the researchers gave all the students a debriefing sheet that thanked them for participating, had the researcher's names and contact information, and information regarding the Kelly Center and counseling opportunities.

Overall, participation in this study required approximately 15 minutes to complete. Participants were also sent an email one month after participating that thanked them for their participation and provided resource information.

RESULTS

A between subjects 2x2x2 factorial analysis of variance (ANOVA) was conducted to test hypotheses one and two. Three independent variables (A, scenario type; B, gender; C, reaction) with two levels each (sexual assault and natural disaster; male and female; freeze and faint) were tested to assess for victim blaming attitudes. The dependent variable victim blaming attitudes was created by averaging answers from questions 1, 3, and 5 for the sexual assault scenarios and questions 1, 2, and 3 for the natural disaster scenarios (see Appendix B for full set of questions). Reliability was assessed for the variable victim blaming attitudes and was found to be acceptable ($\alpha = .678$). See table 1 for full summary of results.

The first hypothesis stated that more blame would be assigned to victims of sexual assault compared to victims of natural disaster (H_1). This hypothesis was supported. As displayed in Figure 1, results indicate a significant main effect of scenario type [F (1, 285) = 35.31, $p < .001$, $\eta_p^2 = .110$]. Participants assigned more blame to the victim in the sexual assault scenario ($M = 1.66$, $SD = .77$) compared to the natural disaster scenario ($M = 1.23$, $SD = .46$).

Hypothesis two stated that victims in both scenario types who freeze would be assigned more blame than victims who faint (H_2). This hypothesis, however, was not supported. There was no main effect of reaction type [F (1, 285) = .04, $p = .847$, $\eta_p^2 < .001$]. Participants did not assign significantly more blame to victims who froze ($M = 1.53$, $SD = .73$) compared to victims who fainted ($M = 1.50$, $SD = .68$).

There was also a significant main effect of gender [F (1, 285) = 7.10, p = .008, η_p^2 = .024]. Male participants (M = 1.70, SD = .78) assigned more blame towards victims in both scenarios regardless of reaction type than female participants (M = 1.41, SD = .64).

The main effects of scenario type and gender were qualified by a significant interaction effect [F (1, 285) = 8.40, p = .004, η_p^2 = .029]. After probing the interaction further, it was found that male participants (M = 1.96, SD = .82) assigned more blame to only the sexual assault victim compared to female participants (M = 1.49, SD = .68). Male (M = 1.22, SD = .38) and female participants (M = 1.24, SD = .50) did not differ significantly in how much blame they assigned the natural disaster victim. This will be discussed further in the next two paragraphs.

Two between subjects 2x2x2 factorial analyses of variance were conducted to test hypotheses three and four. There were three independent variables (A, perpetrator type; B, gender; C, reaction) with two levels each (stranger and acquaintance; male and female; freeze and faint). The dependent variables for these analyses were victim blaming attitudes and perpetrator blaming attitudes. The dependent variable victim blaming attitudes was again created by averaging answers from questions 1, 3, and 5 for the sexual assault scenarios. The dependent variable perpetrator blaming attitudes was derived from question 2 for the sexual assault scenarios (see Appendix C). See tables 2 and 3 for full summary of results.

Hypothesis three stated that male participants would place more blame on the victim of sexual assault than female participants ($H_{3.1}$), while female participants would

place more blame on the perpetrator than male participants ($H_{3.2}$). This hypothesis was partially supported. Results indicate a significant main effect of gender in the sexual assault scenarios on victim blaming attitudes [F (1, 184) = 17.83, $p < .001$, $\eta_p^2 = .088$]. As shown in Figure 2, male participants ($M = 1.96$, $SD = .82$) placed more blame on sexual assault victims than female participants ($M = 1.49$, $SD = .68$). However, there was no main effect of gender on perpetrator blaming attitudes [F (1, 184) = .52, $p = .471$, $\eta_p^2 = .003$]. There was no significant difference between male ($M = 6.84$, $SD = .67$) and female ($M = 6.91$, $SD = .48$) participants on perpetrator blaming attitudes.

Hypothesis four stated that victims in the acquaintance perpetrator scenarios would be assigned more blame than victims in the stranger perpetrator scenarios ($H_{4.1}$), while perpetrators who were strangers to the victims would be assigned more blame than perpetrators who were acquaintances to the victim ($H_{4.2}$). This hypothesis was also partially supported. The results (displayed in Figure 3) indicate a significant main effect of perpetrator type on victim blaming attitudes [F (1, 184) = 10.86, $p = .001$, $\eta_p^2 = .056$]. Participants assigned more blame to the victim in the scenarios where the perpetrator was an acquaintance (M = 1.82, SD= .87) compared to the scenarios where the perpetrator was a stranger (M = 1.50, SD = .62). However, there was no main effect of perpetrator type on perpetrator blaming attitudes [F (1, 184) = 2.18, $p = .141$, $\eta_p^2 = .012$]. Participants did not assign significantly more blame to perpetrators who were strangers to the victim ($M = 6.95$, $SD = .27$) compared to perpetrators who were acquaintances to the victim ($M = 6.82$, $SD = .74$).

Two bivariate correlations were performed to test hypotheses five and six. The variables used in these correlations were rape myth acceptance, blame towards victim and perpetrator, and perceived criminal liability for rape of the perpetrator. The variable rape myth acceptance was calculated by averaging participants' scores from the 22 questions on the Illinois Rape Myth Acceptance Scale. Higher scores indicate greater acceptance of rape myths. The variable rape myth acceptance was found to reach acceptable reliability ($\alpha = .912$). The variable blame towards victim and perpetrator was derived from question 4 for the sexual assault scenarios, while the variable perceived criminal liability of the perpetrator for rape was derived from question 8 for the sexual assault scenarios (see Appendix C). Question 4 assessed victim and perpetrator blame on a 7-point-scale, where "1" represented the victim being totally to blame and "7" represented the perpetrator being totally to blame. Therefore, lower scores indicated more blame assigned to the victim. Question 8 also used a 7-point-scale to assess perceived criminally liability, where higher ratings signified more perceived criminal liability. See Table 4 for summary of bivariate correlations.

Hypothesis five stated that participants with higher levels of rape myth acceptance would also be more likely to assign blame to victims of sexual assault (H_5). Results indicate that the correlation between high rape myth acceptance and victim blaming attitudes is statistically significant [$r(192) = -.409$, $p < .001$]. This finding suggests that the more participants believed rape myths to be true, the more they also

placed blame of the victim rather than the perpetrator in the sexual assault scenarios, thus supporting the tested hypothesis.

Hypothesis six stated that participants with lower rape myth acceptance would also be more likely to hold the perpetrator criminally liable for rape (H_6). The results indicate that the correlation between low rape myth acceptance and perceived criminal liability is statistically significant [$r(192) = -.285$, $p < .001$]. This finding suggests that the less participants believed rape myths to be true, the more they perceived the perpetrator to be criminally liable for rape, again supporting the tested hypothesis.

Chi-square analyses were used to test hypotheses seven and eight. The independent variables used were scenario type (sexual assault and natural disaster), perpetrator type (stranger and acquaintance), and reaction (freeze and faint). The dependent variables were normal reactions and sexual assault occurrence. The variable normal reaction was derived from question 6 for the sexual assault scenarios and question 4 for the natural disaster scenarios, while the variable sexual assault occurrence was derived from question 7 for the sexual assault scenarios (see Appendix C).

Hypothesis seven stated that participants would be more likely to believe that the victim's reaction is normal in the natural disaster scenarios compared to the sexual assault scenarios (H_7). This hypothesis was supported. Chi-square analysis revealed that participants were significantly more likely to rate the victim's reaction as normal in the natural disaster scenarios compared to the sexual assault scenarios [$\chi^2 (1, N = 291) = 16.48$, $p < .001$]. Specifically, only 83.2% of participants in the sexual assault scenarios

rated the victim's reaction as normal, while 99.0% of participants in the natural disaster scenarios rated the victim's reaction as normal.

Another interesting finding was that a chi-square analysis found that participants were significantly more likely to rate the victim's response as normal if the victim froze rather than fainted [χ^2 (1, N = 291) = 4.57, p = .032]. Only 84.6% of participants in the faint scenarios rated the victim's reaction as normal, while 92.6% of participants in the freeze scenarios rated the victim's reaction as normal.

Hypothesis eight stated that participants would be more likely to believe a sexual assault occurred when the perpetrator was a stranger rather than an acquaintance ($H_{8.1}$) and when the victim faints rather than freezes ($H_{8.2}$). Chi-square analyses revealed that this hypothesis was not supported. Participants were not more likely to believe a sexual assault occurred when the perpetrator was a stranger than an acquaintance [χ^2 (1, N = 192) = 2.06, p = .151]. Specifically, 97.9% of participants in the acquaintance perpetrator scenarios and 100% of participants in the stranger perpetrator scenarios reported that they believed a sexual assault did occur. Participants were also not more likely to believe a sexual assault occurred when the victim froze rather than fainted [X^2 (1, N = 192) = 2.06, p = .151]. Specifically, 100% of participants in the freeze scenarios and 97.9% of participants in the faint scenarios reported that they believed a sexual assault did occur.

DISCUSSION

The purpose of this study was to assess how natural reactions to trauma influence how much blame is assigned to the victim in situations of sexual assault and natural

disaster. There were several interesting results. The researchers had believed that more blame would be assigned to the victims in the sexual assault scenarios compared to the victims in the natural disaster scenarios (H_1). This hypothesis was supported, meaning that participants attributed more blame to the victim of sexual assault and believed that the victim was at least partly responsible for or had control over what happened to her. This aligns with previous research. For example, a study done in 2011 found that sexual assault victims were perceived to be more to blame than robbery victims (Bieneck & Krahe, 2011). Considering this, it is not surprising that sexual assault victims are also perceived to be more at fault than natural disaster victims. This further demonstrates how there is a double-standard to victim blaming tendencies towards sexual assault victims.

The next hypothesis stated that participants would be more likely to blame victims who freeze rather than faint in both scenario types (H_2). This hypothesis was not supported, meaning that participants blamed victims who froze similarly to victims who fainted. The thought process behind this hypothesis was that it would be less justifiable to blame victims when they were unconscious because they would have less control over their actions. It is interesting that the participants did not take into account the reaction type of the victim, but still perceived the sexual assault victim to be more to blame (H_1). This continues to show that even though these neurological reactions are natural and normal, sexual assault victims who display them are attributed more blame that natural disaster victims who display them (Schauer & Elbert, 2010). Furthermore, combining both reactions, participants rated that both reactions were significantly more normal when

the natural disaster victims displayed them rather than when the sexual assault victims displayed them, supporting hypothesis seven (H_7). In addition, even though participants didn't rate the victim as being more to blame based on their reaction, participants significantly rated the freeze reaction as being more normal than the faint reaction in all scenarios. This shows that more education needs to be placed on what typical neurological reactions to trauma look like, especially reactions to sexual assault.

Hypothesis five stated that participants with higher levels of rape myth acceptance would be more likely to blame victims of sexual assault (H_5). The thought process behind this was that previous research has shown victim blaming tendencies tend to increase with high acceptance of rape myths (Rogers, Lowe, & Reddington, 2016). This hypothesis was supported, with a moderate correlation between high rape myth acceptance and victim blaming attitudes (r = -.409). This means that the more participants believed rape myths to be true, the more they also placed blame of the victim rather than the perpetrator in the sexual assault scenarios. Hypothesis six stated that participants with lower levels of rape myth acceptance would be more likely to hold the perpetrator criminally liable for rape (H_6). This hypothesis was proposed because again previous research, along with this study, have shown that lower levels of rape myth acceptance are associated with lower victim blaming tendencies (Rogers, Lowe, & Reddington, 2016). Therefore, those with lower levels of rape myth acceptance were thought to be more likely to hold the perpetrator responsible. This hypothesis was also supported, with a weak, but significant, correlation (r = -.285). Although this correlation

is weak, it shows that the lower participants were in rape myth acceptance, the more they perceived the perpetrator to be criminally liable for rape. These results may indicate that accepting rape myths to be true influences how much people blame victims and hold perpetrators liable. This could potentially affect how law enforcement and the criminal justice system handle sexual assault cases, especially if police officers, judges, and jury members believe these rape myths.

Hypothesis three stated that male participants would blame the victim of sexual assault more than female participants, while female participants would blame the perpetrator more than male participants ($H_{3.1}$). The reasoning behind this was because previous studies have shown that men are generally higher in rape myth acceptance than women, and therefore are more likely to place blame on the victim because rape myths are very victim blaming in nature (McMahon & Farmer, 2011; Reling, Barton, & Valasik, 2017). Likewise, it was thought that since women are generally lower in rape myth acceptance, they would be more likely to place blame on the perpetrator ($H_{3.2}$). This hypothesis was only partially supported and had some curious results. First, men were more likely to blame the victim of sexual assault compared to women. This was no surprise and shows that most men would benefit from more education on rape myths, and sexual assault in general. It was, however, surprising that women and men did not differ significantly in how they blamed the perpetrator. Thankfully, both men and women assigned the perpetrator a high amount of blame (6.84 and 6.91 out of 7, respectively). What makes this result interesting is the fact that even though men assigned a high

amount of blame to the perpetrator, they also assigned some blame to the victim as well. Again, this suggests that men would benefit from more education on victim-blaming tendencies.

The next hypothesis stated that the victims in the acquaintance perpetrator scenarios would be assigned more blame than the victims in that stranger perpetrator scenarios ($H_{4.1}$). In addition, this hypothesis stated that the perpetrator who was a stranger to the victim would be assigned more blame than the perpetrator who was an acquaintance to the victim ($H_{4.2}$). The reasoning behind this hypothesis was because previous research has shown that more blame is placed on victims whose perpetrator was an acquaintance, rather than a stranger (Abrams, Viki, Masser, & Bohner, 2003). Furthermore, since victims are blamed more when the perpetrator is an acquaintance, it would seem plausible that a perpetrator who is an acquaintance to the victim would be assigned less blame than a perpetrator who is a stranger. However, this hypothesis was also only partially supported. The results showed that the victims in the acquaintance perpetrator scenarios were blamed more than the victims in the stranger perpetrator scenarios. However, both perpetrator types did not differ significantly in how much they were blamed. This, like the previous hypothesis, is interesting because even though participants blamed the victim more in the acquaintance-perpetrator scenarios compared to the stranger-perpetrator scenarios, they still assigned a high amount of blame to both perpetrators regardless of their relation to the victim (6.82 for acquaintance and 6.95 for stranger out of 7). There is a common misconception that most sexual assaults are

committed by strangers, which could be why victims of acquaintance rapes are blamed more than victims of stranger rapes. However, this is not true. Approximately 78 percent of sexual assaults are committed by someone the victim knows, while only 22% of sexual assaults are committed by strangers (Morgan & Kena, 2018). Although it is good that the perpetrator is assigned a high amount of blame regardless of their relation to the victim, this result shows education on sexual assault and who perpetrates sexual assault would be advantageous for the general population.

Hypothesis eight first stated that participants would be more likely to believe a sexual assault occurred when the perpetrator was a stranger rather than an acquaintance ($H_{8.1}$). The rationale behind this was that, again, previous research has found that victims are assigned more blame when the perpetrator was an acquaintance (Abrams, Viki, Masser, & Bohner, 2003). This hypothesis also suggested that participants would be more likely to believe that a sexual assault occurred when the victim faints rather than freezes ($H_{8.2}$). The reasoning behind this was similar to hypothesis two, that perpetrators might be perceived to be more responsible for their actions when the victim is unconscious. This hypothesis overall was unsupported. Thankfully, only two participants answered that a sexual assault did not occur. These participants were unsurprising in the acquaintance perpetrator condition, but surprisingly in the faint reaction condition. It is unsurprising that these two participants read the scenario where the perpetrator was an acquaintance to the victim because previous research showing that victims of acquaintance rapes are assigned a higher amount of blame compared to victims of stranger rape, which was

discussed in the previous paragraph (Abrams, Viki, Masser, & Bohner, 2003). However, it is surprising that these participants rated that a sexual assault did not occur when the victim was unconscious. This fact could have potentially been mitigated by these two participants because the perpetrator was someone the victim knew, or they could have misinterpreted the scenario or questions. Either way, education on what generally constitutes a sexual assault would be valuable in this case.

Overall, this study yielded a number of significant results that show that victim blaming based on natural reactions to trauma, and in general, is an issue that must be dealt with. There needs to be a greater emphasize put on education about typical immediate reactions to trauma (specifically sexual assault), rape myths, and what constitutes sexual assault. This education would benefit everyone, especially jurors on sexual assault cases, employees and students on college campuses, and administrators in Title IX offices. The information gained from this study is particularly valuable now with the recently proposed changes to Title IX. These changes include allowing the person accused of sexual misconduct to cross-examine the accuser, only allowing "severe" sexual harassment issues to be investigated, limiting the number of school employees who are responsible for addressing sexual misconduct, and only investigating cases that take place on campus or at a school-sponsored event (Brown & Mangan, 2018; Tang, 2018). These changes would have a reprehensible effect on victims by making it hard to report or dismissing the case if it doesn't meet these strict requirements. This study, along with previous research, found that victims of sexual assault are blamed at a higher rate

than victims of other traumas (Bieneck & Krahe, 2011). Furthermore, this study, along with others, found significant victim blaming tendencies towards victims whose perpetrator was an acquaintance. Since most victims know their perpetrator, especially in college-related cases, this would make it substantially harder for the victim to report (Morgan & Kena, 2018). First, the victim would be more likely to have blame placed on them, and second, their perpetrator would be allowed to cross examine them, potentially traumatizing them further. These proposed changes clearly indicate that more education needs to be placed on sexual assault awareness.

One class at Fort Hays State University that addresses the issue of sexual assault on campus is the freshman seminar class that is required for all freshman students. Participants in this study were asked if they had taken the class so that those who had taken it could be compared to those who had not taken it on their victim blaming attitudes. There was no significant difference between them. However, there appeared to be low power for this analysis because very few participants reported that they had not taken this class. In the future, recruiting an adequate sample size for this analysis would be beneficial to assess whether this class influences victim blaming tendencies.

There are a few limitations of this study that must be considered when interpreting the results. First, it is worth mentioning that even though there were several significant differences in victim blaming attitudes, the effect sizes of these differences were fairly small. Participants did not rate any victim as being overwhelmingly to blame. Blame towards the victim was measured using a composite score made up of three blame

related questions (see Appendix C). These questions were measured on a 7-point-scale, where “1” indicated that the victim should not be blamed at all and “7” indicated that the victim is totally to blame. The means of this composite score across the different analyses were all under “2”. This means that although some participants did rate the victim as being more at fault than other participants, no participants rated the victim as being highly at fault.

Though it is good that participants were not highly victim blaming, another limitation of this study is that it is at risk for social desirability bias. Even though the surveys were anonymous, participants completed these surveys in their general education classes and were surrounded by their fellow students. This could have led them to answer the questions in ways they thought would be socially desirable, rather than how they honestly felt. Participants may have had higher victim blaming tendencies if they did not answer in a socially desirable way.

This study may also have restricted external validity because participants read short scenarios with scarce details about the traumatic situations. Real situations depicted in the news or heard from others may have more information regarding the trauma. This study is also limited in the fact that it was only presented to college students and not the general population. Therefore, caution should be used when attempting to generalize these findings to populations other than approximately 19 to 20-year-old college students.

Another limitation is that neurological reactions that are considered more “normal” are not compared to the freeze and faint reactions. Future directions for

research would include adding more scenarios with other typical neurological reactions, such as fight and flight, to compare to the freeze and faint reactions. The current study also did not differentiate between freezing (tonic immobility) and dissociating (flaccid immobility), so another scenario that examined a dissociative reaction would be beneficial for future research. Other research directions would be replicating the study with a wider demographic population to see if similar results are found. It would also be interesting to compare sexual assault with other forms of natural disasters, such as tornadoes, or other traumas in general, such as car accidents.

In conclusion, this study uncovered several interesting results. More blame was placed on victims of sexual assault compared to victims of natural disaster and the reactions of freeze and faint were considered more normal when the victim of natural disaster displayed them. Men placed more blame of the victim of sexual assault compared to women and all participants placed more blame on the victim that was attacked by an acquaintance compared to a stranger. These results suggest that victim blaming based on neurological reactions and rape myths is still a serious concern. With these results, along with other research, we can work towards implementing more education on neurological reactions and the realities of sexual assault. Awareness of this issue will hopefully lower the amount of blame placed on victims of sexual assault and make our society a safer, more accepting place.

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Table 1

Summary of Factorial Analysis of Variance for Victim Blame in Natural Disaster and Sexual Assault Scenarios

Variable	*F*	η_p^2
Scenario	35.31***	0.110
Reaction	00.04	0.000
Gender	07.10**	0.024
Scenario*Gender	08.40**	0.029
Scenario*Reaction	00.03	0.000
Reaction*Gender	00.49	0.002
Scenario*Reaction*Gender	00.30	0.001

*** $p \leq .001$, ** $p \leq .01$

Table 2

Summary of Factorial Analysis of Variance for Victim Blame in Sexual Assault Scenarios

Variable	*F*	η_p^2
Perpetrator	10.86**	0.056
Reaction	00.00	0.000
Gender	17.83***	0.088
Perpetrator*Gender	02.65	0.014
Perpetrator*Reaction	00.00	0.000
Reaction*Gender	01.04	0.006
Perpetrator*Reaction*Gender	00.97	0.005

*** $p \leq .001$, ** $p \leq .01$

Table 3

Summary of Factorial Analysis of Variance for Perpetrator Blame in Sexual Assault Scenarios

Variable	F	η_p^2
Perpetrator	02.18	0.012
Reaction	00.13	0.001
Gender	00.52	0.003
Perpetrator*Gender	00.00	0.000
Perpetrator*Reaction	01.95	0.011
Reaction*Gender	00.05	0.000
Perpetrator*Reaction*Gender	00.69	0.004

*** $p \leq .001$, ** $p \leq .01$

Table 4

Summary of Bivariate Correlations for Illinois Rape Myth Acceptance Scale compared to Blaming Attitudes and Criminal Liability

	Illinois Rape Myth Acceptance Scale
Blaming Attitudes	-.409***
Criminal Liability	-.285***

*** $p \leq .001$

Figure 1

Mean Scores for Victim Blame in Sexual Assault and Natural Disaster Scenarios

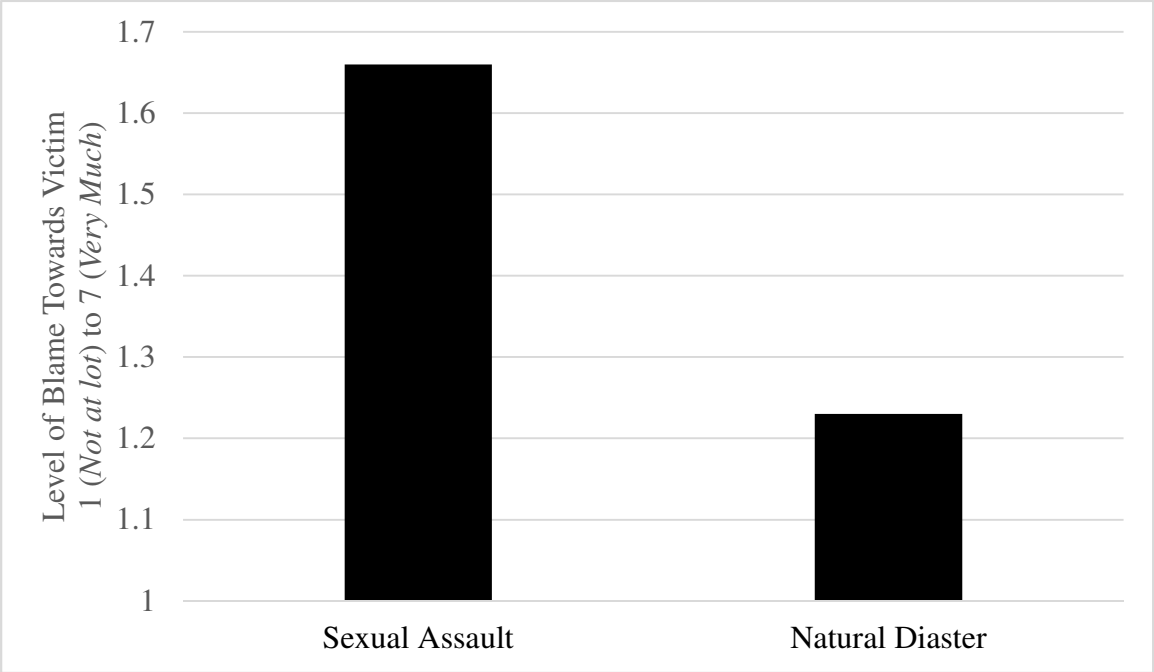


Figure 2

Mean Scores for Victim and Perpetrator Blame by Gender in Sexual Assault Scenarios

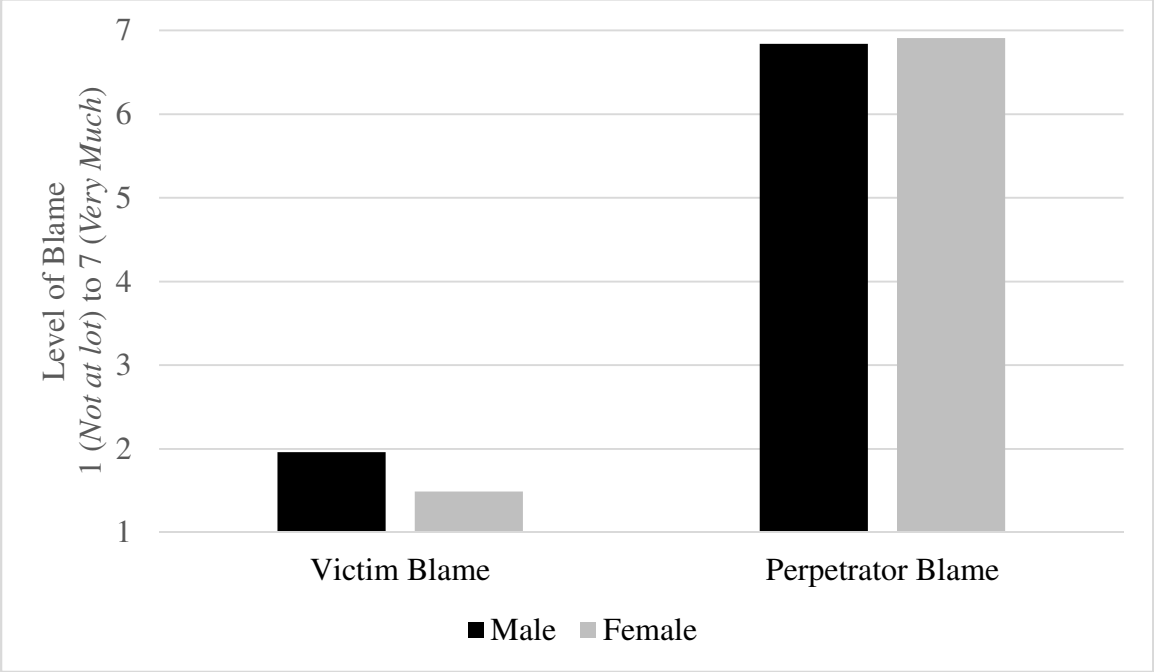
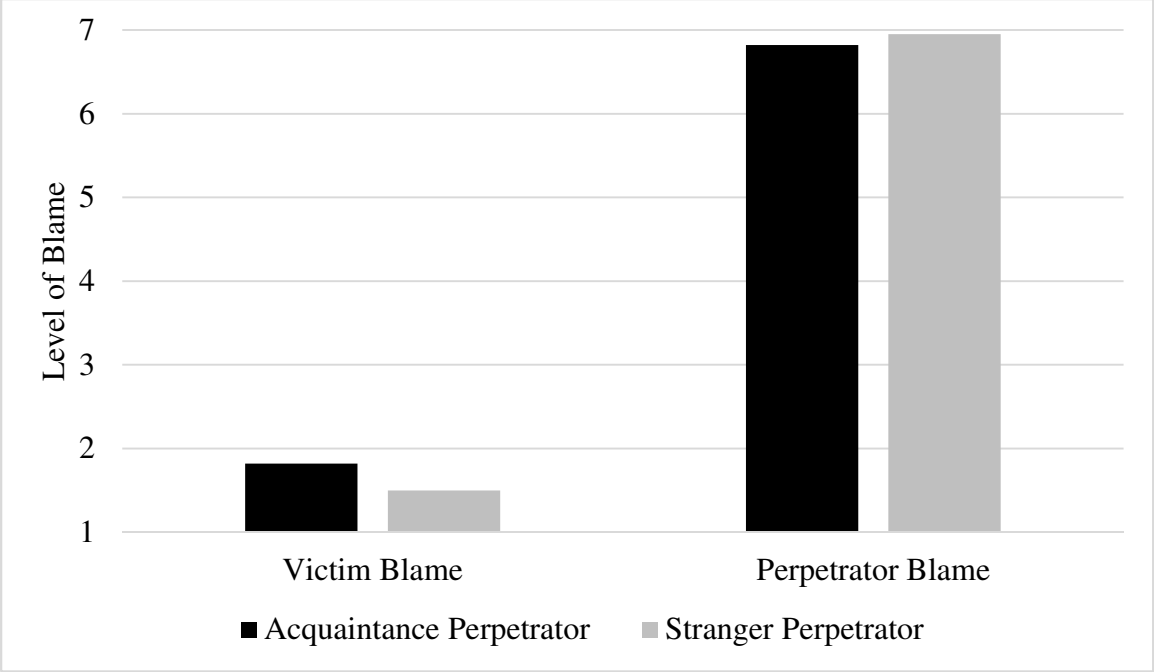


Figure 3

Mean Scores for Victim and Perpetrator Blame by Perpetrator Type in Sexual Assault Scenarios



Appendix A. Informed Consent

Adult Informed Consent Statement

Name of the Study: Victim Blaming and Natural Reactions to Trauma in Cases of Sexual Assault and Natural Disaster

INTRODUCTION

The Department of Psychology at Fort Hays State University supports the practice of protection for human subjects participating in research. You are being asked to participate in a research study. It is your choice whether or not to participate. The following information is provided for you to decide whether you wish to participate in the present study. You may refuse to sign this form and not participate in this study. You should be aware that even if you agree to participate, you are free to withdraw at any time. If you do withdraw from this study, it will not affect your relationship with this unit, the services it may provide to you, or Fort Hays State University.

PURPOSE OF THE STUDY

The purpose of this research project is to identity blaming attitudes towards victims of sexual assaults and natural disasters based on their reactions to trauma.

PROCEDURES

If you decide to participate in this research study, you will be asked to sign this consent form after you have had all your questions answered and understand what will happen to you. Your informed consent will be picked up by the researcher. You will then be asked to read a scenario about either sexual assault or natural disaster, and answer questions about that scenario. After that, you will be asked to answer some more questions regarding sexual assault. Last, you will answer questions about your own demographics. After completing all of this, you will be given a study debriefing. You will also receive an email in approximately one month from the primary researcher that states the debriefing information.
The length of time of your participation in this study is about 10-15 minutes. Approximately 300 participants will be in this study.

RISKS

It is unlikely that this project will result in harm to you as a participant. However, if you do experience abnormal stress you will be able to stop participation at any time with no penalty. **If you feel that you could become significantly upset by reading a sexual assault scenario; please do not participate in this research**. A researcher will be in the room at all times to answer your questions and to help you if you feel uncomfortable or distressed. There will also be a counselor with a background in psychology in the room at all times.

BENEFITS

You may benefit from the knowledge gained of the scientific process through participation and exposure to research. You may also learn about sexual assaults, and some of your opinions about them. Also, you may benefit by receiving course credit or extra credit for participating. In these instances, professors will offer equitable alternative options in order to give students other opportunities to receive the same amount of credit, even if they do not want to participate in this project.

PAYMENTS TO PARTICIPANTS
You will not receive any compensation for participation in this experiment. However, you may receive extra credit or research credit, but this is at your instructor's discretion.

PARTICIPANT CONFIDENTIALITY (HOW WILL PRIVACY BE PROTECTED)
Efforts will be made to protect the identities of the participants and the confidentiality of the research data used in this study. Potentially identifiable information about you will consist of your answers to the surveys, the given task, and your demographics (i.e., age, sex, ethnicity, etc.). Data is collected only for research purposes. Your data will be identified by ID number, not name, so there will be no way to link your name back to your responses in the data. All personal identifying information, such as your signature and email on this Informed Consent, as well as your surveys, will be kept in locked files and these files will be shredded approximately 5 years after publication of this data. Data files which do not contain your identifying information will be kept in an electronic file for 5 years. However, access to all data will be limited to the principal researcher.

The information collected for this study will be used only for the purposes of conducting this study. What we find from this study may be presented at meetings or published in papers but your name will never be used in these presentations or papers.

OTHER IMPORTANT ITEMS YOU SHOULD KNOW

- **Withdrawal from the study:** You may choose to stop your participation in this study at any time. Your decision to stop your participation will have no effect on your academic standing at Fort Hays State University. *You may also choose to not answer any question that you do not wish to answer.*
- **Funding:** This research study is partly funded by GSE.
- **Alternative Options:** If your instructor is providing extra credit or research credit for your participation, he/she should also provide you with alternative ways to earn this credit that do not include participating in this research study if you do not want to. Please speak directly with your instructor about alternative options.

REFUSAL TO SIGN CONSENT AND AUTHORIZATION
You are not required to sign this Consent and Authorization form and you may refuse to do so without affecting your right to any services you are receiving or may receive from Fort Hays State University or to participate in any programs or events of Fort Hays State University. However, if you refuse to sign, you cannot participate in this study.

CANCELLING THIS CONSENT AND AUTHORIZATION
You may withdraw your consent to participate in this study at any time. You also have the right to cancel your permission to use and disclose further information collected about you, in writing, at any time, by sending your written request to: Dr. Carol Patrick, Department of Psychology, 600 Park St. Hays KS 67601.

If you cancel permission to use your information, the researchers will stop collecting additional information about you. However, the research team may use and disclose information that was gathered before they received your cancellation, as described above.

QUESTIONS ABOUT PARTICIPATION

Questions about procedures should be directed to the researcher(s) listed at the end of this consent form.

PARTICIPATION CERTIFICATION:

I have read this Consent and Authorization form. I have had the opportunity to ask, and I have received answers to, any question I had regarding the study. I understand that if I have any additional questions about my rights as research participant, I may call (785) 628-4349, write the Office of Scholarship and Sponsored Projects (OSSP), Fort Hays State University, 600 Park St., Hays KS 67601, or email irb@fhsu.edu.

I agree to take part in this study as a research participant. By my signature I affirm that I am at least 18 years old and that I have received a copy of this Consent and Authorization form.

_____ _____

Type/Print Participant's Name Date

_____

Participant's Signature

_____

Type/Print Your Email

☐ Please check this box if you would like to receive a copy of the group results by email after the study is completed.

RESEARCHER CONTACT INFORMATION

Dr. Carol Patrick Faculty Supervisor Department of Psychology clpatrick@fhsu.edu 600 Park St Fort Hays State University Hays, KS 67601 (785) 628- 4406	Ashley Nielsen Principal Researcher aanielsen@mail.fhsu.edu

Appendix B. Scenarios

Scenario 1: Sexual Assault/Acquaintance/Freeze

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, they talked about a few work-related issues. Right as they arrived at her apartment, her coworker abruptly pushes her up against the building and began kissing her. At first, she tried to push him away, but he did not budge. She froze as he proceeded to have sexual intercourse with her. She stays frozen during the intercourse which lasts several minutes. When he finished, he smiles at her and tells her that he was glad he walked her home. As he walked away, she suddenly unlocks her apartment door and runs inside.

Scenario 2: Sexual Assault/Acquaintance/Faint

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, they talked about a few work-related issues. Right as they arrived at her apartment, her coworker abruptly pushes her up against the building and began kissing her. At first, she tried to push him away, but he did not budge. She faints as he proceeded to have sexual intercourse with her. She stays unconscious during the intercourse which lasts several minutes. When he finished, he shakes her, and she regains her consciousness. He smiles at her and tells her that he was glad he walked her home. As he walked away, she suddenly unlocks her apartment door and runs inside.

Scenario 3: Sexual Assault/Stranger/Freeze

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment, but she refused because she didn't want him to have to walk out of his way. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, she thought about some work-related issues. Right as she arrived at her apartment, a man jumped out from behind a building. He pushed her up against the building and began kissing her. At first, she tried to push him away, but he did not budge. She froze as he proceeded to have sexual intercourse with her. She stays frozen during the intercourse which lasts several minutes. When he finished, he smiles at her and then briskly walks away. As he walked away, she suddenly unlocks her apartment door and runs inside.

Scenario 4: Sexual Assault/Stranger/Faint

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment, but she refused because she didn't want him to have to walk out of his way. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, she thought about some work-related issues. Right as she arrived at her apartment, a man jumped out from behind a building. He pushed her up against the building and began kissing her. At first, she tried to push him away, but he did not budge. She faints as he proceeded to have sexual intercourse with her. She stays unconscious during the intercourse which lasts several minutes. She regained her consciousness and jumps up from the ground. She sees him smiling as he briskly walks away. She suddenly unlocks her apartment door and runs inside.

Scenario 5: Natural Disaster/Freeze

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment, but she refused because she didn't want him to have to walk out of his way. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, she thought about some work-related issues. Right as she arrived at her apartment, the ground begins to shake violently. She freezes as flower pots start tumbling off balconies and a stop light falls right beside her. She stays frozen as the shaking lasts for several minutes. When it stops, she suddenly unlocks her apartment door and runs inside.

Scenario 6: Natural Disaster/Faint

A young woman was walking home after having dinner with some people she worked with. She had walked to dinner because she only lived three blocks away from the restaurant. A male coworker had offered to walk her back to her apartment, but she refused because she didn't want him to have to walk out of his way. He had been making flirtatious comments to her during dinner, which she decided to ignore. On the walk, she thought about some work-related issues. Right as she arrived at her apartment, the ground begins to shake violently. She faints and falls to the ground as flower pots start tumbling off balconies and a stop light falls right beside her. She stays unconscious as the shaking lasts for several minutes. When it stops, she regains her consciousness and jumps up from the ground. She suddenly unlocks her apartment door and runs inside.

Appendix C. Questions about Scenarios

Questions Scenario 1: Sexual Assault/Acquaintance/Freeze

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Is the women's coworker responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

3. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

4. **Who is most at fault?**

She is totally to blame			They are equally to blame			He is totally to blame
1	2	3	4	5	6	7

5. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

6. **Was the woman's reaction to freeze normal?**

YES NO

7. **Was the woman sexually assaulted?**

YES NO

8. **Should the woman's coworker be held criminally liable for rape?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

Questions Scenario 2: Sexual Assault/Acquaintance/Faint

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Is the women's coworker responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

3. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

4. **Who is most at fault?**

She is totally to blame			They are equally to blame			He is totally to blame
1	2	3	4	5	6	7

5. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

6. **Was the woman's reaction to faint normal?**

YES NO

7. **Was the woman sexually assaulted?**

YES NO

8. **Should the woman's coworker be held criminally liable for rape?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

Questions Scenario 3: Sexual Assault/Stranger/Freeze

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Is the man responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

3. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

4. **Who is most at fault?**

She is totally to blame			They are equally to blame			He is totally to blame
1	2	3	4	5	6	7

5. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

6. **Was the woman's reaction to freeze normal?**

YES NO

7. **Was the woman sexually assaulted?**

YES NO

8. **Should the man be held criminally liable for rape?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

Questions Scenario 4: Sexual Assault/Stranger/Faint

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Is the man responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

3. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

4. **Who is most at fault?**

She is totally to blame			They are equally to blame			He is totally to blame
1	2	3	4	5	6	7

5. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

6. **Was the woman's reaction to faint normal?**

YES NO

7. **Was the woman sexually assaulted?**

YES NO

8. **Should the man be held criminally liable for rape?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

Questions Scenario 5: Natural Disaster/Freeze

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

3. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

4. **Was the woman's reaction to freeze normal?**

YES NO

Questions Scenario 6: Natural Disaster/Faint

Please rate these questions on the following scales:

1. **Is the woman responsible for what happened?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

2. **Did the woman have any control over the situation?**

None			Some			A Lot
1	2	3	4	5	6	7

3. **How much is the woman to blame for how she reacted?**

Not at all			Somewhat			Very Much
1	2	3	4	5	6	7

4. **Was the woman's reaction to faint normal?**

YES NO

Appendix D. Illinois Rape Myth Acceptance Scale

Please circle the number that best represents your feelings on each item.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	When guys rape, it is usually because of their strong desire for sex.	**1**	**2**	**3**	**4**	**5**
2.	A lot of times, girls who say they were raped agreed to have sex and then regret it.	**1**	**2**	**3**	**4**	**5**
3.	If a girl doesn't say "no" she can't claim rape.	**1**	**2**	**3**	**4**	**5**
4.	If both people are drunk, it can't be rape.	**1**	**2**	**3**	**4**	**5**
5.	If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.	**1**	**2**	**3**	**4**	**5**
6.	Rape accusations are often used as a way of getting back at guys.	**1**	**2**	**3**	**4**	**5**
7.	If the accused "rapist" doesn't have a weapon, you really can't call it rape.	**1**	**2**	**3**	**4**	**5**
8.	It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.	**1**	**2**	**3**	**4**	**5**
9.	When girls get raped, it's often because the way they said "no" was unclear.	**1**	**2**	**3**	**4**	**5**
10.	A lot of times, girls who say they were raped often led the guy on and then had regrets.	**1**	**2**	**3**	**4**	**5**
11.	A rape probably doesn't happen if a girl doesn't have any bruises or marks.	**1**	**2**	**3**	**4**	**5**
12.	If a guy is drunk, he might rape someone unintentionally.	**1**	**2**	**3**	**4**	**5**
13.	If a girl acts like a slut, eventually she is going to get into trouble.	**1**	**2**	**3**	**4**	**5**
14.	A lot of times, girls who claim they were raped have emotional problems.	**1**	**2**	**3**	**4**	**5**
15.	If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.	**1**	**2**	**3**	**4**	**5**
16.	If a girl doesn't physically fight back, you can't really say it was rape.	**1**	**2**	**3**	**4**	**5**
17.	Rape happens when a guy's sex drive goes out of control.	**1**	**2**	**3**	**4**	**5**
18.	If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped.	**1**	**2**	**3**	**4**	**5**
19.	Girls who are caught cheating on their boyfriends sometimes claim it was rape.	**1**	**2**	**3**	**4**	**5**
20.	If a girl doesn't physically resist sex—even if protesting verbally—it can't be considered rape.	**1**	**2**	**3**	**4**	**5**
21.	Guys don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	**1**	**2**	**3**	**4**	**5**
22.	When girls go to parties wearing slutty clothes, they are asking for trouble.	**1**	**2**	**3**	**4**	**5**

Appendix E. Demographics Questions

Please answer the following questions.

What is your gender?

- ☐ Male
- ☐ Female
- ☐ _____
- ☐ Prefer not to say

How old are you in years?

_____

What is your ethnicity?

- ☐ American Indian/Native American
- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Hispanic/Latino/a
- ☐ White/Caucasian
- ☐ Biracial or Multiracial
- ☐ _____
- ☐ Prefer not to say

What year in school are you?

- ☐ Freshman
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Graduate Student

What is your major?

_____

Did you take the freshman seminar class?

YES NO

If so, when did you take it?

_____

Appendix F. Debriefing Form

Debriefing Form: "Victim Blaming and Natural Reactions to Trauma in Cases of Sexual Assault and Natural Disaster"

You have just completed a study titled "Victim Blaming and Natural Reactions to Trauma in Cases of Sexual Assault and Natural Disaster." The purpose of this study was to identity blaming attitudes towards victims of sexual assaults and natural disasters based on their neurological reactions to trauma. The information provided will help researchers understand how individuals perceive victims based on their natural, immediate, neurological reactions to specific traumas.

Sexual assault on college campuses is a particularly large concern. The U.S. Department of Justice's 2007 study, entitled The Campus Sexual Assault (CSA) Study, found that one in five women and 6 percent of men were the victim of an attempted or completed sexual assault sometime during their four undergraduate years in college (Krebs, Lindquist, Warner, Fisher, & Martin, 2007). This is a huge percentage of women and men who are affected by sexual violence. Victim blaming is defined as "a devaluing act where the victim of a crime, an accident, or any type of abusive maltreatment is held as wholly or partially responsible for the wrongful conduct committed against them" (USLegal, 2016). Women are often blamed for how they react during a sexual assault. A study done with thirty-five sexual assault survivors found that thirteen of the participants reported that they felt completely frozen and paralyzed during the attack and were unable to move even though they were not physically restrained (Galliano, Noble, Puechl, & Travis, 1993). Eight more participants reported that they partially felt frozen and unable to move during the attack. Those that felt unable to move also reported experiencing motor inhibition, tremors, eye closures, increased breathing, and coldness to a greater degree than those who felt as though they could move during the attack. Both tonic immobility (prolonged freezing) and collapsed immobility (fainting) are natural, normal neurological reactions to a traumatic event, such as a sexual assault (Schauer & Elbert, 2010). Even though these are natural reactions to trauma, victims of sexual assault are still blamed if they react in these ways during the attack.

The proposed study is designed to test participants' perceptions of victims of sexual assault compared to victims of natural disaster based on their reactions to these traumas. This study will be a meaningful contribution to the body of knowledge on this topic because it will shed light on how survivors are judged based on their innate reactions to sexual assault. Participants were each given one of six different scenarios either about a sexual assault or natural disaster, answered questions related to that scenario, and completed other measures regarding rape myth acceptance. Based on the results of this study, we can work towards implementing more education on neurological reactions and victim blaming at FHSU. We can also work towards implementing more education on sexual assault in general and the rape myths that surround sexual assault. Awareness of this issue will hopefully lower the amount of blame placed on victims of sexual assault and make this campus and our community a safer, more accepting place.

The research team greatly appreciates your help with this project! If you feel distressed after your participation in this project, you can contact the Kelly Center (free to students) at 785-628-4401 to schedule an appointment to talk with someone about how the project impacted you or contact The National Sexual Assault Hotline at 800-656-HOPE. For more information on sexual assault statistics, you can visit https://www.rainn.org/. You may also contact the Office of Scholarship and Sponsored Projects at 785-625-4349 if you have questions about the process of this research project. For more information about the research project, you can contact the researchers or the faculty advisor, Dr. Carol Patrick, by information listed below.

Thank you!

Sincerely,

Ashley Nielsen
aanielsen@mail.fhsu.edu

Carol Patrick (Faculty Advisor)
clpatrick@fhsu.edu

Appendix G. Debriefing Email

Hello!

Hello! My name is Ashley Nielsen and I wanted to thank you again for participating in the research study titled "Victim Blaming and Natural Reactions to Trauma in Cases of Sexual Assault and Natural Disaster" during your general education class.

Here is some information on resources that can be utilized if you know someone who may need them. The Kelly Center is the on-campus counseling center that is free to students. Call 785-628-4401 to schedule an appointment with them. The National Sexual Assault Hotline is 800-656-HOPE. For more information on sexual assault statistics, you can visit https://www.rainn.org/.

For more information about the research project, you can contact the researchers or the faculty advisor, Dr. Carol Patrick, by information listed below.

Thank you!

Sincerely,

Ashley Nielsen
aanielsen@mail.fhsu.edu

Carol Patrick
clpatrick@fhsu.edu
(Faculty Advisor)

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