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Decision Making Related to Situations When Sexual Violence Might Occur

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DECISION-MAKING RELATED TO SITUATIONS WHEN SEXUAL VIOLENCE MIGHT
OCCUR

by

SHAKEIA K. SALEM

(Under the Direction of Jonathan E. Friedel)

ABSTRACT

The definition of sexual violence has changed over the years to include all unconsented sexual contact. Sexual violence is a global issue targeting young, college-aged adults. We used hypothetical scenarios to determine the discounting rates of participants in situations where sexual violence might occur. Undergraduate students ($n = 146$; mean age 20.18 years) from Georgia Southern University participated in our study. The sample of participants included 116 (79.45%) females and 30 (20.55%) males, identifying as White ($n = 85$; 58.22%), Hispanic ($n = 5$; 3.42%), Black ($n = 28$; 19.18%), Asian ($n = 1$; .68%), or biracial ($n = 27$; 18.49%). We hypothesized that participants would choose to leave situations and disengage with the potential offender as sexual violence becomes more likely. We also predicted that participants would choose to remain in these situations and continue to engage with the potential offender as sexual violence becomes less likely. The discounting curves showed participants behaved safer as the likelihood of sexual violence decreased. Correlation coefficients detected that the decisions participants made in one scenario related to how participants behaved in all other scenarios. The analyses supported our hypotheses, indicating participants behaved relatively safely as the perceived likelihood of sexual violence occurring increased. Our study raises concerns to improve scenarios and collect data from more diverse populations. Participants behaved more safely as the likelihood of sexual violence increased, indicating discounting can be used to measure decision making related to sexual violence.

INDEX WORDS: Sexual violence, Likelihood, Discounting, Delay discounting, Probability discounting, Scenarios

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A Thesis Submitted to the Graduate Faculty of Georgia Southern University
in Partial Fulfillment of the Requirements for the Degree

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COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES

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Disclaimer: The term victim and survivor will be utilized in this paper to refer to individuals who have experienced sexual violence. In terms of legality, someone who is a victim of a crime has been subjected to an offense and describes a status that provides rights to the individual according to the law. The term doesn't suggest weakness, assume guilt, or blame. The term survivor is used in context implying the individual subjected to the crime has proceeded towards healing and overcoming the violation. Although both terms are appropriate and can be used interchangeably, they serve different needs and will be applied in the appropriate context.

CHAPTER ONE

INTRODUCTION

Sexual violence is endemic in America, affecting millions of people of all ages, races, and genders (CDC, 2022). In addition, sexual violence is a common form of trauma (Dworkin et al., 2017). Sexual violence can happen at any age, but most offenses occur in early adulthood, making college students more at risk (Mumford et al., 2020). According to Cantor et al. (2019), nearly one in four female students reported sexual assault or other sexual misconduct on campus in 33 of the top universities in the United States. Other reports on sexual assault show that 17-25% of women and 1-3% of men will experience sexual assault in their lifetime (Fisher et al., 2000; Koss et al., 1987; Tjaden & Thoennes, 2006). Epidemiological research with the National Comorbidity Survey indicates that rape was the most common cause of PTSD in women (Kessler et al., 1995). Black et al. (2011), showed that nearly 1 in 5 women and 1 in 71 men have been raped in their lifetime, translating to almost 22 million women and nearly 1.6 million men in the United States. Nearly 1 in 2 women and 1 in 5 men have experienced other forms of sexual violence at some point in their lives, translating to more than 53 million women and more than 25 million men in the United States. Other forms of sexual violence include being forced to penetrate someone else, sexual coercion, unwanted sexual contact, and non-contact unwanted sexual experiences (Black et al., 2011). The goal of this research is to examine the decision making of potential victims in situations where sexual violence could occur with the goal of increasing understanding, raising awareness, and contributing to the development of effective prevention strategies and support systems.

Sexual Violence

The definition of sexual violence has evolved over the years expanding from solely acknowledging the act of rape to all unconsented sexual contact. In the 1700s, a female could not engage in sexual activity until the age of ten. During this time, constitutions of rape in the United States was defined as “carnal knowledge of a woman 10 years or older, forcibly and against her will,” as well as any child under the age of ten, whether willingly or unwillingly (Lindemann, 1984). The offense was punishable by the death penalty if found guilty and required the testimony of two witnesses, or one witness with substantial evidence that could equate to the testimony of another witness. During the late 1800s, activists successfully promoted reformations to change the legal age of consent from 10 years old to 14 and older, depending on the state (Missirian & Kulow, 2019). The changes to these laws were not universally supported. In 1895 one legislator wrote, “I regard the twelve-year-old girl as being as capable of resisting the wiles of the seducer as any older woman,” (Missirian & Kulow, 2019). Debates continued regarding the legal age of consent and the challenges of proving rape persisted. If the act wasn’t violent and did not result in physical harm, white women struggled to prove they had been raped. After the emancipation of slaves, women of color still did not have a vote in determining what happened to their bodies in terms of sexual violence (Freedman, 2012). Entirely, this led to rape allegations being successfully tried in court only if the incident included the victim being a virgin white woman, the offender was black, and the act was violent (Freedman, 2012).

Over 100 years later, activists continue to urge for legal reforms related to sexual violence (McMahon, 2011). Sexual violence is often viewed as a political and socially driven issue and problems with how the justice system respond to these issues persist (Fisher et al., 2003; Randall, 2010). Haskell and Randall (2019) demonstrated that many victims strayed away

from reporting their experience with sexual violence because of fear of humiliation from having their sexual history reviewed in court. Because the survivors of sexually violent crimes are almost always the sole, primary witness, their testimony is a crucial source of evidence. A persistent problem with rape myths is that they sometimes lead to the credibility and reliability of the survivor's testimony to be questioned. Rape myths often blame the victims, reinforce that rape claims are false, work to rid the perpetrator of allegations, and claim only certain types of women are raped (Eyssel & Bohner, 2010). These rape myths affect how testimonies are heard and understood in court proceedings (Haskell & Randall, 2019). Laws are still evolving to define sexual violence to include all persons and a wide range of behaviors. It wasn't until 1993 that rape between spouses was illegal in all 50 states. The most significant change of rape laws happened in 1975 when Congress ruled the alleged victim's sexual history could not be admissible in court.

The acceptance of sexual violence as a major social crisis in America did not occur until the 1960's and 1970's (McMahon, 2011). The anti-rape movement played a considerable part in this evolution originating from the civil rights and feminist movements of this era. Since that time, major shifts have taken place in society with encouragements for people to gain knowledge and awareness of sexual violence and offering more support for survivors. Despite these positive shifts, knowledge continues to be limited on sexual violence and its impact on survivors (McMahon, 2011).

The definition of sexual violence has expanded beyond the scope of rape and is currently best described as any unwanted sexual contact when consent is not obtained or given freely (Fernandez, 2011). As previously stated, the spectrum of sexually violent behaviors includes nonconsensual completed or attempted vaginal, oral, or anal penetration (rape), unwanted sexual

contact such as unsolicited touching, and unwanted sexual experiences that do not include physical contact with the perpetrator such as sexual harassment or exhibitionism (Smith et al., 2010). Sexually violent behaviors can begin with nonviolent interactions that may be subtle and seemingly nonthreatening. Indicators of sexual violence such as emotional coercion, intimidation tactics, stalking, and obsession are also of interest because they typically foreshadow harsher, more severe instances of the crime. O'Neil and Morgan (2010) states that sexually violent acts or behaviors are linked and build on one another. Among adolescents aged 15-19 years in high schools in Ethiopia, research has shown that sexual risk behaviors are associated with the perception of risky sexual activity as being normal (Srahbzu & Tirfeneh, 2020). Sexual violence is more prevalent in cultures that involve unequal power dynamics amongst its people (Kalra & Bhugra, 2013). Before a predator commits an act of sexual violence, he or she may participate or agree with sexist language or certain attitudes supporting sexual violence. For example, ideologies of male dominance and toughness in men and weakness in women were reportedly associated with self-reported likelihood of raping or using sexual coercion (Kalra & Bhugra, 2013). These nuances can create an environment in which sexual violence seems normal and is inadvertently reinforced. Sexually violent behaviors are legally judged according to severity (O'Neil & Morgan, 2010). Therefore, perpetrators of sexual harassment will not be penalized the same as perpetrators of rape.

Previous Literature

The literature focuses primarily on the perpetrator's behaviors of committing sexual violence, omitting information about the behaviors of the victim. Research in the field has progressed to redefining sexual violence to include all nonconsensual sexual acts, shifting people's attitudes towards supporting the victim, and holding the perpetrator accountable

(McMahon, 2011). Still, there are noticeable differences in how the public and experts in the field perceive causes, outcomes, and solutions related to sexual violence (O’Neil & Morgan, 2010). It is possible that the general public has ideas about victims and perpetrators that fall behind those of advocates and experts in the field (McMahon, 2011). Men are more likely than women to view sexual violence as isolated incidents of individual misconduct (Young, 2018) and victims are particularly susceptible to being held accountable for the outcome (Bieneck & Krahé, 2010). Victims of sexual violence are faced with long-term effects, such as poorer health, suicidal ideations, and financial strain (Dworkin et al., 2017). The gap in understanding about sexual violence between experts in the field and the general public, may leave victims to carry the burden of the traumatic experience alone. Sexual violence experiences might be somewhat less distressing if victim advocacy is improved. Victim advocacy could be improved by increasing the understanding of how victims make decisions in sexual violence experiences.

Victim advocates are beneficial in assisting victims with their case and connecting victims with experts to provide aid in recovering from the trauma. In a study of rape crisis center services, researchers found that advocates are frequently rated as helpful and supportive by victims (Wasco et al., 2004). Understanding how attitudes and beliefs about sexual violence have changed over the years might provide the field with the direction it needs to engage communities in ways that will help them better understand the issue. This paper serves as an attempt to gain some insight on the gaps in literature regarding the behaviors of potential victims. By attempting to understand people’s behavior and perceptions as potential victims, we can better understand and predict how people may react in and after a potentially sexually violent situation. We also aim to better unveil the complexities in how people perceive what is safe and what is unsafe. With this knowledge, we may also better understand the circumstances that are most likely to

lead to sexual violence so that people can avoid them. Knowing more information about victims of sexual violence aims to prevent more people from becoming one.

Victim response to sexual violence is emerging as an important aspect of research. Victim responses are still considerably misunderstood by members of the public, law enforcement officials, and by the victims themselves. Haskell and Randall (2019) states, "...rape myths reinforce unreasonable expectations of how victims *should* respond to sexual assaults – specifically that victims should react to experiences of sexual violation, which are often unnerving, humiliating, and destabilizing, with calm, strategic planning, and decision making" (p. 09). Experiencing sexual violence is traumatic, and trauma impacts our brains and nervous system (Chivers-Wilson, 2006). In these situations, victims may not always have the ability to make decisions to protect themselves. While there are common responses to sexual violence, victim responses are never the same and cannot be predicted. Some common responses to sexual violence include, but are not limited to, freezing during the occurrence, not firmly saying no to unwanted sexual contact, and not being able to recall what happened. Survivors of sexual violence can develop PTSD and it is by far the leading cause of PTSD in women (Chivers-Wilson, 2006). If some of the cognitive processes involved, such as perception, reasoning, and decision making, were better understood, subsequently, sexual violence occurrences may also be better comprehended. For example, in a situation where one might experience sexual violence, they may respond in a way that appeases the offender by complying with the offender's advances. Common myths suggest if the victim doesn't resist, they wanted the sexual activities to occur (Elmore et al., 2020). Understanding the cognitive processes that may be employed in traumatic situations allows for a better understanding of why the victim responded by appeasing the offender, rather than resisting the offender. Though there is no perfectly predictable response

to the imminent threat of sexual violence, this research aims to further explore responses to potential incidents of sexual violence.

Purpose of the Study

In this study, we will examine the decision-making processes of people in imaginary situations in which they might experience sexual violence. The decisions of victims of sexual violence are taken into great consideration when such cases are investigated (Cybulska, 2007; Spohn, 1991). Common rape myths, such as those stated earlier in the text, may be the subject of inquiries from prosecutors and other parties involved in the case. Questions may be asked alluding to those myths such as if the victim acted flirtatiously, was the victim dressed in revealing or suggestive clothing, was the victim under the influence of drugs and/or alcohol, and did the victim clearly say no to unwanted advances. Despite answering these questions, victim decision making may still be difficult to understand because of its complex mixture of factors including, but not limited to, situational, emotional, neurological, cultural, and economical factors. The Washington Coalition of Sexual Assault Programs (n.d.) reported that abiding by traditional gender role norms, being in a family environment that lacks emotional support, and having inadequate employment opportunities increases the likelihood of sexual violence occurrences.

Our focus on victim decision making in potentially sexually violent situations is not to place blame, condemn, or criticize the victim. Additionally, we have no intention of defending the actions of the offender. Our efforts strive to bridge the gap between what is generally perceived about how victims should respond and how victims actually respond. It is commonly acknowledged in behavioral science that examining choice behavior using hypothetical measures helps predict how people will act in actual situations (Madden et al., 2003; Madden et al., 2004).

Delay discounting has been linked to rapid, unplanned reactions to internal or external stimuli (Reimers et al., 2009). Laboratory-measured delay discounting has been reliable in assessing risk-related behaviors, traits, attitudes, and criminal outcomes (Mishra & Lalumière, 2016). Examining different responses to varying levels of risk is critical in increasing knowledge about the factors that precede acts of sexual violence and perceptions the victim may possess regarding the situation.

Probability Discounting

In exploring victims' decision making in relation to sexual violence, the *discounting* process can be used as a behavioral mechanism to understand choice. Discounting describes devaluation of an outcome as a function of the delay or probability of the outcome (Odum, 2011). Probability discounting is commonly defined as the degree to which a behavioral outcome loses potency to affect behavior as the likelihood of that potency decreases (McKerchar & Renda, 2012). Discounting is connected to behavioral theories of choice behavior that include conscious deliberation. Discounting research typically uses monetary outcomes to characterize choice behaviors, for example, a small but definite amount of money could be offered versus a larger, probabilistic amount (e.g., \$200 for certain vs. \$2,000 with a 35% chance; Green & Myerson, 2004). The definite amount of money steadily increases, and participants are asked to choose between the two amounts until the definite amount of money is preferred to the probabilistic amount. Probabilistic rewards are perceived as a series of repeated bets, where the lower the probability, the longer the average number of times the wager must be made before the wins happens, and thus the longer one must wait. Discounting research has also been used to make discoveries about non-monetary outcomes regarding addiction to drugs, gambling, and

deciding preference for sexual partners (García-García et al., 2014; Gorzelańczyk et al., 2021; Lawyer et al., 2010; Madden et al., 2009; Story et al., 2014).

Probability discounting is prominent in the legal arena (Weatherly et al., 2012). Both plea bargains and settlements represent a form of discounting and almost all criminal and civil cases are resolved by plea bargains (Greene & Heilbrun, 2012; Sweeney & Haney, 1992). Research suggests that discounting rates could differ depending on the type of outcome being discounted (Weatherly et al., 2012). Hardisty and Weber (2009) revealed differences in discounting rates among monetary, environmental, and health-related outcomes. Many legal decisions are made using probability discounting; however, no research exist examining systematic probability discounting as it relates to sexual violence.

Every day we are presented with a variety of choices with risk implications, such as what we eat, where we go, and who we interact with. At times, we may be unsure about these decisions. In a study providing participants with two alternatives that differed only in likelihood, research showed that participants tended to select the more assured outcome (Green & Myerson, 2004). The same general principles apply to risky decision making. People often engage in risky behavior because they underestimate (i.e., discount) the potential negative consequences that may occur in the future (O'Donoghue & Rabin, 2001). For example, individuals might smoke cigarettes despite being aware of the long-term health risks associated with smoking. The guaranteed pleasure or immediate benefits received from smoking outweigh the uncertainty of the potential negative outcomes associated with smoking. Between gamblers and non-gamblers, gamblers discounted probabilistic rewards more shallow than non-gamblers, suggesting that gamblers fail to take risk into account more than non-gamblers (Ramnerö et al., 2019). When

offered a bet with a low probability of winning, gamblers may be more inclined to take the bet due to the devaluation of potentially losing.

Probability discounting also influences the ability to delay gratification (Holt et al., 2003). Individuals who heavily discount future outcomes are more likely to opt for immediate rewards demonstrating their inability to delay gratification (Myerson et al., 2003). This tendency can affect decisions related to saving money and pursuing long-term goals. Probability discounting can influence decisions relating to health and well-being (Rasmussen et al., 2010). For instance, individuals may choose to ignore the probabilities associated with engaging in unhealthy behaviors, such as overeating or neglecting exercise. They might prioritize immediate enjoyment or convenience over the potential long-term health consequences.

Probability discounting can also impact consumer choices (Fagerstrøm et al., 2016). People may be attracted to products or services that offer reliability and guarantees, even if the long-term benefits or value is uncertain or less favorable. Marketing strategies often utilize this tendency by emphasizing guarantee rather than long-term consequences. Understanding probability discounting and its implications in everyday decision making can help individuals make more informed decisions. By considering the long-term consequences, weighing risks and benefits, and resisting the temptation of immediate reward, individuals can make decisions that align with their long-term goals and well-being.

Everyday decision making and sexual violence are two distinct topics that may not have direct connection; however, the choices we make in our daily lives can contribute to the overall social and cultural environment in which sexual violence can either thrive or be challenged. It is important to address the issue of sexual violence and the role that decision making can play in preventing or responding to such incidents. Everyday decision making can contribute to

prevention efforts of sexual violence (Basile et al., 2016). An important aspect of sexual violence is consent. In our relationships, interactions, and encounters with others we can create an environment which fosters a culture of respect and empathy. Everyday decision making involves recognizing and respecting the boundaries and autonomy of others, as well as setting and communicating boundaries of our own. Respecting the boundaries of others is vital in preventing sexual violence. Everyday decisions regarding our language, attitudes, and behavior can challenge or perpetuate harmful stereotypes and biases that contribute to the prevalence of sexual violence. By being mindful of our own biases and working to challenge them, we can contribute to a more inclusive and equitable society that values and respects all individuals. Engaging in conversations about healthy relationships and sharing resources with others increases our own understanding and raises awareness within our communities. Everyday decisions can include seeking knowledge about sexual violence including how to respond to disclosures of sexual violence and how we support survivors. By actively listening and validating survivors' experiences, we can create safer spaces for survivors to come forward and seek help. We can contribute to a society that values consent, equality, and respect by opposing victim-blaming, objectification, and dehumanization of others. Supporting survivor-centered approaches helps break the cycle of victim-blaming and dismantle rape culture - the set of beliefs, norms, and attitudes that trivialize or normalize sexual violence. Everyday decision making is a mere aspect of sexual violence, but it can contribute to shaping the cultural context in which sexual violence occurs.

In this study, we are extending the use of a well-established behavioral economic measure of decision making—probability discounting—to a new area (i.e., sexual violence). We are using probability discounting as a natural research tool to study how people make decisions

when faced with a potential risk of sexual violence. During this study, people are essentially trying to estimate the likelihood of sexual violence happening to them. Probabilistic thinking enables us to determine the most likely outcomes more accurately in situations influenced by an array of complex variables. To our knowledge, there has never been research on how people make decisions in situations relating to sexual violence using probability discounting. It is important to validate the technique before using it as a tool to ask other research questions. Research from Lawyer et al. (2010) used discounting to measure decision making related sexual outcomes, finding that decision-making patterns for hypothetical erotica were similar to those for money in many participants. Though innovative, research describing decision-making for erotica does not necessarily relate to decision making more closely relevant to sexual violence. That is, it seems unlikely that someone seeking sexually exciting experiences will influence whether they will engage in activity that could increase their chance of experiencing sexual violence.

We are attempting to determine if we can measure how people make decisions when faced with different degrees of risk related to sexual violence. Understanding the perceptions and potential decisions people make in risky situations are important antecedents to health-related behaviors and other behaviors that experts advise for mitigating or avoiding risks. Precariousness related to risk are related to the ambiguity, unpredictability, or probability of the outcome (Paek & Hove, 2017). That is, when a scenario is vague and the magnitude of severity is unknown, people feel uncertain. The purpose of the present study is to examine how decisions are made when people feel they might experience sexual violence. We hypothesize that the likelihood of participants choosing to stay in the hypothetical situation and/or continue to engage with the potential offender will increase as sexual violence becomes less probable. Likewise, we predict

the likelihood of participants choosing to leave the hypothetical situation and disengage with the potential offender will increase as sexual violence becomes more probable.

CHAPTER TWO

METHOD

Participants

The study included undergraduate students from Georgia Southern University ($n = 157$) recruited from introductory psychology courses. To be eligible for the study, participants had to be at least 18 years old. Data from ($n = 11$) participants were excluded from analyses because participants failed to complete more than one discounting task. Participants were recruited through the Psychology Department's on-line recruitment website, SONA Systems (<https://www.sona-systems.com/>). The psychology department at Georgia Southern University requires undergraduate students enrolled in the Introduction to Psychology course to fulfill the departmental research participation requirement and serve as participants in research (or complete a research alternative). Participation in a study generally earns one credit per hour of involvement. That is, studies lasting less than 30 minutes are worth .5 credit. All participants received 0.5 course credit for their participation, as our study took approximately 30 minutes to complete.

Of the included participants, the majority were female ($n = 116$; 79.45%) and the average age of all participants was 20.18 years ($SD = 3.14$; range = 26). Participants reported their race or ethnicity as being White ($n = 85$; 58.22%), while others reported Hispanic ($n = 5$; 3.42%), Black ($n = 28$; 19.18%), Asian ($n = 1$; .68%), or biracial ($n = 27$; 18.49%); participants were able to select one or more race or ethnicity that best described them. In terms of relationship status, 88.36% ($n = 129$) reported being single, while the rest reported being married ($n = 4$; 2.74%),

divorced/separated (1.37%; $n = 2$), or unmarried but living with his/her partner (7.53%; $n = 11$). Most of the participants identified as heterosexual (70.55%; $n = 103$).

Materials

All materials were created in Qualtrics, an online survey tool. Qualtrics allows us to distribute surveys and analyze responses from a convenient location. Students were able to access the survey using their own devices in any location of their choice.

Initially, participants were given an informed consent detailing the purpose of the study, procedures to be followed, discomforts, and risks. Each participant was notified of resources available at the Georgia Southern University Counseling Center, as well as available resources in the community, should they feel any triggering emotions following completion of the study. Students who choose to withdraw their consent or stop participating were still eligible to receive research credit. Also, students who chose to follow-up after the survey were referred to the university's counseling center.

Debriefing

After completing the study, participants were provided with debriefing information. The debriefing provided participants with information and clarification about the study. The debriefing explained the purpose and goals of the research to participants as well as addressing any ethical concerns. We ensured participants' rights and well-being were protected throughout the research process by ensuring the safeguard of the data collected. We addressed any potential psychological distress that may have arisen during the study. Participants were allowed to contact us with any questions about any aspect of the study. We also provided additional

information of resources to offer support should participants feel any distressing thoughts or emotions. The debriefing form can be found in APPENDIX C.

Demographics

Students were asked questions about their background to collect basic demographic information. The questions included information about their current age, sex assigned at birth, race/ethnicity, current marital status, and sexual orientation.

Sexual History

We developed sexual history questions to monitor for possible sexual trauma and history. Asking about sexual history helps to identify any potential differences in responses between participants who possibly experienced sexual violence from those who have not. We created the sexual history questions to include all aspects of experience with sexual violence including personal or someone they know. It is important to study one's history of sexual violence because having a history of sexual violence is associated with an increased likelihood of engaging in risk-taking behaviors (Taylor et al., 2012). Identifying people who have experienced sexual trauma from those who haven't is not a specific research goal at this time, however, it might be an important variable to control for. All sexual history questions are listed in APPENDIX A.

Probability Discounting Task

To our knowledge, there are currently no studies that quantify the decision-making processes of people who are in risky situations in which they may face sexual violence. Although probability discounting is a widely used tool to study decision making (McKerchar & Renda, 2012; Myerson et al., 2003; Richards et al., 1999), it has not been validated as a task for use in studying behaviors related to sexual violence. Therefore, this task will attempt to measure the

decision making of people related to sexual violence. In this study we will be asking participants to imagine scenarios in which there is a potential threat of sexual violence. The responses will be used to determine an indifference point corresponding to the subjective value of the probabilistic outcome. An example of one of the scenarios:

“One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is a 50% chance (5 out of 10) of something bad happening. How likely are you to go over to their house for dinner?”

Scenarios have been used in psychology to study various psychological phenomena, for example, elements of paranoia and social anxiety (Rose et al., 2019) and pessimism (Raune et al., 2005). Employing scenarios along with the discounting procedure has been used in research concerning hypothetical sexual outcomes (Lawyer et al., 2010). Scenarios have also been used to study how individuals respond to hypothetical sexual assault cases involving victim and perpetrator alcohol use (for example, Untied et al., 2012). In the previously used scenarios, participants acted as spectators to examine the occurrences. We wanted scenarios in which individuals were participants in the scenarios, making the previously applied scenarios less useful. It is important to use a variety of scenarios that cover a wide range of situations and contexts. We used diverse scenarios to capture different decision-making contexts and ensure a more comprehensive understanding of probability discounting. By presenting participants with carefully constructed hypothetical situations, researchers can manipulate specific variables of interest while keeping other factors constant. For this study, the likelihood of sexual violence changes, while a potential offender in everyday activities remains constant. Sexual violence can

be a sensitive and ethically challenging topic. Providing participants with scenarios is a way to study these topics without directly exposing participants to potentially harmful or distressing experiences. Therefore, we can explore sexual violence while minimizing potential harm to participants. By presenting participants with realistic scenarios, we can observe how individuals respond, make choices, and engage in problem solving. This provides insight into how people anticipate and evaluate potential outcomes and make predictions about their own behavior or the behavior of others. To develop these scenarios, we applied methods of simulation heuristics- the propensity to determine the likelihood of an event based on the ease at which an individual can visualize (or mentally simulate) an event (Dale, 2015).

We also designed scenarios based on situations where crime is most likely to occur- known as the Routine Activity Theory (Clarke & Felson, 2017). The Routine Activity Theory can be a practical tool commonly used by crime prevention practitioners to identify and explain crime trends; arguing that when three elements converge- suitable target, motivated offender, and absence of guardianship- crime is likely to occur (Rossmo & Summers, 2015). In previous studies, routine activities of everyday life have been associated with increased victimization and offending (Daday et al., 2005). Through these hypothetical situations, we aim to emphasize the complexity of sexual violence cases. In such cases, the victim's relationship to the offender varies. Also, it was our intention for the scenarios to resemble actual environments (i.e., home, work, school, day, night, etc.). We hope these scenarios can serve as a starting point in studying decision-making in instances of sexual violence. All scenarios are listed in APPENDIX B. Participants saw each scenario in randomized order following the sexual history questions.

Procedure

The first Qualtrics "question" that participants saw was the informed consent notifying participants they will be partaking in a study about sexual violence. A PDF copy of the informed consent was available for download to the participants. Collecting informed consents with the participants signatures was not possible because it would be personally identifiable information that is not relevant to our study. Participants were prompted to answer *yes* or *no* to the consent form. If participants answered *no* to the consent form, they were directed to the end of the survey and thanked for their time. If participants answered *yes* to the informed consent, they then saw a demographic question as follows: What is your age? If participants typed in that they are under the age of 18, they were redirected to the end of the survey and thanked for their time. If participants typed in that they are 18+ they then saw an additional note describing the nature of the questions they were about to be asked. The note read:

Note:

For this survey you will be asked sensitive questions that involve sexual violence.

Though this is an imaginary experience, we realize that these questions could bring up negative thoughts and emotions. As researchers, we do not provide mental health services and we will not be following up with you after the study. However, we want to provide every participant in this study with a comprehensive and accurate list of clinical resources that are available, should you decide you need assistance at any time. Please see information pertaining to local resources at the end of this survey or contact us so we can provide that information.

We are not tracking who completes the survey and not collecting any personally identifiable data that could later be used to identify you. This survey is anonymous, and your responses cannot be identified.

After the note, participants were asked two practice questions intended to familiarize them with how to use the slider visual analogue scale. Qualtrics automatically coded the values to be between 0 and 100. Each question used a slider visual analog scale ranging from *extremely unlikely* (0) to *extremely likely* (100). Next, participants moved on to the randomized scenario questions in the discounting task. We created six scenarios to include different probabilities of sexual violence occurring. The different probabilities used in each scenario include: 90%, 50%, 10%, 1%, 0.3%, 0.1%, and .03%. These probabilities are often used in discounting research because they tend to lead to the best data relative to other probabilities that could be used (Rung et al., 2019). For these questions, participants responded to how likely they are to engage in the risky behavior. Across questions, but within each scenario, we asked them to imagine the likelihood of something bad (sexual violence/assault) happening. For example, “You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to get in the car?” In the following question, the likelihood of something bad happening might be 1%. Participants experienced all the scenario questions in randomized order. After completing all scenarios in the discounting task, participants were prompted to answer the sexual history questions to assess previous experience with sexual violence. Participants saw another note explaining that they will be asked questions about their sexual history. The note read:

Note:

The following questions will be asked about your sexual history. Should you feel any negative thoughts and/or emotions, we have provided a list of clinical resources at the

end of this survey that are available to you. Again, this survey is anonymous, and your responses cannot be identified.

After the sexual history questions, participants saw the remaining demographic questions to include race and/or ethnicity, sex assigned at birth, marital status, and sexual orientation. Lastly, participants saw a debriefing form on their screen with useful resources should they want further assistance on the subject matter.

Data Analysis

All analyses were conducted in GraphPad Prism and Excel. Data from Qualtrics was first processed to prepare the data for further analysis. This involved creating demographics tables and transforming other survey data into a tidy format (Wickham, 2014). For the probability discounting task, we fitted discounting curves, median indifference points, and calculated area under the curve (AUC) for each scenario. A repeated measures ANOVA was also completed to determine if there were differences in discounting across scenarios. Data from the hypothetical decision-making portion of the study was transformed into commonly used summary measures (e.g., AUC; Green et al., 2001) and curvilinear models (hyperbolic; Mazur, 1987) to fit the data describing the process of decision making. The hyperbolic model shows the discounting pattern of safe behavior as odds of sexual violence increase. The hyperbolic model is

$$V = \frac{A}{1 + k\theta}$$

where V is the percent safe behavior, A is the maximum level of safe behavior fixed at 100, θ is the odds against sexual violence, and k is the free parameter that describes the degree of discounting. We used “odds against” as the standard to measure behavior decreasing as the

likelihood of sexual violence increases. Essentially, “Odds against” represents the likelihood of no sexual violence.

The AUC is a common metric used in various fields, such as machine learning, statistics, and data analysis, to assess the quality or effectiveness of a model, classifier, or predictor (Myerson et al., 2001; Tötsch & Hoffmann, 2021; Vickers et al., 2011). The formula for AUC is

$$AUC = \frac{\sum \left(\frac{Y_i + Y_{i+1}}{2} \right) (X_{i+1} - X_i)}{\max(X) \max(Y)}$$

where X is odds against sexual violence and Y is percent safe behavior. In general, AUC converges all the indifference points into a single measure (Myerson et al., 2001). The AUC ranges from 0 to 1, with 1 indicating complete safe behavior. We used AUC because it is theoretically neutral and may be used with both individual and group data analysis (Myerson et al., 2001). Calculating the AUC involves finding the area between indifference points as they were plotted on a graph. The coordinates (adjacent indifference points at various probabilities) form trapezoids that are summed to equal AUC. The steeper the discounting (i.e., the more quickly the curve decreases), the smaller the AUC (Myerson et al., 2001). We correlated AUC across the tasks (i.e., scenarios) to determine if there were similarities in the degree of discounting.

We conducted the correlation analysis using Pearson’s Correlation Coefficient (r) in GraphPad Prism. The correlation analysis revealed the strength and direction of the relation between scenarios. The correlation analysis allowed us to explore the associations between the scenarios, identifying the strongest and weakest correlations. We were also able to quantify the degree to which associations exist.

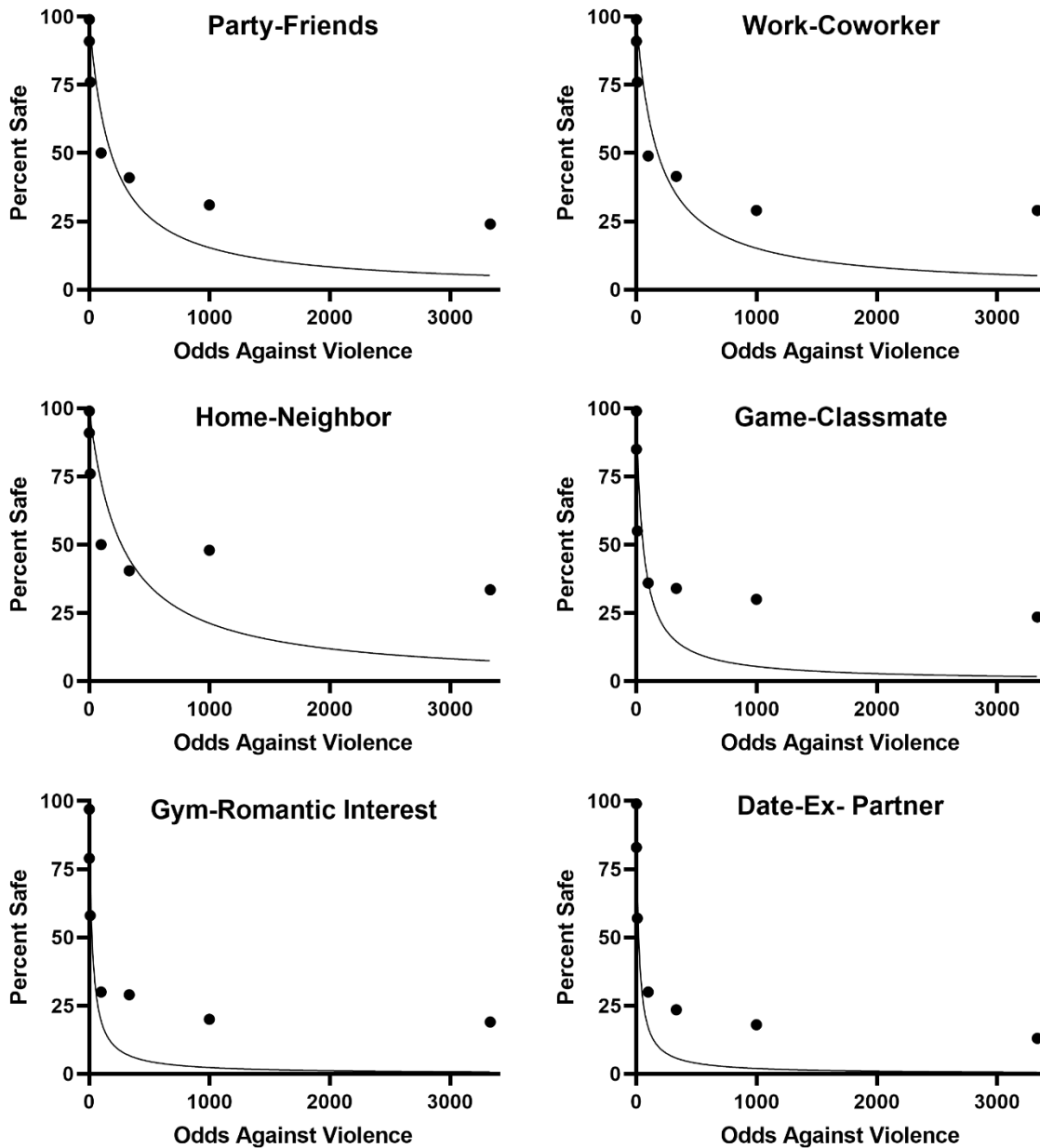
CHAPTER THREE

RESULTS

Figure 1 shows the median indifference points and discounting curves for each scenario. Typically, discounting curves depict the declining subjective value of an outcome as the delay to its receipt increases (Shead & Hodgins, 2009). For this study, the horizontal axis (X) represents the likelihood of not experiencing sexual violence, while the vertical axis (Y) represents the likelihood of engaging in a safe behavior. The discounting curves describe the pattern of how individuals discount their safe behavior as the odds against sexual violence increase. Steeper curves indicate a higher degree of discounting, meaning that individuals are behaving safely. The discounting curves showed that there were no apparent differences across scenarios. Particularly, as the odds against experiencing sexual violence increase, the degree of safety decreases.

Figure 1

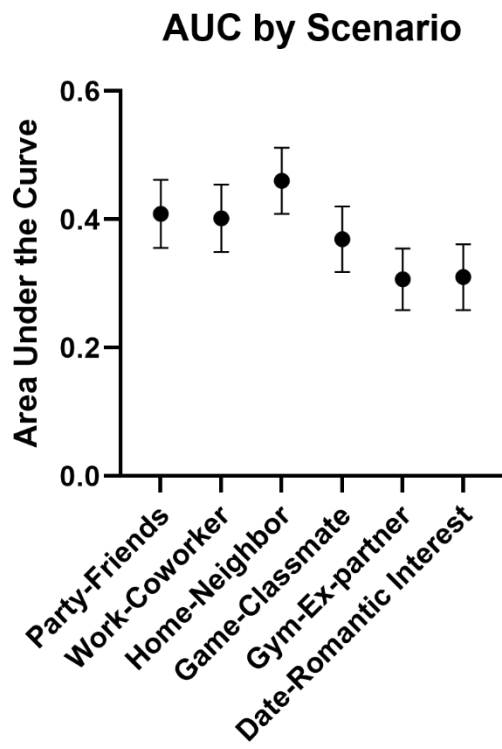
Discounting Curves for each Scenario



Note. The figures display the discounting curves and median indifference points for each scenario. The x -axis shows the odds against sexual violence and the y -axis shows the level of safety.

Figure 2 shows mean AUC with 95% confidence intervals for each scenario. A single AUC value represents the overall degree of discounting for a single person for a single scenario. The AUC values show three scenarios being similar towards the average of all AUC values. The AUC for the “Home-Neighbor” scenario was the highest, indicating participants behaving safer. The AUC values show the “Gym-Ex-partner” and “Date-Romantic Interest” scenarios were lower than the average of all AUC values. We conducted a repeated measures ANOVA to determine if there were differences in discounting across scenarios. The overall result showed a main effect of scenario [$F(4.57, 657.5) = 13.43$], with a Geisser-Greenhouse correction, indicating AUC was different across the scenarios. For post-hoc comparisons, we conducted Tukey’s HSD. Table 1 provides the mean difference between each scenario and the associated t -statistics and p -values. The largest difference was between the “Home-Neighbor vs. Gym-Ex-partner” scenarios ($MD = 0.15, t = 9.50, p < .001$), indicating individuals behaved safer in the “Home-Neighbor” scenario than the “Gym-Ex-partner” scenario.

Figure 2



Note. The figure shows AUC values for each scenario with 95% confidence intervals. The minimum possible AUC was 0; maximum possible AUC was 1.

Table 1

Pairwise comparisons table for RM ANOVA on AUC by Scenario

Scenario Comparisons	Mean Difference	<i>t</i>	Adjusted <i>p</i>
Party-Friends vs. Work-Coworker	0.01	0.37	1.000
Party-Friends vs. Home-Neighbor	-0.05	3.21	0.214
Party-Friends vs. Game-Classmate	0.04	2.48	0.500
Party-Friends vs. Gym-Ex-Partner	0.10	5.37	0.003

Party-Friends vs. Date-Romantic Interest	0.10	5.51	0.002
Work-Coworker vs. Home-Neighbor	-0.06	4.00	0.059
Work-Coworker vs. Game-Classmate	0.03	2.08	0.684
Work-Coworker vs. Gym-Ex-partner	0.09	5.02	0.007
Work-Coworker vs. Date-Romantic Interest	0.09	5.67	0.001
Home-Neighbor vs. Game-Classmate	0.09	6.88	<0.001
Home-Neighbor vs. Gym-Ex-partner	0.15	9.50	<0.001
Home-Neighbor vs. Date-Romantic Interest	0.15	10.02	<0.001
Game-Classmate vs. Gym-Ex-partner	0.06	3.93	0.067
Game-Classmate vs. Date-Romantic Interest	0.06	4.07	0.052
Gym-Ex-partner vs. Date-Romantic Interest	0.00	0.19	1.000

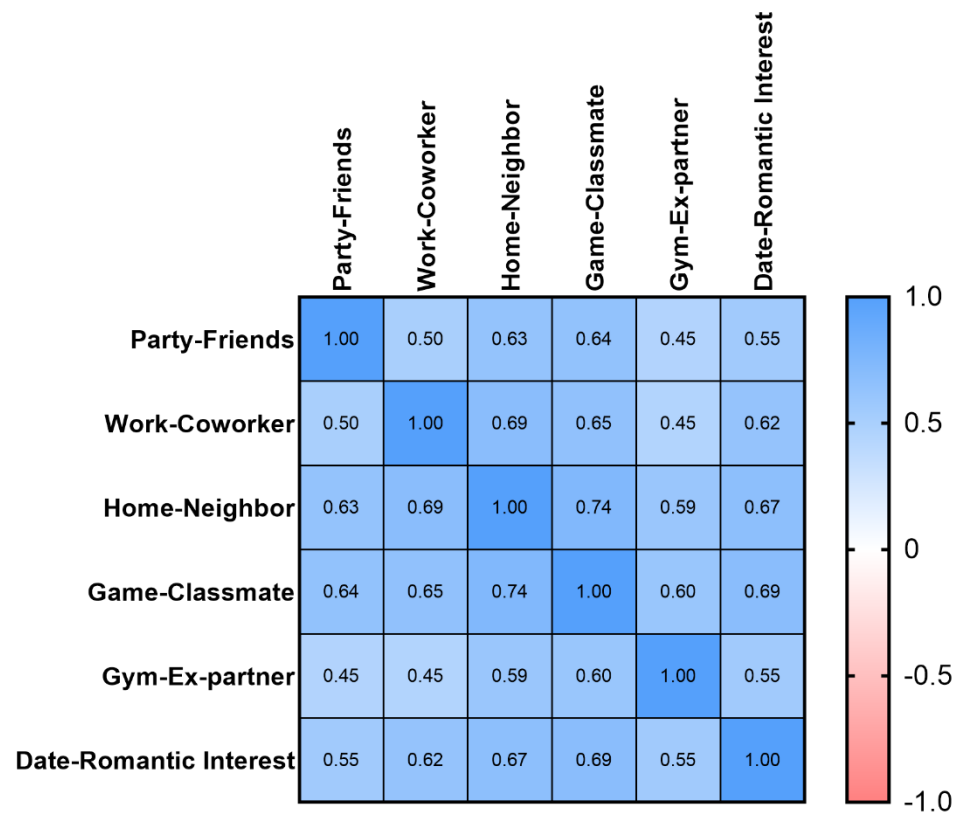
Note. The table provides the Tukey’s HSD adjusted p -values.

Figure 3 shows the Pearson correlation coefficients (r), between pairwise combinations of scenarios. We are using Figure 3 instead of a correlation matrix table. The colors in Figure 3 represent the strength of the relationship, where values closer to 1 are darker, indicating a stronger linear association. The values closer to 0 suggest a weaker association and are depicted in lighter colors. As a measurement of correlation ranging from -1 to 1, r allows us to analyze the relationship between scenarios and tells us the degree of association based on the variables being considered. All the correlation coefficients had a p -value of less than .001. When comparing the correlation coefficients between scenarios, we found that the “Game-Classmate vs. Home-Neighbor” scenarios were most alike ($r = 0.74$). The “Gym-Ex-partner vs. Party-Friends” and the

“Gym-Ex-partner vs. Work-Coworker” scenarios had the relatively weakest correlation, although still strong overall ($r = 0.45$).

Figure 3

Pearson Correlation Coefficients



Note. The figure shows the correlation coefficients between each scenario.

CHAPTER FOUR

DISCUSSION

The results of this study suggest that discounting can describe the process of decision making in scenarios where sexual violence might occur. The Probability Discounting Task utilized in this study provided a useful analysis of this phenomenon. The data from the probability discounting task looks typical in the usual statistical analysis of discounting data. For those discounting tasks, median indifference points and discounting curves for each scenario displayed a clear pattern that indicated participants were behaving relatively less safely as the odds against sexual violence increase. In other words, participants chose safe behaviors as the likelihood of something bad (sexual violence/assault) happening increased. Additionally, the repeated-measures ANOVA revealed a main effect of scenario. In other words, the scenario itself had a significant impact on participant's decision to engage in safe behavior. Finally, correlations between scenarios revealed decisions in all the scenarios were associated. These correlations indicated how participants made decisions in one scenario are similar to decisions in other scenarios.

The analyses conducted support our hypotheses in addition to providing valuable information regarding sexual violence. Our first hypothesis was supported, such that participants chose to stay in the hypothetical situation and continue to engage with the potential offender as the likelihood of sexual violence decreased. Our second hypothesis was also supported in that participants chose to leave the hypothetical situation and/or disengage with the potential offender as the likelihood of sexual violence became more probable. This study also supports the use of AUC values to study sexual violence. The systematic AUC values give evidence that participants

were able to effectively discount across scenarios. In summary, participants behaved safer as the likelihood of sexual violence increased across all scenarios.

Results from the study shed light on how individuals who might experience sexual violence could make decisions when they feel sexual violence might happen to them. Draucker et al. (2009) conducted a meta-analysis describing how participants with history of sexual violence behaved when they felt sexual violence might happen to them. Results from the study show participants became hyper vigilant, would remain in their homes, avoided settings that resembled the occurrence, exercised caution when in vulnerable situations, and developed a stronger discernment for potential danger (Draucker et al., 2009). Other research discusses sexual violence interfering with victim's sense of safety and eroding their confidence, likely to cause doubt in their overall decision-making (Burn, 2019). Based on our research, individuals who perceive the likelihood of sexual violence occurring are likely to leave the situation and disengage from the potential offender. When individuals perceive sexual violence as not likely to occur, they will choose to remain in the situation and engage with the potential offender.

Limitations

The analysis presented in this study has some limitations that should be discussed. The probability discounting task involves hypothetical outcomes rather than real-world outcomes. People's decision-making process can be influenced by various factors such as personal experiences, emotions, social norms, and situational cues. Without these real-world elements, the findings from hypothetical scenarios may not reflect how people would behave in actual situations. We realize the inability to capture the complexity of real-life decision-making which involves multiple factors and tradeoffs. Hypothetical scenarios typically simplify the decision-making process by presenting a limited set of options and variables. While this simplification

may not fully capture the intricacies and nuances of real-life decision-making, we believe the pattern of choices found in this study would remain the same if studied in naturalistic observation. In an experiment examining real and hypothetical rewards on degree of hyperbolic discounting across time delays, no significant effect of reward type was found (Madden et al., 2003). Another experiment studied choice and decision making among real and hypothetical monetary rewards, detecting the discounting rates for real and hypothetical rewards did not significantly differ (Locey et al., 2011). These studies add to the evidence that supports using hypothetical outcomes to estimate discounting rates and decision-making in everyday life. However, these are hypothetical scenarios about engaging in risky behaviors; people may have different risk perceptions compared to real-life situations. The absence of real-consequences and emotional stakes in hypothetical scenarios can result in distorted risk assessments and inaccurate probability discounting. Concerns may exist about the lack of pressure and sense of urgency associated with actual decision-making. Improvement of the scenarios can help mitigate scenario biases. As an alternative, real-life versions of this task would be unethical.

Another limitation includes participants being undergraduate college students. College students in the United States are characteristically 18- to 22-year-old white women who often share common socioeconomic status (Henrich et al., 2020). People's decision-making can vary depending on cultural background, socioeconomic status, and personal values. Therefore, generalizability may be limited. It is possible that results found in this study may change if participants were of other demographic characteristics.

Future Directions

Furthermore, future research might address concerns about the scenario-based questions by employing improved real-life contexts and including scenarios with tangible consequences to

bridge the gap between hypothetical and real-life decision-making. Also, future research could recruit a more diverse population that is more representative of all people.

With our research, correlational analysis informs us on how situational factors, such as the location or the nature of the relationship to the offender can influence how individuals make decisions related to sexual violence. Participants made safer decisions in the “Home-Friends” scenario, which is notable being that most incidents of sexual violence occur in or near the victim’s home (Capasso et al., 2021). Future research might also address interactions between scenarios to allow us to gain a more comprehensive understanding of the factors that contribute to discounting behavior. AUC values also offered insight as to what factors might influence the decision-making process in potentially sexually violent situations. The lowest reported AUC value was in the “Gym-Ex-partner” scenario. From this we can conclude that participants behaved less safely with someone whom they had previously dated. Considering situational factors facilitates the understanding of the contextual influences on decision-making related to sexual violence. Situational factors do not justify or excuse the perpetration of sexual violence but help to convey useful information about the variables that might influence the perception of safety and help inform prevention strategies. Future studies in this area could more carefully manipulate the features of the scenario or carefully conduct component analyses to determine how specific features like location or nature of the relationship between offender and victim affect choices. Participants reported behaving safely across scenarios which alludes to their comprehension and attitudes regarding factors of sexual violence such as consent, boundaries, power dynamics, and awareness. Individuals’ level of knowledge and awareness about sexual violence, consent, and healthy relationships can affect their decision-making. Recognizing the signs of coercion or non-consent and being aware of the consequences of sexual violence can

tailor individuals' approach in making decisions related to sexual violence. Personal values and beliefs such as respecting boundaries and the inherent worth and dignity of individuals influence how individuals perceive and respond to situations involving sexual violence (Kalra & Bhugra, 2013). Also, the ability to empathize and consider the perspectives and experiences of others is important when making decisions related to sexual violence (Moore & Mennicke, 2019). Empathy serves to guide individual actions by emphasizing its impact on others.

The analyses presented here still provide general patterns and tendencies that are valuable insights into understanding decision-making related to sexual violence. The present research shows individuals behaving less safe as the likelihood of sexual violence decreases. Sexual violence is a complex societal issue with multiple underlying factors, and addressing it requires comprehensive efforts at various levels, including policy changes, education, advocacy, and support systems (Alexander & Miller, 2022). Our current study adds to the growing literature on victims of sexual violence. The findings of the study emphasize the need for inclusive interventions to address and prevent sexual violence across different settings. While strategies to prevent sexual violence are still developing, this research is beneficial in the efforts to provide more education about how people make decisions regarding sexual violence.

Conclusion

Overall, this study assists in increasing our understanding of decision-making in situations of potential sexual violence and tells us that people make safe decisions when they perceive sexual violence to be likely. It is important to note that it is not our goal to place the burden of leaving such situations on the potential victim. We acknowledge the complexities and potential barriers that may be faced when deciding whether to leave or stay in a situation where sexual violence might occur. Numerous factors contribute to the decision-making process and

include the specific circumstances and context within which the incident occurs. Power imbalances, fear, and coercion can inhibit individuals from leaving or disengaging with the potential offender (Simms-Sawyers et al., 2020). Being that it is not always feasible or safe to leave situations of sexual violence, we ask that the reader interpret our findings with caution. Every incident of sexual violence should be treated on a case-by-case basis with importance and compassion to the victim.

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APPENDIX A
SEXUAL HISTORY

Do you have someone special in your life? Someone you're going out with?

Are you now – or have you been – sexually active?

Think about your most recent sexual experience. Did you want this experience?

Has a friend, a date, or an acquaintance ever pressured or forced you into sexual activities when you did not want them?

Has a friend, a date, or an acquaintance ever touched you in a way that made you uncomfortable?

Has anyone at home ever pressured or forced you into sexual activities when you did not want them?

Has anyone at school ever pressured or forced you into sexual activities when you did not want them?

Has any other adult ever touched you in a way that made you feel uncomfortable?

Do you have a friend that has ever experienced sexual violence?

Do you have a close family member that has ever experienced sexual violence?

Do you know someone who has ever been accused of sexual violence?

APPENDIX B

SCENARIOS

Party-Friends Scenario

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine you're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride. You are a little unsure about this person. You will be asked if you would get in the car with this person given different likelihoods of something bad happening.

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride. You are a little unsure about this person. You think there is 90% chance (9 out of 10) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride. You are a little unsure about this person. You think there is 50% chance (5 out of 10) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride. You are a little unsure about this person. You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride home. You are a little unsure about this person. You think there is 1% chance (1 out of 100) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride home. You are a little unsure about this person. You think there is 0.3% chance (1 out of 300) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride home. You are a little unsure about this person. You think there is 0.1% chance (1 out of 1000) of something bad happening. How likely are you to get in the car?

You're at a party and your friends left you behind. You are trying to get home and a familiar face offers to give you a ride home. You are a little unsure about this person. You think there is .03% chance (1 out of 3000) of something bad happening. How likely are you to get in the car?

Home-Neighbor

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine one afternoon, you're sitting at home and your neighbor knocks on the door to ask if you would like to come over to their house for dinner. You suspect

your neighbor is attracted to you. You will be asked if you would go over their house for dinner given different likelihoods of something bad happening.

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is 90% chance (9 out of 10) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is 50% chance (5 out of 10) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is 1% chance (1 out of 100) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think

there is 0.3% chance (1 out of 300) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is 0.1% chance (1 out of 100) of something bad happening. How likely are you to go over to their house for dinner?

One afternoon, you are sitting at home and your neighbor knocks on your door to ask if you would like to come over for dinner. You suspect your neighbor is attracted to you. You think there is .03% chance (1 out of 3000) of something bad happening. How likely are you to go over to their house for dinner?

Work-Coworker

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine you are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You will be asked if you would allow them to walk you to your car given the different likelihoods of something bad happening.

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 90% chance (9 out of 10) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 50% chance (5 out of 10) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 1% chance (1 out of 100) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 0.3% chance (1 out of 100) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 0.1% chance (1 out of 1000) of something bad happening. How likely are you to allow them to walk you to your car?

You are leaving late from work one evening and a coworker, who has been flirting with you recently, asks if they can walk you to your car. You think there is 0.03% chance (1 out of 3000) of something bad happening. How likely are you to allow them to walk you to your car?

Game-Classmate

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine it's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You will be asked if you would go back to your classmate's place to hang out given the different likelihoods of something bad happening.

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 90% chance (9 out of 10) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 50% chance (5 out of 10) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 1% chance (1 out of 100) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 0.3% chance (1 out of 300) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is 0.1% chance (1 out of 1000) of something bad happening. How likely are you to go back to their place?

It's Saturday night and you are leaving a football game with a classmate. They ask if you would like to go back to their place to hang out. You think there is .03% chance (1 out of 3000) of something bad happening. How likely are you to go back to their place?

Gym-Ex-partner

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go grab a healthy snack just as friends. You will be asked if you would go grab a snack with them given the different likelihoods of something bad happening.

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 90% chance (9 out of 10) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 50% chance (5 out of 10) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 10% chance (1 out of 10) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 1% chance (1 out of 100) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 0.3% chance (1 out of 300) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is 0.1% chance (1 out of 1000) of something bad happening. How likely are you to go do something with them?

Imagine you are currently single, and you run into your previous romantic partner at the gym. Things ended on good terms, and you are still physically attracted to them. Yet, you definitely don't want to date them anymore. After your workout, they ask if you would like to go do something just as friends. You think there is .03% chance (1 out of 3000) of something bad happening. How likely are you to go do something with them?

Date-Romantic Interest

Imagine a scenario where you think there is a given chance of something bad, like sexual violence, happening if you do {X behavior}. Something bad = rape, sexual assault, sexual coercion, sexual abuse, etc. There is a certain likelihood that these incidents will occur. You will be asked to choose if you would do {X behavior}.

For the next set of questions, imagine you are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You will be asked if you would go on a date with them given the different likelihoods of something bad happening.

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 90% (9 out of 10) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 50% (5 out of 10) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 10% (1 out of 10) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 1% (1 out of 100) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 0.3% (1 out of 300) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is 0.1% (1 out of 1000) chance of something bad happening. How likely are you to go on a date with them?

You are pleased that someone you've been attracted to has asked you out on a date. They suggest going to a secluded park for a nice picnic. You think there is .03% (1 out of 3000) chance of something bad happening. How likely are you to go on a date with them?

APPENDIX C

DEBRIEFING

Thank you for your participation in our study! Your participation is greatly appreciated.

Purpose of the Study:

We previously informed you that the purpose of the study was to study decision making in situations in which a person feels sexual violence might occur. The goal of our research is to better understand how decisions are made when people feel they might experience sexual violence in the future.

We realize that some of the questions asked may have provoked strong emotional reactions. As researchers, we do not provide mental health services and we will not be following up with you after the study. However, we want to provide every participant in this study with a comprehensive and accurate list of clinical resources that are available, should you decide you need assistance at any time. Please see information pertaining to local resources at the end of this form.

Please do not disclose research procedures and/or hypotheses to anyone who might participate in this study in the future as this could affect the results of the study.

Useful Contact Information:

If you have any questions or concerns regarding this study, its purpose, or procedures, or if you have a research-related problem, please feel free to contact the researcher(s), Jonathan E. Friedel, Ph.D. (jfriedel@georgiasouthern.edu), Shakeia Salem, B.S. (ss10066@georgiasouthern.edu), Maya Poole (mp22220@georgiasouthern.edu), or Katilyn M. Ashley Treem, B.S., (ka04833@georgiasouthern.edu).

If you have any questions concerning your rights as a research subject, you may contact the Georgia Southern University Institutional Review Board at irb@georgiasouthern.edu or (912) 478-5465

If you feel upset after having completed the study or find that some questions or aspects of the study triggered distress, talking with a qualified clinician may help. If you feel you would like assistance, please contact the Counseling Center:

Counseling sessions are scheduled by appointment. To make an appointment, you may visit the Counseling Center in person, or call 912-478-5541 (Statesboro) or 912-344-2529 (Armstrong/Liberty) 24 hours a day, 7 days a week. Students can also view a more extensive list of resources (including additional 24-hour resources) [here](#).

Need a same-day appointment for an urgent issue? Contact the Counseling Center to schedule a same-day solution session. The university system has also partnered with Christie Campus

Health to free individual counseling services to students; they can be contacted at 1-833-910-3369.

We have provided you with a list of other resources (see below) in case you become aware of your interest in seeking help to cope with your thoughts and feelings about your relationships with friends and family, or to cope with your emotional distress.

National Sexual Assault Hotline at 1-800-656-4673

National Sexual Violence Resource Center - <https://www.nsvrc.org>

National Suicide Prevention Lifeline – 1-800-273-TALK (8255)

SAMHSA Treatment Referral Helpline – 1-877-SAMHSA7 (1-877-726-4727)

Teal House Statesboro, GA- (912) 489-6060

Safe Haven Statesboro, GA- (912) 764-4605

Mary's Place Savannah, GA- (912) 233-3000

In a serious emergency, remember that you can also call 911 for immediate assistance.

Please keep a copy of this form for your future reference. Once again, thank you for your participation in this study!