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Attitudes on Legal Insanity and the Impact of Race

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ATTITUDES ON LEGAL INSANITY AND THE IMPACT OF RACE

PROFESSIONAL DISSERTATION

SUBMITTED TO THE FACULTY

OF

**THE SCHOOL OF PROFESSIONAL PSYCHOLOGY
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BY

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**IN PARTIAL FULFILLMENT OF THE
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Abstract

Jurors, representatives of the communities from which they are selected, are tasked with the responsibility of reaching a verdict in an impartial, unbiased manner. Previous research has found that bias and negative attitudes impact juror decision-making, despite practices that are in place to dismiss potentially biased jurors, such as *voir dire*. Studies have found a correlation between racial biases and juror verdicts. Additionally, a correlation has also been found between insanity defense attitudes and a juror's propensity to favor (or not favor) a Not Guilty by Reason of Insanity (NGRI) acquittal. However, there has been limited examination of the impact of racial bias on juror decision-making in cases of NGRI, as evidenced by a lack of available research in this area. The Insanity Defense Attitudes – Revised (IDA-R) scale is a validated measure of venirepersons (potential jurors) attitudes surrounding NGRI. The IDA-R and a demographic survey were issued to jury-eligible participants from a Midwestern state, following a NGRI case vignette featuring either a White or African American male defendant. All participants met minimum criteria to be an Ohio juror. Findings include the overestimation of NGRI pleas in criminal court, the underestimation of NGRI acquittals, and a correlation between higher IDA-R scale scores and Guilty verdicts among participants. Additionally, race of the participant appeared to predict final verdict for some groups.

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Thank you to the participants, who gave their time and effort to make this study meaningful for the researchers who continue along this journey and line of research.

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Dedication

For Elliott, whose busy little hands were a very active portion of this dissertation process. At least 5-10% of my time on this study was spent re-plugging in or re-opening my laptop, removing your hands from the keyboard, erasing your “contributions,” and apologizing for not being able to play with you when you tried to pull me away from the computer. I wouldn’t have had it any other way. For a project that had so much significance to me, I’m glad that you had some part in it. This was all for you.

A single line from you: “d ?V g \geq / \geq b,bh,hgx v//” – Elliott

Chapter I

Statement of the Problem

A juror's duty involves attending to the evidence presented in a case as impartially as possible in order to apply legal criteria and render a fair verdict (Skeem, Loudon, & Evans, 2004). Essentially, jurors are presumed to be "blank slates" in the legal system who are tasked with engaging in a decision-making process separate from any personal biases they may hold (Skeem & Golding, 2001). Forensic psychologists have shown a long-standing interest in the selection, decision-making, and characteristics of jurors. In fact, elements of jury selection and decision-making were among some of the very first studies published in the field of forensic psychology (Weiner & Hess, 2006). Specifically, the role that personal biases play in making impartial judgments has been widely studied. While the extent to which biases and attitudes can affect verdict decisions is debated, most researchers agree that they play a significant role in legal decision making and are difficult to control for in a courtroom (Bloechl, Vitacco, Neumann, & Erickson, 2007; Coons, 2018; Vitacco, et al., 2009).

Similarly, another legal issue that has captivated the attention of many researchers is the insanity defense. Not Guilty by Reason of Insanity (NGRI) as a defense is used in trial when a defendant, positing criminal non-responsibility by reason of mental disease or defect, might be legally acquitted for his or her criminal act(s). Used in only approximately 1% of all felony criminal cases (Callahan, Steadman, McGreevy, & Robbins, 1991), the NGRI defense is rarely used and defendants utilizing it are seldom

acquitted. The insanity defense has historically produced negative attitudes as a result of common misperceptions surrounding the defense (Perlin, 2017).

Furthermore, research thus far has determined that some intrapersonal factors likely influence jury decision-making in cases of NGRI. For example, Bloechl, Vitacco, Neumann, and Erickson (2007) found that negative attitudes regarding NGRI, such as its use as a means of getting away with a criminal act, were related to the likelihood that a juror would not vote in the affirmative for the insanity defense. These authors note that, “It remains likely that subjective and personal biases are frequently employed when determining the fate of a defendant in a trial in which the individual’s mental status is an issue (pp.159).” Juror biases and negative attitudes can be a cause for concern. When a NGRI plea is raised, jurors (or judges in bench trials) are responsible for making a determination about whether the individual was suffering from “mental disease or defect” at the time that the crime was committed. Thus, the examination of how negative attitudes and personal biases may influence that decision is critical.

One such bias that a juror might hold is related to race of the defendant. Previous research has established that African American defendants are often disenfranchised in the criminal justice system. In addition to the disproportionate number of African American prisoners (about half of those incarcerated) when compared to the general population (12%), African American defendants are also significantly more likely to be sentenced to longer prison terms and more likely to be sentenced to death (Coker, 2003; Baldus, Pulaski, & Woodworth, 1983; Mitchell, 2005). Further, race of the defendant also appears to play a significant role in jury decision-making (Cohn, Bucolo, Pride, & Sommers, 2009). An examination of defendants in Pennsylvania by Austin and Allen

(2000) found that the arrest rate of African American prisoners explained only 43% of the disproportionality in confinement rate. These authors suggested that it was therefore highly likely that race was influencing convictions and sentencing practices. While the racial biases of jurors and the jury selection process has thus far been well documented, these factors, when related to legal insanity has largely gone unexamined. With the exception of some dated findings that show African American defendants as significantly more likely to be acquitted NGRI than White men (Poulson, 1990), the research on juror racial biases in cases of legal insanity are severely lacking. In addition to fulfilling a need for research in this particular area, the results of this study might be helpful to individuals responsible for jury-related decisions and making informed choices that can reduce bias.

Aim and Purpose

This study aimed to examine bias of potential jurors in a Midwestern state. Attitudes around legal insanity were assessed. Additionally, this study elucidated whether racial biases are predictive of attitudes toward the insanity defense. Previous research has established that the insanity defense is misunderstood, that personal biases effect juror decision-making, and that racial biases implicitly can impact juror's verdicts; however, an examination of juror racial biases and its impact on NGRI decision making has been largely unexamined thus far.

Results from this study might be helpful in juror selection and for demystifying misperceptions surrounding the insanity defense. First, data about attitudes toward the insanity defense from jury-eligible citizens in the Midwest are dated (Silver, Cirincione, & Steadman, 1994). General information about NGRI beliefs in this geographical area could assist policy and decision makers on how to disseminate more accurate information

to potential jurors. Second, the examination of potential racial biases, particularly as it relates to NGRI cases, may ultimately aid in jury preparation and selection processes.

Significance of the Study

First, this study addressed the need for additional research on juror NGRI attitudes that incorporate a racial bias component. As previously stated, research that examines juror racial biases and their impact on cases of legal insanity has been overlooked thus far in the literature.

Next, results from this study also provided data about attitudes surrounding legal insanity from jury-eligible community members of a Midwestern state. Previous research found that the public overestimates the use and success of the insanity defense (Elmore, 2015). Should findings of the present study produce similar results, it would highlight the need address potential insanity defense misperceptions and the impact on jury decision-making. Additionally, decision makers of jury selection and processes can be more informed in order to educate jurors about verdict options. An opposite finding, however, would suggest that the public holds largely unbiased opinions regarding the insanity defense and that action may be less pressing.

Lastly, because attitudinal factors and biases can affect the verdict that a jury will render, it is important to examine the impact that these may have on jury decision-making. The objective of the current study was to gain a better understanding of the relationship between these attitudinal factors, racial biases, and decision making for jury trials for which a NGRI plea is raised. As a result, the ability to identify biased venirepersons may be improved. Further, understanding the public's views on these issues (as well as how they may differ with the race of the defendant) will enable

policymakers and legal professionals to make more informed decisions regarding jury selection and case outcomes. In addition, it may also provide the framework for rectifying possible public misperceptions. Specifically, if differences are found between groups that imply racial biases, several steps can be taken to reduce the impact of these biases in verdict decision-making among jurors. One example of an intervention may be making race a salient factor throughout the trial, which has been shown to reduce juror biases (Cohn, et al., 2009).

Research Questions

The objective of the present study was twofold: to examine legal insanity attitudes of jury-eligible citizens of a Midwestern state, and assess the potential impact of racial biases on a case of legal insanity. To that end, although research in this specific area is lacking, some predictions were made given previous empirical literature. This study explored possible misperceptions around legal insanity in this geographical area in order to assess changes from previous data, which found that the NGRI plea was perceived to be largely overused and more successful than it actually is (Callahan, Steadman, McGreevy, & Robbins, 1991; Perlin, 2017). In other words, this study seeks to establish current public opinion of the utility and prevalence of the insanity defense in this state. Additionally, given the disenfranchisement of African American prisoners, as well as this community's overrepresentation among NGRI cases (Dirks-Linhorst, 2013), it was also predicted that a significant difference would be found in verdict outcomes and insanity attitudes when the vignette defendant was African American. Overall, this study aimed to answer the following questions:

- Will potential jurors overestimate the percentage of criminal cases in which the insanity defense is raised when compared to the national rates reported by Silver, Cirincione, & Steadman (1994) based on the Post-Vignette Survey?
- Will potential jurors overestimate the percentage of NGRI cases in which the insanity defense is successful when compared to the national rates reported by Silver, Cirincione, & Steadman (1994) based on the Post-Vignette Survey?
- Will there be a significant difference ($\alpha = 0.05$) on the Post-Vignette Survey in the verdicts given on cases when the defendant is African American when compared to a White defendant?
- Will there be a significant difference in the individual item scores of the Insanity Attitudes – Revised (IDA-R) scale when participants respond to a vignette of an African American defendant ($\alpha = 0.05$)?
- Will there be a significant difference in index scores for the Strict Liability and Injustice and Dangerousness scales in the Insanity Attitudes – Revised (IDA-R) scale when participants respond to a vignette of an African American defendant ($\alpha = 0.05$)?

Definition of Terms

Language in the fields of psychology and law can easily become challenging when inundated with technical jargon. Thus, a definition of terms was created to reference terms and concepts used throughout this study.

Acquitted: The clearing of charges of a defendant, either because they are found not guilty, or because of a NGRI ruling.

Actus Reus: This legal construct involves conduct that is considered a “guilty act.” A criminal act must be established for a defendant to be found guilty.

Adjudicated: A judicial decision or decree

American Law Institute (ALI) Rule: Adopted in 1972, the ALI rule states that a person is criminally non-responsible if he or she lacks the ability to understand or appreciate the wrongfulness of their offense. This rule excludes deficits related to repeated criminal behavior and some personality disorders, such as Antisocial Personality Disorder.

Barnum Effect: A psychological concept by which individuals integrate information and assume its accuracy. One interpretation of the Barnum effect is the tendency to accept vague, nonsense information (such as horoscopes) as true. Another interpretation (and the one used in this study) relates to the phenomenon by which individuals remember remarkable events that stand out and assimilate that information to be generalized for all similar situations. An example, as it relates to this study, is that high-profile cases of NGRI that are in the news are generalized to the perception of most NGRI cases.

Conditional Release (CR): Arrangements in which a defendant is released from confinement to the least restrictive setting possible with a set of conditions he or she must maintain. If these conditions are violated, defendants are typically re-evaluated at a hospital before outcomes are determined by a Court. These conditions often include regular check-ins and mental health treatment.

Criminal Non-responsibility: An umbrella term used to describe a defendant who is found not guilty. It can also be used to describe NGRI acquittees, as well as NGRI equivalents (such as in Canada where insanity defenses do not exist; instead, a defendant can be found Not Criminally Responsible).

Durham Rule: Established in 1954 and currently only used in the state of New Hampshire, the Durham Rule is used to determine that criminal acts occurred because of mental disease or defect, and also establishes that the mental illness was present at the time of the offense.

Guilty but Mentally Ill (GBMI): GBMI verdicts are meant to establish mental health treatment in prison for a defendant without absolving him or her of legal guilt. GBMI is currently available in only 13 states.

Insanity Defense Reform Act (IDRA): The IDRA (1984) removed the volitional prong of the ALI rule, requiring proof of a defendant's inability to conform to the law and reduced the scope of expert testimony.

Irresistible Impulses Test: Not a widely used test due to the difficulty to assess, the Irresistible Impulses Test of insanity examines an individual's inability to control their behavior due to mental illness. Under this rule, a defendant is found legally insane if they were unable to control their own actions due to mental disease or defect.

Legal Insanity: “Insanity” is a legal concept (not a psychological one) in which a defendant is found by the Court to be criminally non-responsible for his or her criminal act(s) because of “mental disease or defect.” Rules for the qualification of legal insanity varies by jurisdiction and is not federally determined.

Mens Rea: Sometimes also called “guilty mind,” Mens rea involves intent to commit a criminal act and is often needed to establish guilt in court (with the exception of some crimes which do not require mens rea).

M’Naghten Rule: Based on the 1843 case of Daniel M’Naghten, the M’Naghten rule is a test of legal insanity in which the defendant, due to mental disease or defect, did not understand that his or her criminal act(s) were wrong. It is a rule still used currently in many jurisdictions in the United States, including the state of Ohio.

Not Guilty by Reason of Insanity (NGRI)/Insanity Defense: A plea used by defendants (and sometimes awarded by judges without a plea) in order to establish legal insanity.

Public canvassing: canvassing was used as a primary method of participant recruitment for this study. It involved being available in public areas where a substantial number of people were gathered and inviting people to participate in the study. While this term is mostly reserved for fundraising practices or to describe political candidates and volunteers targeting citizens to vote, in this context it refers to face-to-face communication with members of the public to inform them of the study and encourage participation.

Venire persons: Potential jurors who appear in Court for the jury selection process.

Voir dire: Examinations used to select or remove potential jury members for a case. It involves attorneys asking about backgrounds and potential biases, and usually a judge oversees this process.

Wild Beast Test: A test of insanity implemented in 13th century England, in which defendants were compared to “wild beasts” to assess if they knew right from wrong. If the defendant was considered to be legally insane if he or she acted in a way that showed impairment in understanding or memory, and behaved in the way a beast or infant (lacking that same understanding) might.

Chapter II

Literature Review

As previously stated, Not Guilty by Reason of Insanity (NGRI) is a defense used in court that implies a lack of responsibility for crimes committed as a result of mental illness or defect. In cases where the mens rea (intent to harm) criteria for criminal responsibility is not met, the defense may choose to argue the defendant's culpability at the time of the crime due to mental illness. "Insanity," however, is not a psychological or psychiatric construct, but a legal one designed to separate individuals who do not have the capacity to appreciate their unlawful conduct from those who do.

The legal definition of insanity was established in 1962 in *McDonald v. United States*, in which the judge defined insanity as separate from what the field of psychology would define as a mental disease or defect. Instead, legal insanity is determined by a judge or jury, and is tasked with determining criminal responsibility. Additionally, legal insanity is not limited to one diagnosis or class of psychiatric syndromes. The judge declared that a mental disease or defect "includes any abnormal condition of the mind which substantially affects mental or emotional processes and substantially impairs behavior controls." Additionally, the ruling established that jurors, not expert witnesses, will be ultimately responsible for determining if mental disease or defect is present in the defendant. The role of the expert witness, then, is to complete a thorough assessment of the defendant and provide the Court with his or her professional opinion and expertise as it relates to psychology and the law.

History of Legal Insanity

Mental illness, as defined by the law, is judged in court by a prescribed set of standards that vary by state and have been influenced by a number of cases in legal history. In order for a crime to exist, three elements must be present: a guilty mind or intent (*mens rea*), a proscribed act (*actus reus*), and a prescribed punishment (Blau, McGinley, & Pasewark, 1993). While *mens rea* is not a requirement for all crimes, the lack of a guilty mind is a requisite for the legal definition of insanity, and a lack of any one of these three elements suggests that the defendant cannot be found guilty because the crime does not exist (Blau, McGinley, & Pasewark, 1993).

Cases of insanity in legal systems can be traced back to as early as the 13th century when English kings would pardon crimes committed by those “suffering from madness” (Litwack, 1994). It was around this time that the “wild beast” test was initiated to determine legal insanity (Robin, 1997). This rudimentary test assessed individuals of knowing right from wrong and excused a criminal of responsibility when he was “totally deprived of his understanding and memory so as to not know what he is doing, no more than an infant, brute, or wild beast (pp.3)” (Litwack, 1994).

Tests of insanity became more sophisticated by 1843 when Daniel M’Naghten was found not guilty by reason of insanity for an assassination attempt on Sir Robert Peel, the English Prime Minister, and the murder of his private secretary (Wondemaghen, 2017). M’Naghten, under a partial delusion, believed that the Tory party was persecuting him, and that his actions were necessary in order to defend himself (Cutley, 2017). The M’Naghten ruling established one of the earliest guidelines for determining legal insanity and was rapidly adopted by criminal justice systems in both England and the United

States (Zapf, Golding, & Roesch, 2006). It established that, to be found not guilty by reason of insanity:

“Jurors ought to be told in all cases that every man is presumed to be sane and to possess a sufficient degree of reason to be responsible for his crimes until the contrary can be proved to their satisfaction, and that to establish a defense on the ground of insanity it must be clearly proved that, at the time of the committing of the act, the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing; or, if he did know it, that he did not know he was doing what was wrong.”

(M’Naghten’s Case, 1843, p. 722).

Although quickly accepted as the standard for determining insanity, it was not without criticism from experts within the field. Forensic psychiatrist Sir Isaac Ray remarked that the problem with the M’Naghten ruling lied in its assumption of rationality. He argued that often the “insane mind” can be perfectly rational and well-balanced (Litwack, 1994). More recent critics, such as Denno (2017), state that the semantics and language used in the M’Naghten rule are too vague and do not specify if “wrong” action refer to legal or moral behavior. It is also criticized for lagging behind psychiatric understanding of mental illness and the outdated use of the word “insane” (Catley, 2017). Because of its narrow scope, the M’Naghten rule, was later modified or rejected by some jurisdictions; however, some variation of the M’Naghten rule exists in many areas currently.

Approximately forty years later, the assassination of President Garfield sparked the concept and study of “irresistible impulses” (Zapf, Golding, & Roesch, 2006). This

event was the impetus of perhaps the first documentation of public perception on legal insanity, as public belief that insanity was too easy to feign brought about the question of uncontrollable impulsivity and the “irresistible impulse test.” This test indicated that individuals were not legally responsible for their criminal acts when the crime was connected to their mental disease. It implies that under the duress of this disease, the individual was unable to prevent their unlawful behavior and choose right from wrong (Litwack, 1994). This test was also criticized, as impulsivity proved difficult to ascertain. Additionally, it received strong objections from the public because it was thought that it excused the behavior of individuals unable to prevent their behavior (Litwack, 1994).

It wasn't until 1954 that the writings of Sir Isaac Ray, American psychiatrist, were revisited and his rule for legal insanity was adopted (Litwack, 1994). The District of Columbia Court of Appeals, in the case of *Durham v. United States*, modified the irresistible impulse test to produce the Durham rule (Zapf, Golding, & Roesch, 2006). Also known as the “product test” of insanity, the Durham rule asserted that an individual was not responsible for his or her unlawful behavior if the act was the result of a mental disease or defect (Robin, 1997). It called into question two issues in establishing legal insanity: if the offense was the product of mental deficits, and if the disease or defect existed at the time of the offense (Litwack, 1994). Although the intention of the Durham rule was to bridge the gap between courtroom and psychiatric concepts, it was largely rejected by judicial systems and expert witnesses due to criticisms involving terminology that was too difficult for jurors to understand and the difficulty associated with proving insanity beyond a reasonable doubt (Robin, 1997). Currently, the Durham rule is only

accepted as a guideline to ascertain legal insanity in the state of New Hampshire (Litwack, 1994).

One of the last major reforms (Pre-Hinckley) to occur in tests of legal insanity occurred in 1972 during the trial of *United States v. Brawner*, in which the United States Court of Appeals decided adopt the recommendations of the American Law Institute (ALI) and reject the Durham rule (Zapf, Golding, & Roesch, 2006). The Model Penal Code recommendations set forth by ALI ten years earlier asserted that:

“A person is not responsible if at the time of such conduct as a result of mental disease or defect he lacks substantial capacity to appreciate the wrongfulness of his conduct or to conform his conduct to the requirements of law.” (ALI, 1962, Section 4.01, pp. 61).

The ALI rule is widely-used because of its two-prong approach to examining legal insanity. The cognitive prong assesses whether or not the defendant understood that what he or she was doing was wrong, while the volitional prong assesses whether or not an individual’s mental illness prohibited the individual from conforming to the law. The Court also encouraged judges to emphasize nonconclusory testimony and narrow the focus of expert testimony to determining how a defendant’s cognitive functioning informed his or her behavior at the time of the offense (Zapf, Golding, & Roesch, 2006). The ruling was later amended to include that the mental defect should not include abnormalities as a result of repeated criminal or antisocial behavior, but this amendment is not yet universally accepted. In 1984, the Insanity Defense Reform Act (IDRA) led to the removal of the volitional prong of this rule following public outcry at the outcome of

the John Hinckley Jr. trial (Finkel, 1989). Some variation of the ALI rule has been adopted by more than half of the states and by federal jurisdictions (Litwack, 1994).

Additional reforms have been proposed. Cutley (2017) proposed the abolition of the insanity defense and instating a new defense that is more inclusive of medical conditions that may affect cognition and actions – Not Criminally Responsible by Reason of a Recognized Medical Condition. Reform such as this one would have the advantage of removing the stigma-laden term “insanity,” and also does not apply inappropriate labels (i.e., insanity) to conditions like epilepsy and diabetes, which have been applied for NGRI pleas. Additionally, it acknowledges that a criminal act was committed for which the defendant is guilty of, but acknowledges criminal non-responsibility. The authors imply that this reform might serve as a compromise between NGRI defenses and not guilty verdicts in the future. If legal insanity were to transform to be more inclusive of medical conditions and remove pejorative language (i.e., “insanity”), it might also have the added effect of removing an element of uncertainty and danger from public perception.

Guilty But Mentally Ill (GBMI) Verdict

Due to criticisms of legal insanity tests, as well as public perception related to the abuse of the insanity defense (Perlin, 2017), some have questioned if use of the defense should be abolished or adopt a narrower focus. In 1984, U.S. Congress adopted the Insanity Defense Reform Act after the attempted assassination of President Reagan in which the defendant, John Hinckley, was found not guilty by reason of insanity (Robin, 1997). Hinckley was diagnosed with schizophrenia (and a number of other differential diagnoses), and while his defense argued that he was unable to control his own actions,

Hinckley admitted that he understood that shooting the president was illegal (Robin, 1997). He was able to discriminate wrong from right, but because the issue of insanity was raised under the ALI rule, he was subsequently found not guilty by reason of insanity (Robin, 1997). Shortly after the outcome of this trial, the Insanity Defense Reform Act (IDRA) was signed into law by Congress.

The IDRA eliminated the need to prove a defendant's capacity to "conform his conduct to the requirements of the law," by excluding the volitional prong of the ALI rule (Finkel, 1989). Meant to be a compromise for the complete abolition of the defense, the IDRA had several shortcomings and was immediately dissented by the scientific community (Zapf, Golding, & Roesch, 2006; Finkel, 1989). Critics cited research with findings that the new focus only affected a small number of defendants, as well as research that negated the unfounded concerns of the public (Finkel, 1989). Furthermore, proponents of the IDRA from the American Psychiatric Association and American Bar Association failed to provide empirical support for their claims that the cognitive prong of the ALI rule offered a stronger scientific basis than the volitional prong (Rogers, 1987).

In a study of how insanity defense reform changed after the Hinckley case, Callahan, Mayer, and Steadman (1987) examined NGRI cases both pre- and post-Hinckley in all jurisdictions. In the three years following the John Hinckley case, 13 states made no changes in the insanity defense, while 38 states made significant reforms, including shifting and restricting tests of insanity. They comment that one of the largest reforms was seen in commitment to forensic institutions. As a result of the 1983 Supreme Court decision in *Jones V. United States*, the burden of proof to demonstrate insanity

shifted to the defendant and allowed for automatic, indefinite commitment. Further, *Jones v. United States* determined that:

“An insanity acquittee is not entitled to his release merely because he has been hospitalized for a period longer than he could have been incarcerated if convicted. The length of a sentence for a particular criminal offense is based on a variety of considerations, including retribution, deterrence, and rehabilitation. However, because an insanity acquittee was not convicted, he may not be punished. The purpose of his commitment is to treat his mental illness and protect him and society from his potential dangerousness.”

In order to test his theory that the IDRA would not produce different verdict patterns, Finkel (1989) used mock jurors to test the outcome of trials using the IDRA, ALI rule, “wild beast test,” and a control group (no instructions). No significant differences were found between instructions, essentially proving that the IDRA test did not do what its advocates hoped that it would. Opponents of IDRA also argued that the concept of guilt became muddled in NGRI defenses, for which the volitional prong of the ALI was vital. In the face of overwhelming evidence that insanity defense reform had thus far been ineffective, and in an effort to provide middle ground between guilty verdicts and NGRI verdicts, the Guilty but Mentally Ill (GBMI) verdict was created (Zapf, Golding, & Roesch, 2006).

Adopted by over 20 states, the GBMI verdict had the added component of providing opportunities for adequate mental health care in prison for those adjudicated GMBI (Kutys & Esterman, 2009). Considered as a verdict designed for “middle-of-the-road” jurors who struggle to decide between a NGRI and guilty verdict (Poulson,

Wuensch, & Brondino, 1998), GBMI is often chosen when presented as a verdict option over NGRI. Research suggests that the GBMI verdict is up to 2.5 times more likely to be used than guilty or NGRI verdicts when available as an option (Roberts, Golding, & Fincham, 1987); however, the GBMI verdict only makes sense if adequate treatment can be provided. GBMI verdicts may be chosen over NGRI when the defendant is not denying criminal responsibility but would like his or her mental health to be considered in sentencing outcomes. The intention of GMBI is to provide some form of mental health treatment in prison, without absolving the defendant of guilt (Robin, 1997). More recent research reveals findings consistent with Roberts, Golding, and Fincham (1987), in that GBMI was chosen more frequently than NGRI verdicts, but once participants were informed of the dispositional consequences of a GBMI verdict, defendants were perceived as less dangerous and were more likely to be given a NGRI verdict (Cotrone, 2017).

However, GBMI defenses are also not without criticism. As Rodriguez, Lewinn, and Perlin (1983) point out in their review of the insanity defense, GBMI is a guilty verdict and leaves the courtroom to decide only if the defendant's actions were influenced by their mental state at the time of the crime in order to receive some amendment to sentencing (most often this comes in the form of mental health treatment in prison). In other words, the judge or jury is only left to determine if the defendant's guilty act is negated by the presence of mental disease or defect. It creates dangerous implications through its semantic use, whereas "not guilty by reason of insanity" implies criminal non-responsibility.

In a study that assessed GBMI verdicts in the state of Georgia, Callahan et al. (1992) found that, while GBMI did decrease the likelihood of an insanity, defendants who were found GBMI received harsher sentences than their guilty counterparts, as evidenced by a longer incarceration period. Individuals found GBMI were most often taken to prison for mental health treatment and to serve their assigned sentences. Therefore, the authors argue, the GBMI verdict served only to acknowledge the presence of mental illness (and had the added impact of making sentencing seemingly more punitive through longer stays). Subsequently, this knowledge might make NGRI and GBMI pleas a less appealing option to mentally ill defendants.

Insanity Myths

Issues surrounding mental illness have long been misunderstood by the general public. Public perception around issues of legal insanity have great implications for understanding jury behavior, but research has found thus far that these issues are not well understood by many. A study of public attitudes toward individuals with mental illness consistently found that “members of the lay public view people with mental health problems with fear and dislike (pp. 209)” (Martin, Pescosolido, & Tuch, 2000). However, it appears that our views of individuals with mental illness has improved somewhat. Trends in mental health have reflected overall destigmatization over the last several decades. Researchers have noted that public knowledge of mental health issues has been more sophisticated, that the public is more open to mental illness disclosure, that the public as a whole is better at recognizing the symptoms of mental illness, and that responses to these symptoms have improved (Pescosolido, 2013). However, these same

trends do not appear to apply to mental illness within the legal context. Public misperception surrounding NGRI has been well documented.

Perlin (2017) has outlined nine “myths” of legal insanity that is contradicted by existing data. One of the myths that is most consistently found in the literature has to do with NGRI use and potential misuse. Specifically, it appears that the public feels that the insanity defense is overused and overestimates its rate of success. Although dated, Hans (1986) found that the public on average thought that the insanity was raised in criminal cases around 38% of the time and successful around 36% of the time. A more recent examination of public attitudes on legal insanity found that the use of legal insanity was overestimated about 81% of the time and that its rates of success was overestimated approximately 27% of the time (Elmore, 2015). Data on the actual percentage of NGRI use and success reveals that it is actually rarely used and defendants are more likely to be unsuccessful in their NGRI pleas than successful. Data across multiple jurisdictions reveals that the NGRI plea is raised in only approximately 1% of all felony criminal cases, and that only about 1/4 of that 1% are successful with their plea (Silver, Cirincione, & Steadman, 1994). Research within some jurisdictions report even more conservative success rates. For example, the same study examined five counties in Ohio and found that the insanity plea was raised in 1.36% of cases and successful in only 15.3% of those (Silver, Cirincione, & Steadman, 1994). Additionally, a study conducted in Baltimore, MD found that the insanity plea was raised in 1.2% of cases with only a 10% success rate (Janofsky, Vandewalle, & Rappeport, 1989). More recently, a study in Canada found a criminal non-responsibility plea (as a result of mental illness) rate of 0.113% with a success rate of 0.03% (Gulayets, 2016). A recent examination of legal

insanity in the state of Virginia notes that “The percentage of criminal cases in which the insanity defense is used is harder to track, but it does appear that it is close (pp. 13)” to the data found by Silver, Cirincione, and Steadman (1994), which may speak to the lack of variation in these findings since that time. It is worth noting that rates of success can vary by jurisdiction and the test of insanity being applied; however, updated and comprehensive research that reaches across multiple jurisdictions is lacking in this area.

Another common myth of the NGRI plea relates to the amount of time an acquittee will spend in confinement. It is generally believed that NGRI acquittees are quickly released from custody and spend less time in confinement than they would have if they were convicted of that crime (Perlin, 2017); however, NGRI acquittees are often held in custody for up to double the amount of time as those convicted of the same crimes with similar demographic information (Harris, Rice, & Cormier, 1991; Rodriguez, Lewinn, Perlin, 1983). More recent documentation of NGRI acquittee’s length of stay has been seen in the state of New York, in which researchers noted a decline from 40% in the 1980s to 8% in the 2000s of NGRI acquittees being released within seven years from their admission (Miraglia & Hall, 2011).

A third legal insanity misperception is that the use of the insanity defense is limited to murder cases. Research has found that NGRI is raised in only a fraction of homicide cases, and that people who raise the NGRI plea in homicide cases do not have a greater success rate than non-homicide cases (Dirks-Linhorst & Kondrat, 2012). A Missouri study found that only 13.3 percent of NGRI acquittees were charged with murder (Dirks-Linhorst & Kondrat, 2012). In the state of Oregon, the insanity defense is

strategically used to divert mentally ill misdemeanants from the criminal justice system to civil commitment (Schaefer & Bloom, 2005).

The last major misperception surrounding legal insanity is connected to secondary gain and escaping punishment. This usually involves the assumption that the legal system is incapable, or has great difficulty in, distinguishing the truly mentally ill from cunning and deceptive criminals who are using the insanity defense as a “loophole” to avoid punishment. Several data points contradict this myth, and the use of sophisticated, standardized testing, comprehensive training, and thorough evaluations has made mental illness very difficult to “fake” or malingering, especially to the degree that would qualify a defendant for a NGRI acquittal. First, at least 15% of insanity acquittees never actively raised a NGRI plea, but were acquitted anyway by a judge or jury (Callahan, et al., 1991). This data directly opposes the assumption that NGRI is a cunning loophole for which criminals are attempting to escape punishment because the defendant was given the verdict and did not seek it out purposefully.

Next, common characteristics held by NGRI acquittees would prove very difficult to fabricate, such as diagnoses and psychiatric histories. The majority of individuals who raise the NGRI defense have well-established histories with severe mental illness and at least one hospitalization. Demographic data obtained from this study revealed that most NGRI acquittees experienced serious mental illness, with 55% of individuals pleading NGRI (and 84% of those acquitted) having diagnoses of schizophrenia or other major illnesses (Callahan, et al., 1991). Cochrane, Grisco, & Fredrick (2001) studied an inpatient forensic unit in Michigan and found that 44% of their NGRI acquittees had schizophrenia diagnoses. As the authors observe, these findings are unsurprising when

you consider the nature of psychotic disorders. Patients with disorganized, disturbed and/or intrusive thought disorders or perceptions will experience greater difficulty in appreciating their actions, working with others, and understanding moral (and legal) concepts.

The cause of these misperceptions has not been thoroughly studied; however, many researchers hypothesize that media representation plays a large role. Blau (1993) believed that the insanity defense is misunderstood as a result of the Barnum effect, which refers to the phenomenon in which unusual events stand out and are remembered well when compared to unremarkable events. The attention surrounding violent, unusual, and highly publicized cases of NGRI (such as John Hinckley, Jeffrey Dahmer, and John Wayne Gacy) contributes to the belief that the insanity defense is too often used, successful, and results in reduced sentencing. Similarly, in a historical overview of legal insanity and examination of two high-profile cases of unsuccessful NGRI pleas, Kachulis (2017) outlines that media reporting on insanity defenses are scarce, and when they do appear, they tend to contain sensationalized narratives and are likely to portray the defendants as dangerous and/or deserving of punishment. As the author points out, “There is simply not enough positive reporting to balance out the negative (pp. 364).” Selection of cases that media choose to report on may also be indicative of an issue with media reporting, as the cases they investigate tend to be around heinous, violent crimes that are representative of only a small portion of NGRI cases (Kachulis, 2017).

Janofsky et al. (1996) argued that the gap between myths and the realities of legal insanity is the result of a lack of central and systematically maintained data to balance the controversial cases that accumulate a lot of media attention. Because criminal acts

compromised of bizarre, heinous, and violent behaviors are more likely to be made into news outlets, this narrow public exposure to NGRI cases contributes to common misperceptions. Consistent with this line of reasoning, Harris, Rice, & Cormier (1991) hypothesized that skepticism around the NGRI verdict probably increases and decision-making becomes more conservative when highly publicized NGRI cases (particularly when it involves violence) are salient and in the media.

Finally, research also seems to indicate that another contributing factor to the misunderstanding of legal insanity may rest with a lack of knowledge and/or exposure to mental illness and its relationship to violent behavior (Daftary-Kapur, et al., 2011). Despite widespread mental illness destigmatization, the public generally still believes that individuals with mental illness are more likely to act violently towards others (Schumacher, Corrigan, & Dejong, 2003). As such, as knowledge about mental health becomes increasingly more available, one side effect may be that negative emotional reactions and stereotypes around mental illness may have also increased (Corrigan, Watson, & Ottati, 2003).

Public misperception, regardless of its cause, can have damaging implications. First, it can drive ill-informed policy decisions that stagnate or hinder change (Janofsky, 1996). Second, public policy (often driven by public perception) tends to reflect get-tough-on-crime initiatives and conservative values, which can negatively impact outcomes and decision-making (Dirks-Linhorst & Kondrat, 2012). Additionally, reluctance to accept the insanity defense also has moral implications in sentencing mentally ill offenders who are not acquitted NGRI to prison where they are unlikely to receive appropriate and comprehensive mental health treatment (Vitacco, et al., 2009).

Demystifying the processes, outcomes, and characteristics of legal insanity, coupled with having a systematic and centralized location for NGRI data could go a long way in a better understanding of the utility of legal insanity and engaged in informed decision-making.

Insanity Defense Attitudes – Revised (IDA-R) Scale

Studies of the insanity defense, over the course of several decades, have revealed patterns about public biases related to legal insanity. Additionally, research tends to show that favorable attitudes around the insanity defense is positively correlated with an increased number of NGRI verdicts (Lymburner & Roesch, 1999). Thus, attitudes around the insanity defense appear to be an important variable to assess among potential jurors. As a result, a specialized measure was developed with the purpose of measuring these attitudes and eliminating biased jurors (Skeem & Golding, 2001). The Insanity Defense Attitudes (IDA) scale was designed using prototype theory, which says that:

“Knowledge about any category is structured around and represented in memory by a prototype...which is defined by a set of abstract features commonly associated with members of a category that capture the category’s meaning” (Skeem & Golding, 2001, pp. 568).

This theory utilizes a matching process and as the number of similar features across objects increases, so does the likelihood that the object will be considered a member of the category (Skeem & Golding, 2001). Prototype theory is relevant in the criminal justice system and juror decision-making because categorization also occurs in relation to crime-type (Smith & Studebaker, 1996). Therefore, under this theory, jurors tasked with making a verdict will decide whether the criminal act(s) qualify the defendant

as a member of the crime category in which he or she is charged (Smith, 1991). Because the findings suggest that jurors are more likely to make assessments and form decisions based on a case's similarity with their crime prototype than with a case description, it became critical to examine juror prototypes surrounding legal insanity (Skeem & Golding, 2001). In other words, jurors may rely on their prototypes or categorizations of legal insanity and assess if can be generalized to the case they are examining. This dependence on prototypes to inform decision-making has serious implications when one considers the pervasive misperceptions surrounding legal insanity that could misinform prototypes. If a defendant's attributes do not fit the volitional and cognitive components of what a juror considers to represent someone who is criminally insane, they are less likely to acquit the defendant. Additionally, if jurors rely on prototypes to render judgments about any case, it is important to understand the matching process from which decision-making is influenced. In doing so, we can learn how to design methods that could soften negative attitudes in cases involving the insanity defense so that they are more in accord with the law or identify jurors with strong attitudes to exclude them from insanity cases (Louden & Skeem, 2007).

The IDA was later revised (Skeem, Louden, & Evans, 2004) to improve validity, discard unnecessary items, and increase predictive utility. Two key dimensions of insanity defense attitudes was subsequently discovered. The first, strict liability, represents "the extent to which venirepersons believe that (a) mental illness reduces one's capacity for rational decision-making and control, and (b) reduced capacity is relevant to the issue of criminal responsibility (pp.643)." Individuals scoring high on this scale believe NGRI acquittees are not being held responsible for their crimes and benefitting

(perhaps unfairly) from the verdict (Vitacco et al., 2009) The second dimension, injustice and danger, is related to the extent that the insanity defense is perceived by venirepersons to be misused, and acquittees potentially harmful to community safety (Skeem, Loudon, & Evans, 2004). The strict liability component is aligned with Hans' (1986) view of a secondary goal of punishment and retribution, regardless of mental defect.

The psychometric properties of the IDA-R have been demonstrated by the researchers responsible for its development (Skeem, Loudon, & Evans, 2004), and later replicated in a confirmatory factor analysis (Vitacco et al., 2009). However, Vitacco et al. (2009) also found that a high number of cross-loading items threatened discriminant and construct validities. As a result, Vitacco et al. (2009) found that two factors fit the data: strict liability and a new scale, unprofessional behavior and safety concern. This scale refers to the idea that professionals (psychologists, attorneys, etc.) will do everything possible to help defendants escape punishment (Vitacco, et al., 2009). A relative strength of the IDA-R, however, is its ability to assess general attitudes surrounding the insanity defense (Bloechl et al., 2007; Vitacco et al., 2009). It is therefore an appropriate measure that has documented results (that these findings could be compared to) for examining potential biases.

Lastly, Peters and Lecci (2012) found that the strict liability scale of the IDA-R predicted participant's adherence to judge instructions concerning the insanity defense. In other words, high scores on this scale were indicative of a participant who was more likely to make a verdict decision strictly based on whether or not the defendant met criteria for an NGRI verdict. This has possible implications for juror selection because

jurors with high scores on the strict liability scale appear to be better equipped to make decisions less informed by attitudes concerning legal insanity.

Racial Differences

Racial biases and its impact on jury selection and decision-making have been thoroughly examined in the literature. Conversely, racial differences among the NGRI population has been neglected. Overall, African American defendants experience a great deal of disenfranchisement within the criminal justice and health systems. In addition to the impact of discriminatory laws that negatively affect urban communities, African Americans have been found to be over-policed and subsequently arrested at higher rates (Barbee, 2002; Chesney-Lind, 2002). Further, they are more likely to receive harsher, longer sentences (Leiber & Mack, 2003, Mitchell, 2005) and more likely to be sentenced to death (Baldus, Pulaski, & Woodworth, 1983). Within health systems (including mental health treatment), African American patients have higher rates of inpatient admissions and are overrepresented in inpatient programs (SAMHSA, 2010; Copeland & Butler, 2007). Additionally, that same SAMSHA (2010) report found African American patients are also more likely to be prescribed psychotropic medications and done so without consideration of diversity and medical context (such as metabolizing drugs in a different, potentially harmful way).

As previously mentioned, an examination of racial differences in cases of legal insanity is less studied thus far; however, higher rates of severe mental illness diagnoses seem to contribute to an overrepresentation of African Americans in the NGRI population (Linhorst, Hunsucker, & Parker, 1998). In a study conducted at a state forensic psychiatric facility in Kentucky, Perry, Meltner, and Allen (2013) found that African

Americans were disproportionately diagnosed with disorders that are highly stigmatized, such as psychosis. Additionally, African American defendants were more likely to be found non-criminally responsible, which the authors argue is a result of racial inequity and potential bias consistent with known inequalities in both the criminal justice and healthcare systems of America (such as higher arrest rates, barriers to treatment, less interaction with treatment provider, and harsher sentencing). Consistent findings were revealed in Missouri by Dirks-Linhorst (2013), who reported an overrepresentation of African American NGRI acquittees (29.2% compared to 11.5% of state population) and that African American NGRI acquittees were less likely to receive an unconditional release.

Several studies have found race to be a predictor variable for NGRI acquittal, recidivism, and even initial arrest. Grekin, Jemelka, and Trupin (1994) studied the criminalization of the mentally ill and found that, although arrest rates varied by jurisdiction, race was a salient factor in arrest rates. Specifically, counties with a large racial and ethnic minority populations sentenced more mentally ill members of the community to prison than commitments to state hospitals. While this study did not examine NGRI acquittees, overall the literature appears to be consistent with Poulson's (1990) findings that African American defendants are acquitted NGRI significantly more frequently than White men. Additionally, Baldwin, Menditto, Beck, and Smith, (1992) found that African American NGRI acquittees were generally confined for longer periods of time, and race was found to be a salient predictor variable for length of hospitalization. Lastly, Zonana et al. (1990) reported that the strongest predictor variable of recidivism among NGRI acquittees were race and having a non-psychosis spectrum disorder.

Juror Attitudes and Biases

Forensic psychologists have a long, well-documented history with the study of juries. Jury selection and decision-making was among some of the first research performed by psychologists in this field, creating a platform for psychological services in the legal arena (Weiner & Hess, 2006). Current literature on juries is much more intricate and complex. Forensic psychologists continue to examine matters related to jury selection and decision-making, but they are also involved in the influence of expert testimony, juror characteristics, death qualifications, and the influence of victim characteristics (Sommers, 2007). One popular line of jury research involves an examination of juror biases and the influence these may have on final verdicts.

Voir dire is a jury selection process that involves questioning potential jurors before they are impaneled. Often, the process of *voir dire* is used for jury selection because it is believed to be an effective method of selecting impartial, unbiased jurors (Dayan, Mahler, & Widenhouse Jr., 1989); however, criticism of *voir dire* includes that limitations placed on attorneys in the *voir dire* process render its bias-detecting capabilities as useless (Skeem, Loudon, & Evans, 2004). Additionally, attorneys are less likely to remove a biased juror if the bias in question helps their case or works in favor of the attorney (Skeem, Loudon, & Evans, 2004). The implication of these findings highlights the need for a more standardized process for detecting and neutralizing juror bias.

Strong motivation exists to select an impartial jury. Jurors are assumed to uphold the value that “justice is blind” and perform as blank slates from which no bias impacts decision-making (Skeem, Loudon, & Evans, 2004). However, research on attitudes and

biases that impact jury decision-making reveals that implicit biases exist that are difficult to control for. In a meta-analysis of juror bias, an examination of jury verdicts reveals that African American defendants are more likely to be found guilty than White defendants (especially when the jurors are White), implying some racial biases are at play (Mitchell, Haw, Pfeofer, & Meissner, 2005). Additionally, participant jurors were found to award longer sentences for defendants who were of another race, which indicated that both verdict and sentencing decisions were impacted by bias (Mitchell, Haw, Pfeofer, & Meissner, 2005).

Several attempts have been documented in the literature to mitigate juror bias. One well cited model is the race salience model (Sommers & Ellsworth, 2009). The race salience model is based on research that found White jurors racial biases were decreased when race was a salient issue that was mentioned throughout the trial (Sommers, 2007). The race salience model is also supported by theories of aversive racism (Dovidio & Gaertner, 2000), which suggests that jurors are more cognizant of how their verdicts could appear racist and avoid challenging societal norms about prejudice (Cohn, Bucolo, Pride, & Sommers, 2009). Thus, because jurors are made aware of the diversity variables at play, they may respond differently in race-salient conditions (Cohn, Bucolo, Pride, & Sommers, 2009).

Juror experience and exposure to and acceptance of mental health issues may also play a salient role in the decision-making of jurors. Studies have found that personal contact with mental illness (personal diagnosis or close proximity to a mentally ill individual) and general knowledge around mental illness is linked to general attitudes around mental illness and juror decision-making (Addison & Thorpe, 2004). Specifically,

more accurate knowledge about mental illness leads to more favorable attitudes about individuals who have mental illness (Addison & Thorpe, 2004). In an examination of how juror verdicts are affected by insanity defense attitudes, Butler (2006) found that venirepersons were likely to have increased support for NGRI verdicts when they held more positive attitudes around mental illness. Additionally, the same study found that participants with jury experience on a criminal trial were more likely to find the defendant NGRI, while participants from civil trial jury experience were more likely to find the defendant guilty. This study would suggest that salience to mental health issues and previous juror experience may also impact decision-making in NGRI cases.

Chapter III

Methodology

This study aimed to explore the attitudes that a Midwestern community holds regarding legal insanity, in addition to potential racial biases that may impact decision making in these cases. The study used a cross-sectional survey design to examine the relationship between juror bias and verdict decisions in cases of legal insanity. Following is a description of the participants, instrumentation, procedures, research design, and data analysis of the present study.

Participants

Participants were recruited from a Midwestern community. Jury participation in this Midwestern county required the person be a U.S. citizen and a resident of the county, over the age of 18 (and an option to be excluded at the age of 76 or over), and without a felony conviction. Participants selected for this study therefore included individuals who self-reported no felonious convictions, were 18-76 years old, and legal residents of the county with US citizenship. Participants were not excluded based on race or gender but needed a high school reading level in order to interact with the instruments involved. The case vignette provided to participants was estimated by Microsoft Word to require a 12.2 grade reading level to comprehend. Ideally, materials would use a 6th grade reading level; however, the validated and standardized IDA-R measure requires a 10th grade reading level and could not be altered. Therefore, participants who did not earn a high school diploma or General Education Development/Diploma (GED) were excluded.

Attempts were made to select participants representative of the community and consistent with the individuals who comprise a jury in regard to diversity variables. The selected Midwestern community was comprised of 140,489 citizens. The makeup of this community was as follows: 59% were age 18-65, 12.5% were age 65 and over, 54.9% identified as White, 39.8% identified as African American, 3.9% identified as Hispanic or Latino, and 1.1% identified as Asian American (U.S. Census Bureau, 2016). Additionally, at least 83.1% of this community's population earned a high school diploma (or GED) or higher (U.S. Census Bureau, 2016).

A relative strength of this study was that 211 participants were recruited. Of those recruited, 159 participants were included in the data analysis. The remaining 52 participants were excluded on the basis of education (N=11), felony convictions (N=23), random/inconsistent responding (N=14), citizenship (N=3), and gender identity (N=1). Exclusion in data analysis was determined based on the self-report of participants on the demographic questionnaire. No information provided was verified. Specifically, of those excluded on the basis of a felony conviction, all participants had responded with "yes" to an item that asked if they had been convicted of a felony.

Of the participants included in data analysis, 103 were female (64.78%) and 56 were male (35.22%). Ethnicity groups represented included Caucasian (N=125, 78.62%), African American (N=19, 11.95%), and other minority group (N=15, 9.43%) individuals. Of the 159 participants, 47 held a high school diploma or GED equivalent (29.56%), 56 held an undergraduate degree (35.22%), and the remaining 56 held a degree beyond the undergraduate level (35.22%).

With regard to exposure to poor mental health, 107 participants (67.30%) acknowledged either a personal mental illness, or a mental illness for someone that they consider themselves to be close to, or both. Conversely, 52 participants (32.70%) denied experience both with a personal mental illness and mental illness for individuals they are close to. A majority of participants (89.94%) lacked experience serving on a jury, although many of those participants reported being called for jury duty previously. Only 16 participants (10.06%) reported experience serving on a jury, and only 1 participant had experience as a jury member in a criminal case involving a plea of Not Guilty by Reason of Insanity (NGRI). Additional information regarding the demographics of the sample is included in Table 1 below.

Table 1

Demographic Variables of Participants

Variables	Frequency	Percentage
Age		
18-30	55	34.6
31-40	70	44.0
41-50	15	9.4
51-60	11	6.9
61+	8	5.0
Gender		
Male	56	35.0
Female	103	64.4
Race/Ethnicity		
African American/Black/African Origin	19	11.9
Asian American/Asian Origin/Pacific Islander	3	1.9
Hispanic/Latino/a/x	4	2.5
American Indian/Alaska Native	0	0
European Origin/Caucasian/White	125	78.1
Bi-Racial/Multi-Racial	2	1.3
Other	6	3.8
Education		
High School Diploma	34	21.3
GED	13	8.1
Undergraduate Degree	56	35.0
Professional Degree	15	9.4
Master's Degree	32	20.1
Doctoral Degree	9	5.7
Mental Illness Experience		
Personal Mental Illness	61	38.4
Mental Illness to Friend/Family	103	64.8
Jury Duty Experience		
Called for Jury Duty	90	56.3
Served on a Jury	16	10.0
Civil Case Jury Experience	7	4.4
Criminal Case Jury Experience	9	5.6
NGRI Jury Experience	1	0.6
Foreperson Jury Experience	1	0.6

Note. N = 159.

Instrumentation

A total of five instruments were used in the present study: a cover letter, demographic questionnaire, case vignette, post-vignette survey, and the IDA-R. Additionally, a sign-up sheet was used to document participants who opted-in to the gift card drawing. All materials utilized in this study are posted in the Appendix.

The Cover Letter (Appendix A) served as documentation of participation in the survey, as well as provided information about the study and researcher contact information. No administration time was needed, but participants were encouraged to retain this document in the event they had questions later.

The Demographic Questionnaire (Appendix B) was used to gather basic, non-identifying information about participants to later account for variance in the findings. It was comprised of 12 questions and addressed items related to gender, education, mental illness exposure, and jury experience, such as “have you been called for jury duty before?” The estimated time to complete this instrument was 1-3 minutes.

A vignette portraying a case of legal insanity was then distributed and served as a stimulus on which to base the remaining materials. The vignette (Appendix C) was a brief, one-page summary of a male defendant charged with the murder of a local construction worker. It was created using a combination of case studies and other NGRI vignettes as a reference in order to represent a unique and plausible case of legal insanity. This instrument also determined which group participants would be randomly assigned, as the race of the defendant in the vignette randomly alternated between Caucasian and African American. All other details of the case were the same between groups. Additionally, the vignette contained information regarding the criteria to be acquitted

NGRI, as jurors would receive this information in cases of legally insanity. Further, research supports that more information on legal concepts and verdict criteria leads to better comprehension and sound decision-making among jurors (Baguley, McKimmie, & Masser, 2017). Jury instructions are a common way to assist juries in forming legally correct verdicts and are said to reduce the likelihood of reliance on irrelevant information or biases (Baguley, McKimmie, & Masser, 2017). The estimated reading time for the case vignette was 2-4 minutes.

The Post-Vignette Survey (Appendix D) consisted of four items and provided a space for participants to document their final verdict of the case they were assigned. Additionally, two items assessed the participant's perception of the rate of use and success of the insanity defense. In these items, the participant identified the percentage range that best reflected their ideas of how often the insanity defense is raised and of how often individuals are acquitted NGRI. The estimated time to complete this survey was 1-2 minutes.

Lastly, the Insanity Defense Attitude – Revised (IDA-R) scale created by Skeem, Loudon, and Evans (2004) was used to gather information about participants' attitudes surrounding legal insanity. The IDA-R scale (Appendix E) is comprised of 22-items (three of which are optional and not included in the scales). It was normed on 178 venirepersons for both criminal and civil cases (Skeem, Loudon, & Evans, 2004). The average age of the normative sample was 46-years-old, the average educational level was 15 years, and 56% of the sample were female (Skeem, Loudon, & Evans, 2004). One limitation of this measure is its lack of diversity in the normative sample. Skeem, Loudon, and Evans (2004) reported that the majority (95%) of the population that the

IDA-R was normed on was White. The other 5% was comprised of individuals who identified as Hispanic, East Indian, or Asian. African Americans were not included in the normative sample for this instrument.

In regard to psychometric properties, the IDA-R has established good internal consistency, convergent and divergent validity, and predictive utility. The IDA-R has some association ($r=.67$ and $r= -.75$ for each scale) with the Insanity Defense Support (IDS) scale (Hans, 1986) from which it was developed (Skeem, Louden, & Evans, 2004). However, the IDA-R has a stronger relationship to measures of the same construct than measures of similar, but different constructs (Skeem, Louden, & Evans, 2004). These scales are similar in their assessment of expert's ethics in regard to the insanity defense but differ in that the IDS scale also assesses the extent to which NGRI acquittees are entitled to treatment (Skeem, Louden, & Evans, 2004). Additionally, the predictive utility has been found to be generalizable across jurisdictions and case facts (Skeem, Louden, & Evans, 2004) and the IDA-R appears to account for at least 25% of the variance in juror decision making, with the additional variance likely being derived from the evidence presented in a trial (Peters & Lecci, 2012). Researchers have assessed the IDA-R's ability to predict verdicts and found that the strict liability scale and total score were strongly associated with venireperson judgments and that the injustice and danger scale was moderately so (Skeem, Louden, & Evans, 2004).

As previously stated, the IDA-R consists of 22 total items (3 of these are optional and do not contribute to the total score) and deals with two distinct factors: strict liability, and injustice and danger (Skeem, Louden, & Evans, 2004). The internal consistency of these scales has been described as fair to good, with a strict liability scale of $\alpha = .68$ and

an injustice and danger scale of $\alpha = .88$ (Skeem, Louden, & Evans, 2004). These examine the extent to which a juror believes that mental illness can reduce capacity for rational decision-making and the degree to which a juror believes that the insanity defense is misused or poses a threat to public safety, respectively (Skeem, Louden, & Evans, 2004). Items from the IDA-R are fairly face valid. Items such as “The insanity defense threatens public safety by telling criminals that they can get away with a crime if they come up with a good story about why they did it” are measured on a 7-point Likert scale and summed up to reveal a low or high endorsement of negative insanity defense attitudes. Estimated time to complete this measure was 3-5 minutes. Therefore, the entire administration time was between 7 and 14 minutes.

The format of the materials varied based on the way a participant was recruited. Individuals recruited from public canvassing were provided with self-administered paper materials. Individuals responding to online advertisements were provided with a confidential web survey that was identical in content to the paper materials. The online survey was created on the Google Forms platform, with privacy settings restricted so that only individuals with links could access the survey. Google Forms is stored on a secure network and all data is encrypted so that only the creator can access it.

Procedures

After approval was secured from the Institutional Review Board the study commenced in selected jurisdictions. Initially, recruitment was sought through local municipal courts in order to secure actual vetted jurors as participants, but ultimately a partnership was unsuccessful. The recruitment plan therefore shifted to public recruitment, targeting potential jurors of the community.

Public recruitment involved canvassing by the primary researcher online and in public areas in the community and requesting participation. Both paper and electronic surveys were made available in order to broaden the accessibility of this study to citizens of this county. Recruitment of participants included advertisements in local court houses, school community boards, child care facilities, and online community forums such as Reddit, Facebook groups, Craigslist, and NextDoor. Participants recruited from public areas and community events were given paper data packets to fill out, while online respondents were sent a link to complete the survey. Web surveys and paper surveys contained identical content. Online participants were asked to demonstrate that they understood the purpose of the study and their ability to withdraw by replying with “I understand” to information from the Cover Letter (Appendix A). This information was provided verbally to face-to-face participants. Additionally, participants receiving the web survey were also asked to confirm that they were residents of the county in which the study took place. Participants recruited from the site NextDoor, a neighborhood-based social network, were not asked for residency confirmation because this is a requirement for making an account with the site. Participation was monitored on the online poll to ensure that the link was not being shared to individuals who had not been vetted by the researcher (as indicated by the number of participant responses). Participants were also asked not to share the link provided.

Regardless of mode used (paper or web), the participant was informed about the study and its purpose before offered to participate. After expressing willingness to participate in the study, they were asked to indicate their preference for entering the gift card drawing or not. If they wanted to be included in the drawing, participant names and

phone numbers (or email addresses) were written on a sign-up sheet so that a prize may be claimed if they won a gift card (Appendix F). Participants opting to sign up for the drawing each received the chance to win one of six \$15, \$25, or \$50 Visa gift cards as a result of their participation. Participant eligibility in the drawing was maintained even if they withdrew from the study or their data was excluded. This sign-up sheet was locked in a lockbox within a locked office and limited to the principal researcher. Ultimately, six winners were chosen and contacted via phone or social media of their status. After all gift cards were received by the winners, the gift card sign-up sheet was destroyed. This step was optional and individuals were eligible to participate in the study without entering the drawing. Identifying information of the participant could not be linked to other materials and there were no means of identifying responses as belonging to a particular person.

This process was administered by the researcher and the standardized instructions were delivered verbally or via online text with materials provided. A public community room at the local library was available to offer a quiet space with limited distractions for the participants to complete the provided materials, but was seldom used. Participants were informed that the data collected was to be used only for research purposes, and identifying information was not to be on any of the survey materials to ensure confidentiality. Each participant was provided a Cover Letter (Appendix A) that explained the study's purpose and provided contact information of the primary researcher should questions later arise.

This study was limited to jury-eligible citizens of the state in which it is being conducted, and therefore individuals not meeting the standards of jury eligibility, as determined by responses on the Demographic Questionnaire (Appendix B), were not

included in data analysis. Additional identifiers such as gender, jury experience, and exposure to mental illness were included in the questionnaire in order to assess how the variance of these variables may impact in decision-making. The goal was to control for factors, except for race, to limit the potential for confounding variables that impact interpretation.

Next, participants read a Case Vignette (Appendix C) of an offender seeking a NGRI verdict. The vignette was identical for both groups, with one exception. One group randomly received a vignette of a White defendant and the other group received a vignette of an African American defendant of the same gender. Random assignment into groups was automatic through the online format, which provided options to adjust which section a participant could view based on when they accessed the survey. Participants receiving the paper format were randomly assigned by ordering the packets to alternate vignettes upon distribution.

After reading the vignette, participants completed a Post-Vignette Survey (Appendix D), in which they rendered a verdict (not guilty, guilty, or NGRI). They were also asked to draw conclusions about how often the NGRI defense is used and successful. Lastly, the participant completed an Insanity Defense Attitudes – Revised (IDA-R) scale (Appendix E), which assessed perspectives on the use of NGRI. This information (the Post-Vignette survey and IDA-R data) were analyzed using a standard logistic regression and multiple linear regression determine significance between groups. The Post-Vignette survey and IDA-R data were evaluated independently from one another for significance.

When the data collection phase was complete, public canvassing ceased and the settings on Google Forms were adjusted to no longer accept new responses. It should also

be noted that no identifying information was collected from Google Forms and an account or registration through Google was not required to participate. Raw survey materials will be kept in a lockbox for one year from the date that data collection began and then destroyed. Raw responses housed on Google Forms will also be deleted at that time.

Research Design

This study explored venireperson racial biases in cases of legal insanity in addition to attitudes currently held in relation to NGRI. To this end, a survey design was utilized for its ability to develop “quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2014). The nature of this study is cross-sectional. That is, it studied potential juror attitudes at a particular moment in time and will not collect additional or follow-up data at another point in time (longitudinal). Survey designs are observational in nature and do not interfere or intervene with the participants (Tirres, 2016). This process makes survey design a strong fit for this study, as no interventions occurred. While the race of the defendant presented in the vignette differed for one group of participants, this study did nothing to impact existing attitudes and biases.

Survey designs are also well-suited for the process of standardization (Tirres, 2016). Because this study utilized a validated and reliable survey that has previously been standardized, results from this study can easily and effectively be compared to previous studies using the same measure. By engaging in a survey design, this study has the ability to determine if findings are consistent or deviate from previous findings using this measure.

Additionally, this study utilized a mixed-, uni(fied)-mode for survey administration. Mixed-mode surveys, by which two or more forms of administration are used, reflect a methodology that is appealing because it takes advantage of strengths and compensates for weaknesses of each mode used in data collection. Mixed-mode designs can be implemented to initiate or recruit participants and/or for data collection (de Leeuw, Hox, & Dillman, 2008). This study used mixed-mode design for both recruitment (online and paper advertisements, face-to-face recruitment) and data collection (in-person paper administration and online surveys). The design can also be described as uni-mode, because both formats used the same questions, in the same layout in both modes (de Leeuw, 2005) Uni-mode designs minimize mode effects and make administration more standardized, but at the risk of not using one mode to its full potential (de Leeuw, 2005).

Researchers have elected to pursue mixed-mode designs since the early 1960s (Couper, 2011) and many benefits result in employing this method. First, single mode paradigms have been criticized for its limitations and assumption that one method works equally well for all participants (de Leeuw, & Berzelak, 2016). Second, mixed-mode designs can, at least in part, address the drawbacks of various methods of participation. For example, face-to-face administration and in-person interviewing is often regarded as the most desirable format (de Leeuw, Hox, & Dillman, 2008); however, a steady decrease in willingness to participate using this method has been observed (de Leeuw, & de Heer, 2002), and it creates a huge investment in time, personnel (if multiple researchers and assistants are used), and costs (de Leeuw, & Berzelak, 2016). On the other hand, a well-designed mixed-mode survey allows researchers to wisely allocate funds and offers flexibility and reduced nonresponse and coverage errors, as well as more rapid data

collection (de Leeuw, & Berzelak, 2016). One of the most emphasized benefits of a mixed-mode design appears to be related to “reduce[d] total survey error within the available time and budget,” (de Leeuw, 2005, pp. 235). Specifically, a mixed-mode has been lauded for its ability to reduce biases rendered by poor coverage and problems associated with access or representation. Because multiple methods are being employed, researchers are better able to recruit a sample representative of the population because individuals who could not be included otherwise are given a chance to participate, particularly when utilizing samples of non-students (O’Neil & Penrod, 2001). Lastly, mixed-mode designs are praised for addressing a problem with nonresponse errors.

“Declining response rates...have encouraged researchers to use multiple modes of data collection during the administration of a single cross-sectional survey.”

(Dillman & Christian, 2005, pp.31)

Utilizing multiple modes has shown a production of higher response rates (Dillman, 2002), and it has been posited that offering multiple methods to participants may also increase positive survey-taking attitudes and goodwill (de Leeuw, Hox, & Dillman, 2008). While some studies have found no difference in response rates between paper or web surveys (Lozar Manfreda, et al., 2001), it appears to be universally accepted that using multiple methods allows researchers to reach more participants, which in turn can serve to increase participation.

Mixed-modes, like single paradigm surveys, is not without drawbacks. The most significant concern is the potential impact on the data that is collected across different methods. Two types of inherent mode effects have been identified: a shift in distribution and changes in the question and answer process (Hox, de Leeuw, & Zijlmans, 2015). The

former is related to a change in mean or variance as a result of different modes, but not a change in correlations (Hox, de Leeuw, & Zijlmans, 2015). Changes in the question and answer process, however, can be related to different wording across formats or inherent differences in the visual presentation across modes, such as different colors, formats, graphic designs, etc. (Hox, de Leeuw, & Zijlmans, 2015). The change in process can implicitly produce measurements that are inequivalent between modes.

Some differences between modes have been closely examined. Dillman and Christian (2005) have noted several order and context concerns related to mixed-mode designs, including social desirability effect, acquiescence, and recency/primary effects. Specifically, they observed that some questions are more susceptible to instability across modes, in part because participants are actively trying to make sense of questions by drawing on context and information provided by the researcher. For example, answers obtained utilizing a face-to-face interview are more susceptible to a social desirability effect, as participants are more incentivized to provide responses that meet perceived cultural expectations. Dillman and Christian (2005) go on to note that writing questions in a manner that “will work satisfactorily across different modes, (pp.42)” or uni-mode design is the most promising solution to mitigating errors inherent in utilizing multiple methods of data collection. The presence or absence of a researcher, however, appears to have the most impact in differences, as participants are more likely to engage in socially desirable responding and acquiescence (or the tendency to agree) when a facilitator is present.

The primary justification for the concern of errors related to researcher presence is related to communication. Specifically, verbal and nonverbal cues to participants that can

give additional meaning to the questions may influence interpretation of questions. For this study, these effects may have been mitigated (at least in part) by the researcher's disengagement in face-to-face recruitment. Namely, once the study was explained by the researcher and the paper packet distributed, the research left the participant to self-administer the materials provided, which were also anonymous, thereby potentially decreasing social desirability effects. If clarifying questions about the vignette were asked, the researcher would respond that they could not aid them and to "try [their] best," in order to standardize the process. Additionally, research on social desirability effect across various modes of survey administration did not find significant differences between participants who completed a paper survey than those who completed a web survey (Hancock & Flowers, 2001). This finding would support that a uni-mode survey across these two formats specifically should produce similar outcomes without much impact from this particular bias.

Overall, mixed-mode survey designs have been found highly reliable. The most impact on data collection can occur when mixed-mode designs are used to survey different populations, within longitudinal surveys, and when questions are modified to fit the new mode (de Leeuw, Hox, & Dillman, 2008), none of which apply to the present study. A recent meta-analysis that examined the consistency of data collected from a health survey containing sensitive information across electronic and paper modes of administration found that the data obtained was equivalent across the two versions, despite using a conservative threshold to determine agreement between modes (White, Maher, Rizio, & Bjorner, 2018) Thus, it appears that uni-mode surveys utilizing paper-

and web-based administration should not have a significant impact on participant responses.

Data Analysis

A statistical power analysis revealed that a total sample size of 128 participants was required to determine if the significant results of this sample can be generalized to the population. After data collection was completed, statistical analysis was performed in order to determine patterns and significance ($\alpha = 0.05$) among different variables. Specifically, the demographic questionnaire, which asks about age, citizenship, criminal history, and education was used to determine a participant's eligibility to participate in a jury and to be selected for this study. Individuals who are ineligible to sit on a jury (based on age, criminal history, and citizenship) in this jurisdiction were excluded from the data analysis. Individuals without a high school diploma or GED were also excluded, due to the reading level of the material, in order to ensure that the material was comprehended.

The questionnaire also asked about previous experience with jury duty, such as the type of case (criminal, civil, or both), the role that jury member had, and if the case involved a question of insanity. This data was used to rule out differences that might occur due to juror experience. Additionally, to determine if there are significant ($\alpha = 0.05$) differences in respondents who have a mental health history (or are familiar with the impact of mental illness by proxy), the questionnaire also asked if the respondent (or someone close to him or her) has a psychological diagnosis.

The variables of race, gender, education, jury experience, and psychiatric diagnosis, were tested for homogeneity of variances to ensure that findings are largely impacted by the independent variable (race of defendant in the case vignette) and not

these variables. Lastly, a one sample t-test was used on the two survey questions related to the use and success of the insanity defense in order to compare these findings to the national estimated average as found by Silver, Cirincione, and Steadman (1994). This analysis expressed which percentage group was most commonly endorsed as it related to the beliefs around the rates of NGRI use and acquittals.

Participant's final verdict decision was located on the Post-Vignette Survey. This verdict item was used in a standard logistic regression comparing only Guilty and NGRI verdicts, while two scale scores from the IDA-R were used in a multinomial logistic regression to examine significant ($\alpha = 0.05$) differences between the two groups.

Chapter IV

Results

This study was conducted to examine implicit racial biases that might impact juror decision-making, particularly as it relates to cases of legal insanity. Additionally, it sought to understand attitudes related to the insanity defense by the public of this Midwestern community. The following chapter addresses the research findings, including additional data not highlighted in the research questions.

Analyses were conducted using SAS version 9.4 (SAS Institute, Inc., Cary, NC) and with assistance from a university statistical counseling center. Significance was valued at the 95% confidence level. All variables were assessed for significant differences and covariance, and Pearson correlations were computed to determine the strength and direction of relationships. The predictive power of some variables was assessed by utilizing regression analyses.

Findings

A total of 84 participants (52.83%) were randomly assigned to the vignette portraying an African American defendant, and the remaining 75 participants (47.17%) read the vignette featuring the Caucasian defendant. In total, without consideration of the vignette assignment, more participants assigned a final verdict of Not Guilty by Reason of Insanity (NGRI) than the other two options provided. Final verdicts given by the participants can be found in Table 2 below.

Table 2

Final Verdicts

Final Verdict	Frequency	Percentage
Not Guilty	9	5.66
Guilty	66	41.51
Not Guilty by Reason of Insanity	84	52.83

Note. N=159.

Several demographic variables were analyzed in conjunction with the final verdict in order to determine if any correlation existed. Multinomial logistic regression was attempted for this process; however, it could not be used due to a phenomenon known as quasi-complete separation, rendering the results unreliable. Quasi-complete separation occurs when one factor can completely (100%) predict the outcome. This result was most likely the result of the Not Guilty verdict option, which no African American participants selected. Therefore, it appeared initially that race could perfectly predict verdict responses, which is not the case. To correct this issue, the Not Guilty option (N=9) was removed from analysis and a standard logistic regression was utilized with response variables that included only Guilty and Not Guilty by Reason of Insanity. Independent variables included the age, gender, ethnicity, education level, mental illness exposure, and prior jury experience of the participants. Interactions could not be assessed due to underrepresentation of some factor level combinations; therefore, each variable was analyzed independently. However, this process assumes that significant differences in

one variable are constant across all levels of other variables. Likewise, it is possible that a significant interaction of variables exists that were not found significant on their own.

Overall, only the variable of race was found to have a clinically significant relationship with final verdict (chi-square(2)=6.97, p-value=0.0306). The race of the potential juror appeared to be related to his or her conclusion that the defendant was either guilty or NGRI. A table of this analysis is provided below.

Table 3

Analysis of Effects

Effect	DF	Wald Chi-Square	p-value
Age	1	0.3825	0.5363
Race	2	7.3842	0.0249
Education	2	3.7808	0.1510
Gender	1	2.8072	0.0938
Mental Illness Exposure	1	0.6424	0.4229
Jury Experience	1	0.6625	0.4157
Vignette Case Assignment	1	3.3391	0.0676

Participants were also asked to provide their individual level of confidence in the verdict that they provided on a scale of 1-10 (with 10 being the most confident). The mean response did not vary significantly (p=0.05) regardless of final verdict, and the overall modal response was “8.” Each group mean is provided in Table 4 below.

Table 4

Verdict Confidence Grouped by Final Verdict Rendered

Final Verdict	N	Verdict Confidence Mean
Not Guilty	9	6.11
Guilty	66	6.83
Not Guilty by Reason of Insanity	84	6.67
Total	159	6.7

Research Question One. Will potential jurors overestimate the percentage of criminal cases in which the insanity defense is raised when compared to the national rates reported by Silver, Cirincione, & Steadman (1994) based on the Post-Vignette Survey?

According to Silver, Cirincione, and Steadman (1994), the national rate of insanity defense pleas falls just short of 1% (0.9%) of all criminal cases. Participants were provided forced choice options with a range of percentage points, including the correct estimate (0-1%). Any selections that were above this option were considered overestimations of insanity plea use.

In order to examine this research question, a one-sample t-test was run with the alternative hypothesis that the mean response would be greater than 1. The mean response to this question item was 3.75, which corresponded with range 5-10%. Therefore, there is strong evidence to suggest that the rate of insanity plea utilization continues to be overestimated by the general public ($M=3.75$, $SD=2.17$, $t(158)=15.99$, p -value <0.0001). These results are displayed in Figure 1 below.

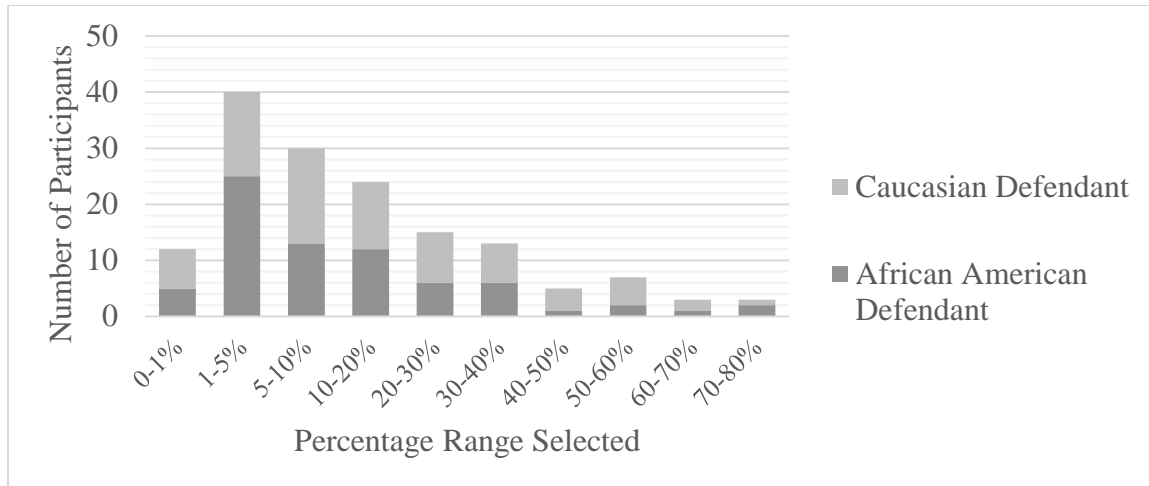


Figure 1. Estimation of frequency of NGRI plea usage.

Research Question Two. Will potential jurors overestimate the percentage of NGRI cases in which the insanity defense is successful when compared to the national rates reported by Silver, Cirincione, & Steadman (1994) based on the Post-Vignette Survey?

Participants were asked to estimate the number of NGRI criminal case acquittals using forced choice percentage ranges. The same survey by Silver, Cirincione, and Steadman (1994) estimated the national average of NGRI acquittals to be around 26%, which corresponded with the item 20-30%.

To examine this research question, another one-sample t-test was utilized to test the hypothesis that the mean response was greater than 5 (the question item number that corresponded to the published national average). Based on the results of this test, the sample mean fell at 2.84, which corresponded with item reflecting a percentage range of 1-5%. This suggests, therefore, that participants severely underestimated the rate of NGRI acquittals ($M=2.84$, $SD=2.02$, $t(158)= -13.44$, $p\text{-value}=0.99$). Participant responses to this question item are displayed in Figure 2 below.

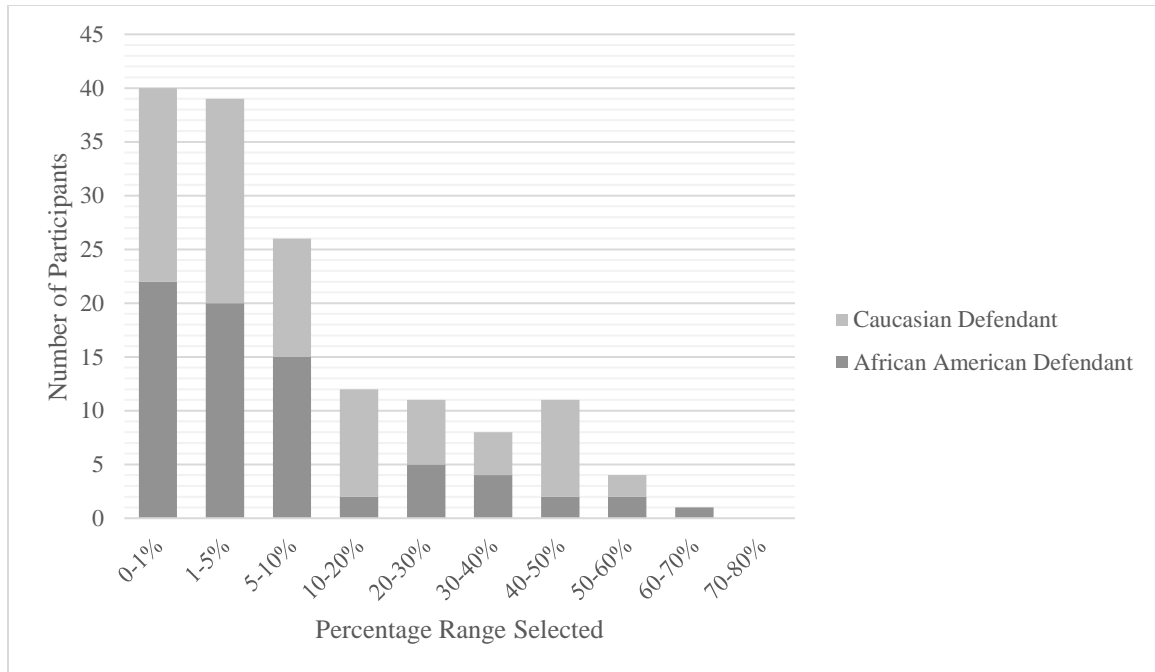


Figure 2. Estimation of NGRI acquittals.

Research Question Three. Will there be a significant difference ($\alpha = 0.05$) on the Post-Vignette Survey in the verdicts given on cases when the defendant is African American when compared to a White defendant?

Additionally, participant variables, as provided by information on the Demographic Questionnaire (Appendix B) were also assessed for significance in verdict decision-making. To this end, logistic regression was run with the final verdicts provided by participants to assess for significant differences as a result of the randomly assigned vignette. Based on these results, only the race of the potential juror was clinically significant. Race of the defendant provided in the randomly assigned case vignette fell just outside of significance ($p = 0.0676$), indicating possible significance if the sample size had been more substantial.

Race of the participant, specifically one racial group, was a significant predictor of the final verdict rendered. No significant relationship was found when comparing

verdict assignments of African American and Caucasian participants. However, a strong statistically significant odds ratio was present for other minority groups when compared to Caucasian respondents. Due to the underrepresentation of some ethnicities, participants were grouped together as being Caucasian, African American, or Other Minority Group, which was comprised of Asian American, Latino/a/x, American Indian, and Bi-/Multi-Racial respondents. Odds ratio determined that this group (Other Minorities) would determine a defendant was NGRI 0.152 times the odds of Caucasian potential jurors. In other words, members of other minority groups were 85% less likely to deem either defendant (Caucasian or African American) as NGRI than Caucasian potential jurors. These results are illustrated in the tables below.

Table 5

Odds Ratios for Significant Variables

Effect	Point Estimate	95% Wald Confidence Limits	
Race: African American vs Caucasian	0.572	0.167	1.967
Race: Other vs Caucasian	0.152	0.037	0.621

Table 6

Frequency of Final Verdict by Race of Potential Juror and Race of Defendant

Final Verdict	Caucasian	African American	Other Minority	Total
Guilty	43 (36.75%)	12 (63.16%)	11 (78.57%)	66
NGRI	74 (63.25%)	7 (36.84%)	3 (21.43%)	84
Total	117	19	14	150 ^a

^aThe total number reflects the nine participants who selected a Not Guilty verdict and were excluded.

Research Question Four. Will there be a significant difference in the individual item scores of the Insanity Attitudes – Revised (IDA-R) scale when participants respond to a vignette of an African American defendant ($\alpha = 0.05$)?

After consultation with a statistician, this question was restructured prior to data analysis due to its repetitive nature. Initially, individual item scores were to be individually analyzed for both groups independently. However, because the IDA-R scales capture these differences more effectively (and one of the scale scores captures all items), the original research question five was divided into two separate questions. The purpose of this research question was to capture how the two groups might present with different attitudes regarding insanity based on their assigned vignette, and that goal was more accurately achieved by utilizing the scale scores, which encapsulate a participant's attitude and biases in a manner that has already been validated by previous research (Skeem, Loudon, & Evans, 2004; Vitacco et al., 2009).

Demographic variables of the participants were also included in this analysis in order to assess for differences attributed to age, gender, ethnicity, education level, mental illness exposure, and jury experience. Therefore, the fourth research question was revised to state “is the ethnicity of defendant and the age, gender, ethnicity, education level, mental health history, and prior jury experience of potential jurors predictive of index scores for the Strict Liability Scale in the Insanity Defense Attitudes – Revised (IDA-R) scale?”

To this end, an ANCOVA was utilized to answer this research question and examine covariance. Two-way interactions were also assessed for, but found no significant relationships. Main effects were tested directly and gender and case assignment were found to have significant relationships to the Strict Liability Scale of the IDA-R. Specifically, males and individuals assigned the vignette portraying the Caucasian defendant scored significantly higher on the scale. On average, females earned Strict Liability scores of 55.75, while the estimated mean score for males fell at 65.67, which is 9.92 points higher. Additionally, participants assigned the case portraying the African American defendant had a Strict Liability mean score of 57.24, while individuals with the Caucasian defendant earned a score of 64.19 on average, which is 6.95 points higher. The multiple linear regression results for the Strict Liability Scale is outlined further in Table 7 below.

Table 7

Multiple Linear Regression for IDA-R Strict Liability Scale

Variable	DF	F Value	p-value
Age	1	3.15	0.0780
Race	2	1.58	0.2101
Education	2	1.63	0.1998
Gender	1	6.69	0.0106
Mental Illness Exposure	1	2.81	0.0957
Jury Experience	1	1.78	0.1842
Case Assignment	1	4.12	0.0441

Note. N=159.

The relationship between scale scores on the IDA-R and final verdicts rendered was also assessed. A multinomial logistic regression was used due to the categorical nature of the data being used. The NGRI verdict was used as the reference factor variable for other verdicts to be compared to. In regard to the Strict Liability Scale of the IDA-R, the odds of a Guilty verdict being prescribed over an NGRI acquittal increased by 4.5% for every unit increase. In other words, the higher the IDA-R Strict Liability score, the more likely the participant was to choose a Guilty verdict by a factor of 1.045 (p-value=<0.0001).

Table 8

Multinomial Logistic Model: Strict Liability Scale

Level of Verdict	P-Value	Odds Ratio
Not Guilty	0.0590	1.065
Guilty	<.0001	1.045

Research Question Five. Will there be a significant difference in index scores for the Strict Liability and Injustice and Dangerousness scales in the Insanity Attitudes – Revised (IDA-R) scale when participants respond to a vignette of an African American defendant ($\alpha = 0.05$)?

The final research question was amended to assess the same variables research question four as it related to the Injustice and Dangerousness scale of the IDA-R (omitting the Strict Liability scale). This required another ANCOVA with the new scale as the response variable. Similar to research question four, no significant relationships were found within two-way interactions, so main effects were assessed for significance. Additionally, gender and case assignment were the only variables with clinical significance, with males and participants with the Caucasian defendant in the vignette continuing to score higher than their counterparts. These results reflect that, on average, male participants earned an Injustice and Dangerous Scale score that was 6.67 points higher than females. Additionally, participants with a Caucasian defendant vignette earned a scale score that was 5.79 points higher than individuals with an African American defendant case assignment. The multiple linear regression results are expanded upon in Table 9 below.

Table 9

Multiple Linear Regression for IDA-R Injustice and Dangerousness Scale

Variable	DF	F Value	p-value
Age	1	2.63	0.1068
Race	2	2,83	0.0621
Education	2	1.75	0.1780
Gender	1	5.40	0.0215
Mental Illness Exposure	1	1.82	0.1797
Jury Experience	1	2.03	0.1564
Case Assignment	1	5.10	0.0254

Note. N=159.

A multinomial logistic regression was used to assess the relationship between the IDA-R Injustice and Dangerousness Scale and final verdicts rendered. The NGRI verdict was used as the reference factor variable for other verdicts to be compared to. In regard to the Injustice and Dangerousness Scale of the IDA-R, the odds of a Guilty verdict being prescribed over an NGRI acquittal increased by 8.5% for every unit increase. In other words, for every point increase a participant earned on the IDA-R Injustice and Dangerousness score, they were more likely to choose a Guilty verdict by a factor of 1.085 (p-value=<0.0001).

Table 10

Multinomial Logistic Model: Injustice and Dangerousness Scale

Level of Verdict	P-Value	Odds Ratio
Not Guilty	0.0419	1.090
Guilty	<.0001	1.085

Additional Findings

Additional findings not directly related to the research questions are outlined in this section. First, overall final verdicts represented distributed responses among participants, including some individuals (N=9) who found the defendant Not Guilty. The frequency of final verdicts is illustrated in Table 11 below.

Table 11

Frequencies for Final Verdicts

Final Verdict	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not Guilty	9	(5.66)	9	(5.66)
Guilty	66	(41.51)	75	(47.17)
NGRI	84	(52.83)	159	(100.00)

Note. N=159.

Additionally, there was ultimately a great deal of difference among those with jury experience. Further, the number of participants with experience serving on a jury was relatively small. Therefore, discrepancies related to jury type was not examined further. A total of 90 participants (56.6%) reported that they had been called for jury duty before, only 17 (10.06%) however, had experience serving on a jury. Of these 17

experienced jurors, only one had served as a foreperson on a jury, and only one had served on a case involving legal insanity. Jury experience by trial type among participants is outlined in Table 12 below.

Table 12

Trial Type for Experienced Jurors

Trial Type	Frequency	Percent
Civil	7	(4.40)
Criminal	9	(5.66)
Both	1	(0.63)

Note. N=17 for the number of participants with experience serving on a jury.

Chapter V

Discussion

The review of the literature indicated that NGRI pleas are not well understood by the public and that implicit attitudes and biases likely impact decision-making. Therefore, this study sought to examine variables that may influence final verdicts rendered by potential jurors for cases with defendants seeking NGRI acquittals. Following is a discussion of the data, study limitations, and future directions for research.

The purpose of this study was to explore the attitudes of jury-eligible citizens of a Midwestern community as it related to criminal cases of legal insanity. The aim was to assess implicit racial biases that may impact final decision-making for jurors in cases involving a Not Guilty by Reason of Insanity (NGRI) plea. Specifically, this study set out to examine the rate at which potential jurors would: 1) overestimate the rate and success of NGRI pleas in the criminal court system, 2) assign an NGRI verdict to an African American defendant at a higher frequency than a Caucasian one, and 3) score on the two IDA-R scales (Strict Liability and Injustice and Dangerousness) with respect to their randomly assigned defendant in the case vignette. It was expected that this study would have implications for the selection of potential jurors from the public who may have preconceived notions about mental illness and legal insanity, as well as implicit racial biases that may intersect with these attitudes. An aspiration of this study was to aid in jury selection and bias reduction by offering a better understanding of insanity defense attitudes and racial biases.

The first research question was assessed using an item in the post-vignette survey, which asked participants to select a percentage range that they felt encapsulated the number of criminal cases that involve an NGRI plea on average. State and national averages of NGRI prevalence (either the rate at which it is raised or the rate of acquittals) has not been published in recent years (M. Perlin, personal communication, June 26, 2018). Further, a paucity of research exists in relation to public estimates of NGRI prevalence. This is an oversight, as public perception regarding mental illness has shifted in the last twenty years, and this data could serve to better understand juror decision-making. The first two research questions of the present study aimed to update the available literature on public estimation in relation to the rate of cases pertaining an issue of legal insanity. The findings were then compared to the most recent publication of national averages, presented by Silver, Cirincione, and Steadman (1994). Silver, Cirincione, and Steadman (1994) estimated that the national average of NGRI pleas fell just below 1% of all criminal cases. That percentage rose slightly (1.36%) for five counties in the state of Ohio, in which the present study took place. The results of this study found that, on average, participants estimated that legal insanity was raised in 5-10% of all criminal cases, with a modal response of 1-5%. This finding indicates that NGRI pleas were, albeit slightly, overestimated by the general public.

This finding is consistent with previous research that also found misrepresentation of NGRI plea usage by the public, although the present study represents a decrease from earlier and higher estimates. A study by Hans (1986) found that the public believed NGRI pleas were raised in 38% of criminal cases and successful 36% of the time. The present study found estimates that were more conservative and closely aligned with the

1% found by Silver, Cirincione, and Steadman (1994). This shift may be related to numerous active campaigns designed to destigmatize mental illness and increase awareness, resulting in a public more open to dialogue surrounding issues related to mental health (Robinson, et al., 2019). These findings may suggest that the general public has a clearer understanding of the prevalence of severe mental disorders, or a more accurate understanding of legal proceedings than in the past. As mental illness becomes less taboo as subject matter, the public is gaining more understanding about symptomatology, diagnoses, and prevalence. This assumption is supported by research that found that the public has demonstrated more sophisticated knowledge of mental illness, a better recognition of symptoms, and a better response to these symptoms in recent decades (Pescosolido, 2013).

It is also possible that this finding was influenced by participant characteristics. Because a majority of participants in this study held at least an undergraduate degree (70.2%), the sample size potentially carried a higher degree of general fund of knowledge and was able to estimate a figure that was closer to the actual estimate provided by Silver, Cirincione, and Steadman (1994). Overall, although an overestimation of NGRI pleas is consistent with previous findings, a drop in the estimation may represent a more accurate understanding about mental illness and/or the law. Further, the rapid growth of social media allows individuals to be connected to virtually every person they know and have a small window into their daily lives. Recent research has affirmed that social networking sites, like Facebook, serve as a form of perceived social support and connectivity that has changed the way the public is engaged in social interaction to some degree (McCloskey, et al., 2015). Further, most social media users have reported that they use social

networking sites in order to maintain social relationships (Muscanell & Guadagno, 2012). This connectivity can serve as gentle reminders that our friends, family, coworkers, and acquaintances are well. Additionally, social comparison theory posits that, when confronted with new information concerning others, individuals inherently compare themselves to that person (Lee, 2014). As such, social media users have the tendency to use these sites to develop and maintain social capital, and self-disclosure on social networking sites is done with some expectation of evoking a response from viewers and readers (Johnston, et al., 2013). Therefore, some degree of impression management is assumed in regard to social media presence. The absence of alarming signs of psychological distress on these platforms serves to reaffirm typologies regarding mental illness, particularly when you consider that people tend to present their “best selves” on social media, coined as “self-branding” (Duffy & Chan, 2019). In other words, the rarity of the severe mental illness that would be required to be acquitted NGRI is more plausible when you consider how your connections are functioning, as represented by their social media presence.

Similarly, the second research question assessed for potential juror estimates of the rate of successful NGRI acquittals. This research question was also examined using a single, forced-choice item in the post vignette survey, which required that participants select a single percentage range that encompassed their best estimate of NGRI acquittals. The study conducted by Silver, Cirincione, and Steadman (1994) established that the national average of NGRI acquittals was around 26% (the Ohio average fell at 15.3%). The results of the present study found that participants estimated that NGRI defendants were acquitted 1-5% of the time. Additionally, the modal response to this item fell in the

0-1% range. Thus, participants vastly underestimated the percentage of NGRI acquittals, indicative of the belief that NGRI acquittals are difficult to achieve. This directly opposes published myths that NGRI defenses are often used as a “loophole” to get away with a crime and can be won with the right attorney or expert witness (Perlin, 2017).

Additionally, it represents a stark difference from the Hans (1986) study, which found that “9 out of every 10 respondents agree that the insanity defense is a loophole allowing too many guilty people to go free.”

This disparity is potentially related to movements discussed for the previous research question. A more accurate understanding around mental illness, particularly severe and persistent mental illness, and its prevalence (even anecdotally) could be one cause of lower estimates. If individuals understand the strict criteria required to be eligible for an NGRI plea, they may also be able to provide such conservative estimates based on how many people they have personally encountered with such a severe and persistent mental illness. Another potential explanation lies in recent political climates and trends towards more tough-on-crime initiatives. If NGRI acquittals are associated by the public as an avenue for escaping punishment, awareness regarding America’s punitive judiciary system and high rates of incarceration (Bureau of Justice Statistics, 2018) could drive more conservative estimates of successful NGRI pleas. In other words, participants potentially assumed that the justice system would be more likely to reject NGRI pleas in favor of prescribing the appropriate punishment for the crime committed.

A final explanation for this result may rest with a limitation in the question design itself. Participants were asked to provide their answer to the item “how often do you think the insanity defense is successful?” However, this question may have been ambiguous to

the participant, as it did not clarify the group to be considered. Specifically, participants may not have understood to provide the percentage that described acquittals among the number of NGRI cases being plead, and instead provided percentages for all criminal cases, regardless of the presence of legal insanity. This certainly would have resulted in a more conservative estimate. Future studies including this element might choose to phrase the question in a more concise manner.

When considering this finding in conjunction with legal insanity attitudes (as measured by the IDA-R) represented by the sample size, it becomes clearer that participants are likely engaged in a more accurate understanding of both mental illness and legal proceedings. Scores on the IDA-R Strict Liability Scale ranged from 19 to 120, reflecting a wide range of responses and attitudes. The mean score fell at 58.98, and the modal response was 45. Similarly, scores on the IDA-R Injustice and Dangerousness Scale ranged from 14 to 85, with a mean response of 41.59 and a modal response of 31. A trend towards lower scores on these scales, which are correlated with more positive attitudes regarding legal insanity, may be indicative of more realistic expectations about the use and success of NGRI pleas, as seen in these findings.

The third research question was designed to assess implicit racial biases related to criminal cases of legal insanity by asking potential jurors to assign a final verdict to a defendant in a case vignette. Participants were randomly assigned into two groups and given case vignettes that were identical with the exception of the defendant's race. One group received a vignette with a Caucasian defendant and the other an African American defendant. Previous literature suggested that the African American defendant would be more likely to receive an NGRI acquittal as a result of higher rates of highly stigmatized

psychiatric diagnoses (Perry, Meltner, Allen, 2013), harsher and longer sentencing (Leiber & Mack, 2003), and an overrepresentation among NGRI acquittees (Dirks-Linhorst, 2013).

It is interesting that the race of the defendant in the case vignette was just outside of statistical significance, inconsistent with what has been found in previous studies (Perry, Neltner, & Allen, 2013). It is possible a larger sample size would have found that the race of the defendant was significant and that African American defendants are more likely to be acquitted NGRI, but that hypothesis was not supported by the results of the present study. One potential explanation for this result may relate to the design of the study. Specifically, the impact of race may have been diminished without imagery to represent the defendant of the case. If a photograph of either an African American or Caucasian defendant had accompanied the text in the case vignette, for instance, race may have been a more salient factor that impacted decision-making. This unexpected finding might also represent a community that is more aware of diversity issues and the disenfranchisement of the African American community. Race issues are gaining more attention in the present social climate, such as recent campaigns to have more diverse representation in media, awards ceremonies, and government positions. This growing awareness may translate to decision-making less impacted by bias.

While race of the defendant fell outside of clinical significance, the present study found that the race of the potential juror had a significant relationship with the final verdict. Specifically, the odds of a defendant being acquitted NGRI by other (non-African American) minority groups were 0.125 times the odds for Caucasian participants. In other words, other minority groups were 85% less likely to acquit a defendant NGRI than other

racial groups. The disparity in verdicts provided by other racial groups was unexpected. Some authors experienced in jury selection have posited that, generally, some races and ethnicities are more conviction-oriented, while others are more oriented toward the defense (Lieberman & Sales, 2007). This hypothesis was supported by a study of the insanity defense that found Hispanic individuals more likely to convict defendants in NGRI cases as a result of more politically conservative beliefs (Cutler, Moran, & Narby, 1992). Overall, because research on the impact of juror diversity variables in NGRI decision-making is lacking, it is difficult to explain this finding. In a meta-analysis of implicit racial biases among potential jurors, Mitchell et al. (2005) observed disparate treatment of racial out-group members when participants and defendants were grouped by race. A similar concept may have occurred in the present study, by which participants belonging to a racial group unrepresented by either vignette engaged in harsher decision-making of the defendant. Expressly, participants who represented neither Caucasian nor African American culture conducted harsher sentences for members of their out-group.

No other significant differences among variables were detected. This finding was relatively consistent with previous research that has found little or no significance in juror's age (Higgins, Heath, & Grannemann, 2007) and mental illness exposure (Shiva, 2001) with final verdict decision-making. However, previous studies have found the gender of the potential juror to be an important variable in decision-making in cases involving legal insanity, with females more likely to render an NGRI verdict than males (Breheney, Groscup, & Galietta, 2007). While that finding was not supported by the present study, more positive insanity defense attitudes, as measured by the IDA-R, were found among female participants than male participants. Specifically, female participants

earned scale scores on the IDA-R that were significantly lower than their male counterparts, overall.

The final research questions concerned the predictive utility of demographic variables of participants and their scores on the two scales of the IDA-R. Additionally, correlation between scale scores and the final verdicts rendered was also observed. For both the Strict Liability Scale and the Injustice and Dangerousness Scale of the IDA-R, gender and case vignette assignment were significant. Specifically, female participants had significantly lower scores than males, and participants with the vignette portraying the African American defendant also held lower scores than participants with the Caucasian defendant. These findings would indicate that female participants viewed the defendant as less responsible for the crime committed, consistent with previous research (Breheny, Groscup, & Galietta, 2007). Additionally, the African American defendant was also viewed as being significantly less able to appreciate the wrongfulness of his actions than the Caucasian defendant. This result is consistent with an earlier finding by Poulson (1990), who wrote “it appears that the black defendant’s level of criminal responsibility was mitigated by virtue of his attributed mental instability.” The participants of Poulson’s (1990) study perceived the Black defendant as acting under the influence of mental defect, while the White defendant was viewed to be acting of his own free will. Poulson (1990) attributed this disparity to White defendants being viewed as faking disorders significantly more than Black defendants, in addition to the general belief that Black individuals were more likely to experience auditory hallucinations or possess less mental stability. Those findings would certainly be indicative of biases and discrimination at decision-making levels of the judicial system, and are relatively

consistent with more recent findings that the African American community continues to be disenfranchised by judicial and health systems (Perry, Meltner, & Allen, 2013).

Lastly, participant performance on the IDA-R scale scores were found to be predictive of final verdict. Specifically, the chances of a Guilty verdict became higher with each point increase on either of the IDA-R scale scores. This is consistent with research done by Wanner (2016) who found that participants with lower IDA-R scores were more likely to acquit defendants as Not Guilty by Reason of Insanity. Because lower scores on the IDA-R are reflected of an individual less susceptible to the insanity myths outlined in the literature review, this finding was relatively expected.

Summary

The present study found that participants overestimated the prevalence of NGRI pleas, consistent with previous research. Participants tended to underestimate the success of NGRI pleas - believing that NGRI acquittals occurred at a rate of 1-5%. Final verdicts rendered by participants appeared to be influenced only by the race of the participant, with individuals from Non-African American minority groups 85% less likely to acquit NGRI. The race of the defendant was not clinically significant, inconsistent with previous research. Participant scores on the IDA-R scales were significantly lower for individuals who were randomly assigned the African American defendant. IDA-R scores were also lower for female participants. These findings might be representative of a changing social climate by which racial disparities and mental illnesses are more commonly discussed on open forums.

Implications

Research regarding legal insanity continues to grow rapidly, including ongoing debates about the potential abolition of criminal nonresponsibility pleas for defendants with a mental disease or defect (Calkins, 2019). This study contributed to the growing body of scientific literature related to legal insanity and jury selection. Specifically, the primary goal was to obtain a snapshot of participants' attitudes regarding the NGRI defense, with some potential to shape the voir dire process. As suggested by Skeem and Golding (2011) for the basis of the IDA-R, insanity decision-making typically relies on prototype theory, by which jurors compare the defendant to a previously established categorization of "insanity." If a juror's prototype of legal insanity is misinformed, that individual may render a decision that misaligned with the desired outcome. The IDA-R has proven a reliable indicator of attitudes involving legal insanity, which was reiterated by the present study. Explicitly stated, the higher the individual's score on either IDA-R scale, the more likely they are to render a guilty verdict. In cases of legal insanity, it might prove beneficial to use the IDA-R as a screening tool to measure juror attitudes. Positive attitudes are directly correlated to more NGRI acquittals, so the IDA-R measure would have some predictive utility and the ability to closely examine biases. Outlying performers could be removed in voir dire as a result of strong attitudes or beliefs regarding legal insanity, and remaining jurors could be provided education to diminish reliance on legal insanity prototypes. In other words, jurors who score extreme scale scores (starkly high or low) on the IDA-R would be indicative of individuals with strong beliefs regarding NGRI, who would almost certainly make decisions that were impacted by this bias. Those individuals could be asked to leave the jury while the rest receive

some education about NGRI criteria and perhaps some misconceptions associated with it. These steps would serve to ensure that more objective data points were being considered in NGRI decision-making, rather than insanity prototypes or categorizations, which may or may not be misinformed.

Furthermore, other points from present findings can be considered in juror selection or education. Specifically, the finding that some juror characteristics may inform decision-making should be considered. Diversity variables have potential to inform behavior and attitudes across an innumerable number of spectrums, and attorneys already use knowledge of these variables to inform voir dire (Mitchell, Haw, Pfeofer, & Meissner, 2005). The finding that non-African American minority groups are more likely to render guilty verdicts is an important factor for attorneys to consider, but also an interesting direction for future studies to explore.

Limitations of the Study

Although the present study provided insight into the attitudes the public holds concerning legal insanity, several limitations should be acknowledged. Much of the limitations to this study were related to participants and recruiting. First, like most studies, this study relied on voluntary responding, which is influenced by characteristics and motivations that cannot be fully understood. In other words, individuals who choose to participate (or not) have variables and factors that motivate their willingness to do so. Those factors vary greatly from actual jurors, who are mandated to participate. Similarly, this study followed inclusion and exclusion criteria that closely matched criteria to serve on a jury within this community; however, a paper (or online) vignette and survey are a far cry from the procedures and atmosphere of an actual jury experience, and lacks the

same weight and evidence as a real trial would. Potential juror decision-making in an *in vivo* experience may vary greatly from an experience that lacks much context and is provided in reading format. It is difficult to comprehend how decision-making factors might be indirectly influenced by these context differences. Further, the jury instructions provided to participants on the case vignette of this study differed from those that would be received by actual jurors in an attempt to simplify instructions and assist comprehension. The impact of that modification should also be considered a limitation, as it did not use the same language that actual juror instructions would contain.

Additionally, the limited gender and ethnic diversity within this study presented another limitation. This study had a total of 159 participants that were included in data analysis, a disproportionate number of which were Caucasian (78.1%) and female (64.4%). This participant demographic is not representative of the current population of this Midwestern community, although efforts were made to recruit a diverse sample of participants. Further, the generalizability of this study might be limited, as cultural and social constructs vary by geographical areas. Despite this limitation, the results are relatively consistent with other studies that assessed insanity defense attitudes. However, lack of representation in some categories made it impossible to analyze interactions above a 2-way with the current sample size. In other words, it is possible that some subsets of populations would have presented with results that were clinically significant but there was no way to test for this in the present study. For example, it is conceivable that African American females with a graduate degree would have significantly differed in their responses than Latino males with an undergraduate degree, but there were not enough participants with all three of these variables to assess three-way interactions (or

higher). Thus, all the data was analyzed with main effects and significant two-way interactions.

Another potential limitation is related to the exclusion criteria of needing a high school diploma or GED equivalent in order to participate. This criterion is not required for jury selection, but was a participation requirement due to the required reading level of the materials that individuals interacted with. Literacy cannot be assumed based on education obtained, as it is possible to have lower than a 12th grade reading level with a high school diploma or GED. This was a limitation to the present study, and future studies are encouraged to present a vignette or case study with a standard 6th or 7th grade reading level to insure reader comprehension and ease of use of the required materials.

After this study was carefully reviewed by an expert in forensic evaluations, limitations to the case vignette were noted and should be highlighted. First, while the presence of a murder victim is implied, it is not explicitly stated that a victim was found or the charges placed on the defendant. Additionally, because the vignette does not extensively describe the actions of the defendant, particularly after the crime, the wrongfulness prong of the NGRI statute can be difficult to establish. For instance, the manner in which the defendant is caught and his response to his charges are not stated, but could have been evidence in support of or against the defendant as understanding the wrongfulness of his crime. With the limited information provided in the vignette, an evaluator might not be able to prove that the defendant understood the wrongfulness of his crime, resulting in an unclear determination. Since most of the participants assigned an NGRI verdict to the defendant (53%) instead of guilty verdicts (42%), the assumption

is that more NGRI verdicts might have been rendered if the wrongfulness prong had been more explicitly stated.

Regarding recruitment, paper surveys and public canvassing were the primary method initially. In response to slow recruitment, accessibility issues, and concerns about getting a diverse pool of participants, the researcher created an exact copy of the data packet in an electronic format. This adjustment also served to streamline data analysis and reduce human error that may have resulted from copying participant responses into data configuration systems. Although unlikely, it is worth noting that the different formats may have impacted participant responding in some manner.

It should also be pointed out that this study used a self-report method that assumed honest and consistent responding on the anonymous survey, which inquired about sensitive items. Specifically, the stigma related to mental illness and felony convictions may have resulted in a social desirability effect. Participants may have chosen to be less forthcoming about felonies or mental illnesses, but this would have been impossible to verify. Given the high frequency of individuals who acknowledged personal or exposure to mental illness (32.7%), a large social desirability effect is unlikely. Similarly, 23 participants were excluded on the basis of a felony conviction. These findings suggest that most individuals did not attempt to manipulate responses in order to be more socially accepted.

During data analysis, individuals who rendered a final verdict of not guilty (N=9) had to be excluded due to Quasi-Complete Separation. This phenomenon can be characterized by a perfect outcome prediction. Specifically, because no African American participants provided verdicts of “Not Guilty,” the data was misinterpreted to show that

race could perfectly predict verdicts rendered, which is not factual. As a result, those participants were excluded and only Guilty and NGRI verdicts were analyzed. A larger sample size might negate this effect in future. Further, some understanding around the motivations for participants to provide Not Guilty verdicts may be warranted, as it is an unexpected conclusion.

Lastly, the scale being utilized for this study (Insanity Defense Attitudes – Revised scale), was normed on a population in Utah of primarily White participants (95%). No African American participants were involved in that normative sample. Particularly because differences were found among some racial groups, the diversity variable impact of IDA-R standardization should be highlighted. Additionally, the reading level of this measure (10th grade) can be considered relatively high. Overall, few measures exist related to legal insanity. Most recent measures assess a respondent's *knowledge* of legal insanity, and appears to have promise for future directions with potential to address some of the limitations inherent in the IDA-R (Daftary-Kapur, et al., 2011).

Future Directions

This study on insanity defense attitudes and racial biases has potential to serve as a pilot study for researchers wishing to further address diversity issues within cases of legal insanity. Additionally, it served to update data regarding public perception of NGRI prevalence rates. As previous studies have asserted, a systemized process for reporting NGRI data within a centralized location would be ideal for future research regarding legal insanity. The ability to access state and national averages of NGRI use and success would further serve to create a more accurate portrayal of jurisdiction-specific patterns,

decision-making, and attitudes as it relates to legal insanity. Future research should target actuarial data related to the national and state rates of NGRI pleas and acquittals, as well as refining the variables assessed as it relates to the variables that can impact juror decision-making. Some factors are nearly impossible to diminish, such as motivations for voluntary participation or controlling for the gravity of a real trial; however, the impact may be lessened if participants came from a pool of actual jurors and the study took place in a courtroom setting. Other noted limitations might be mitigated by a larger sample size. Specifically, diversity of the sample size, as well as the verdicts rendered (only nine chose Not Guilty), were considered limitations that could have been addressed with more participants. A more diverse sample size in regard to race and education would also serve to better represent the characteristics of the community, and thus more reflective of an actual venire.

Future studies regarding legal insanity in criminal cases may choose to employ a four-way analysis that considers the race of both the defendant and the victim. A previous study by Poulson (1990) examined these differences and found no significant relationship to the race of the victim (although the race of the defendant was significant); however, this study primarily examined cases with GBMI options. Therefore, a study with a similar design as the present study that employed a larger sample size in order to increase power and engage in higher-order interaction effects could make exploration of meaningful differences more impactful.

Additionally, the link found between race of the participant and final verdicts creates a compelling avenue of future research. Particularly, racial and ethnic groups and the covariance of political views. A study that added a measure of political beliefs

(preferably beyond general political affiliation) in cases of legal insanity may discover a three-way interaction between race, political ideologies (e.g., conviction- or defense-oriented), and final verdicts. A paucity of research exists in which the diversity variables of jurors is explored in cases with a question of NGRI, and future studies would likely find that multicultural issues play a significant role in decision-making for cases regarding legal insanity.

This study examined primarily how implicit racial biases may impact juror decision-making, but many other factors contribute to this process. A recent study by Ajoku (2016) found that public anger associated with the presented case was able to accurately predict verdicts provided by participants. Studies that employ some assessment of the emotional reaction to a presented case may be warranted since the researcher received feedback from participants that the case vignette evoked an emotional response.

Conclusion

The factors that impact decision-making among jurors are complex and are worth examination. This acknowledgment is especially salient when you consider the dynamic variables that may impact juror responding. Additionally, it is evident that implicit racial biases have implications for African American offenders at multiple levels of correctional and judiciary systems. This study sought to examine how those biases might impact potential jurors in decision-making regarding cases of legal insanity.

In pursuit of this goal, the findings were notable for their impact on legal outcomes: (a) potential jurors overestimated the percentage of cases in which the concept of legal insanity was raised, (b) the percentage of successful NGRI acquittals was

severely underestimated, (c) race of the participant impacted final verdicts for non-African American minority groups, and (d) scale scores on the IDA-R were predictive of final verdicts rendered by participants. While these findings contribute to the body of literature on variables in cases of legal insanity that affect verdicts, much remains unknown about factors responsible for differences in decision-making among jurors.

Appendix A

Study Cover Letter

Introduction. This study is being pursued by Jerie Bolin, M.A., a psychology trainee and student from Wright State University's School of Professional Psychology in Dayton, OH as a part of her dissertation requirement. Participants of this study, which examines venirepersons attitudes surrounding the insanity defense as well as the impact of implicit biases in decision-making in cases of legal insanity, may this cover letter for documentation and information about the research.

This page contains information about the research and invites you to be a participant. You may take your time to decide your willingness to participate and you may also contact or consult with anyone you feel comfortable with about this research. If at any time you encounter a word or phrase you do not understand, please ask the researcher to stop and she will take time to explain it to you. If you have questions later about this research (prior to or after participation), you may contact the principal researcher or her academic advisor and dissertation chair (supervisor). Contact information has been provided below.

Principal researcher: Jerie Bolin, M.A.

Contact email: bolin.14@wright.edu

Institution: Wright State University, School of Professional Psychology

Dissertation chair (supervisor): LaTrelle Jackson, PhD

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Purpose of the Research. Jurors are expected to serve as blank slates and to engage in decision-making without involving any prejudices or biases, yet research finds that this is very difficult to do. Research also finds that people generally hold inaccurate beliefs about cases of legal insanity, or the verdict of Not Guilty by Reason of Insanity (NGRI). This research aims to measure those attitudes around legal insanity as well as how decision-making might be impacted by implicit biases. This research will involve reading a case vignette about a case of legal insanity and completing forms, including a short survey, about that case and general demographic information.

Description of the Process. Participants are being selected from this location due to your eligibility to serve on a jury and represent the community. Your participation is entirely voluntary. It is your choice to participate, or not. Your duty as a potential member of a jury will not be impacted by your participation in this study. You may change your mind at any time and withdraw from this study, even if you previously agreed to participate. It is anticipated that the vignette and accompanying measures will take between 8 and 15 minutes to complete in their entirety. No risks or side effects are anticipated and as

previously mentioned, your participation will not impact your potential participation on a jury. No reimbursement is being offered for participation, although you may elect to provide some contact information in order to enter a drawing for a VISA Gift Card.

Confidentiality. The information we collect from this research project will be kept confidential. Identifying information is not being collected for the purposes of this study and you cannot be linked to your responses. Your name and phone number may be collected on a sign-up sheet in order to contact you to claim a prize for your participation, but this step is optional if you would prefer to not provide your name. Information about you that will be collected will be stored in a location where only the researchers can access it. It will not be shared with or given to anyone except the principle researcher, and potentially the dissertation chair and the IRB board. Confidential information will not be shared but collective findings will ultimately be published in the researcher's dissertation so that others can learn from this study.

Right to Refuse or Withdraw. You may choose to not participate in this study. Additionally, as a participant, you have the right to withdraw, without reason, at any point in time, even if you previously agreed to participate. Refusing will not impact your ability to serve on a jury in any way.

Appendix B

Demographic Questionnaire

Instructions: This questionnaire asks for some general background information about you. Please respond honestly. All answers to this questionnaire are confidential and anonymous.

Age:

Gender:

U.S. Citizen? Y N

Race/Ethnicity:

What is your highest level of completed education?

1. Some high school
2. High school diploma
3. GED
4. Undergraduate degree
5. Professional degree
6. Master's degree
7. Doctoral degree

1. African American/Black/African Origin
2. Asian American/Asian Origin/Pacific Islander
3. Hispanic/Latino/a/x
4. American Indian/Alaska Native
5. European Origin/White
6. Bi-Racial/Multi-Racial
7. Other

Have you ever been convicted of a felony offense? Y N

Have you been called for jury duty before?

Y N

Have you ever served on a jury before?

Y N

Have you ever been diagnosed with a mental illness?

Y N

Has someone close to you ever been diagnosed with a mental illness?

Y N

Answer the questions in this box ONLY if you have previously served on a jury.

Was the trial:

1. Civil
2. Criminal
3. Both
4. Not applicable

Were you a foreperson on the jury?

Y N

Have you sat on a jury for a case where there was a question of legal insanity for the defendant?

Y N

Appendix C

Insanity Case Vignette

Christopher Davis, a (race inserted here), 32-year-old male worked as a bus attendant for the last twelve years in a major Midwestern city. Eyewitnesses reported that the defendant left his workplace (in uniform) shortly after the victim got off on a stop near the business district and began walking to work. The defendant had been driving the bus when he suddenly stopped halfway through his route at a stoplight that was not a designated bus stop. Mr. Davis (the defendant) was arrested 3 blocks away from the where the bus was stopped after an officer noticed him carrying a flashlight (during the day) and a construction worker's hard hat. Upon arrest, a 5-inch, blood-stained knife was found on his person, which was later identified as the murder weapon via blood-type matching. The defendant's fingerprints were also on the handle of the knife, as well as the blade. Testimony later identified the knife as a carving knife used by kitchen staff at a local café, located one block away from the where the bus was stopped by Mr. Davis. How Mr. Davis obtained the knife is unclear, but the manager of the café reported that it is common practice for the chefs to leave the back door propped open to "circulate air" in the humid kitchen.

A court-appointed psychologist and a psychiatrist examined the defendant. Both agreed that the defendant had been socially isolated for the last decade. During his senior year of college, he withdrew from peers and his GPA fell significantly. A representative from his college provided documentation that his performance in school deteriorated severely. After college, he held service industry jobs and required public assistances to support himself. Several witnesses expressed that the defendant was frequently unkempt and disheveled in appearance. Coworkers of Mr. Davis reported that he was isolated and rarely spoke. Further, when he did speak, he tended to be vague and would ramble and be difficult to follow. Ideas that he expressed didn't appear to make sense and he would offer responses that were irrelevant to the questions being asked. Mr. Davis reported to coworkers and police that he was convinced that the government had placed operatives disguised as construction workers to spy on American citizens and study them by using sophisticated technology to read their thoughts. This is why, Mr. Davis reasoned, some construction workers could be seen not engaging in any physical labor, but seemingly just "standing around." He believed that these construction workers planned to kidnap him to study his brain in an effort to learn techniques of mental control. Furthermore, he believed himself to be a target because he was "on to them," and had noticed this particular group of construction workers working along his bus route. Per the police report, when the defendant left the bus to follow the victim, he believed the victim had been staring at him because he intended to kidnap the defendant to study him.

To help you reach your final verdict, please note:

In claiming a defense of Not Guilty by Reason of Insanity, the question is whether the defendant had use of reason and his senses at the time of the offense. Mr. Davis must prove in trial that he had a mental illness *at the time of the crime* and was not able to understand the nature of his criminal behavior or the moral or legal wrongfulness of his actions because of a mental disease or defect.

Appendix D

Post-Vignette Survey

Instructions: This survey asks you to make a decision about the case vignette you just read and for your beliefs on insanity defense use. Please respond honestly. All answers to this questionnaire are confidential and anonymous.

What is your verdict in this case?

1. Not guilty
2. Guilty
3. Not Guilty by Reason of Insanity

How confident are you in your verdict?

- 1—2—3—4—5—6—7—8—9—10
- Not at Extremely
all Confident Confident

How often do you think the insanity defense is used?

1. In 0-1% of cases
2. In 1-5% of cases
3. In 5-10% of cases
4. In 10-20% of cases
5. In 20-30% of cases
6. In 30-40% of cases
7. In 40-50% of cases
8. In 50-60% of cases
9. In 60-70% of cases
10. In 70-80% of cases
11. In 80-90% of cases
12. In 90-100% of cases

How often do you think the insanity defense is successful?

1. In 0-1% of cases
2. In 1-5% of cases
3. In 5-10% of cases
4. In 10-20% of cases
5. In 20-30% of cases
6. In 30-40% of cases
7. In 40-50% of cases
8. In 50-60% of cases
9. In 60-70% of cases
10. In 70-80% of cases
11. In 80-90% of cases
12. In 90-100% of cases

Appendix E

The Insanity Defense Attitudes – Revised (IDA-R) Scale (Skeem, Louden, & Evans, 2004)

ATTITUDE SURVEY

On the following pages, you will find statements that express commonly held opinions about the insanity defense. We would like to know how much you agree or disagree with each of these statements. To the right of each statement is a rating scale. You may interpret the seven points on this scale as follows:

<u>1</u>	/	<u>2</u>	/	<u>3</u>	/	<u>4</u>	/	<u>5</u>	/	<u>6</u>	/	<u>7</u>
STRONGLY DISAGREE		DISAGREE		SLIGHTLY DISAGREE		NEUTRAL		SLIGHTLY AGREE		AGREE		STRONGLY AGREE

After reading each statement, please circle the point on the scale that comes closest to saying how much you agree or disagree with the statement.

	Disagree			Agree			
1. I believe that people should be held responsible for their actions no matter what their mental condition.	1	2	3	4	5	6	7
2. I believe that <u>all</u> human beings know what they are doing and have the power to control themselves.	1	2	3	4	5	6	7
3. The insanity defense threatens public safety by telling criminals that they can get away with a crime if they come up with a good story about why they did it.	1	2	3	4	5	6	7
4. I believe that mental illness can impair people’s ability to make logical choices and control themselves.	1	2	3	4	5	6	7
5. A defendant’s degree of insanity is irrelevant: if he commits the crime, then he should do the time.	1	2	3	4	5	6	7
6. The insanity defense returns disturbed, dangerous people to the streets.	1	2	3	4	5	6	7
7. Mentally ill defendants who plead insanity have failed to exert enough willpower to behave properly like the rest of us. So, they should be punished for their crimes like everyone else.	1	2	3	4	5	6	7
8. As a last resort, defense attorneys will encourage their clients to act strangely and lie through their teeth in order to appear “insane.”	1	2	3	4	5	6	7

9. Perfectly sane killers can get away with their crimes by hiring high-priced lawyers and experts who misuse the insanity defense. 1 2 3 4 5 6 7
10. The insanity plea is a loophole in the law that allows too many guilty people to escape punishment. 1 2 3 4 5 6 7
11. We should punish people who commit criminal acts, regardless of their degree of mental disturbance. 1 2 3 4 5 6 7
12. It is wrong to punish people who commit crime for crazy reasons while gripped by uncontrollable hallucinations or delusions. 1 2 3 4 5 6 7
13. Most defendants who use the insanity defense are truly mentally ill, not fakers. 1 2 3 4 5 6 7
14. Some people with severe mental illness are out of touch with reality and do not understand that their acts are wrong. These people cannot be blamed and do not deserve to be punished. 1 2 3 4 5 6 7
15. Many of the crazy criminals that psychiatrists see fit to return to the streets go on to kill again. 1 2 3 4 5 6 7
16. With slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom. 1 2 3 4 5 6 7
17. It is wrong to punish someone for an act they commit because of any uncontrollable illness, whether it be epilepsy or mental illness. 1 2 3 4 5 6 7
18. I believe that we should punish a person for a criminal act only if he understood the act as evil and then freely chose to do it. 1 2 3 4 5 6 7
19. For the right price, psychiatrists will probably manufacture a “mental illness” for any criminal to convince the jury that he is insane. 1 2 3 4 5 6 7

20. How strongly do you feel about the insanity defense?

Not at all 1 2 3 4 5 6 7 Very strongly

21. How personally important is your opinion on the insanity defense?

Not at all 1 2 3 4 5 6 7 Very important

22. How much do you care about the insanity defense?

Not at all 1 2 3 4 5 6 7 Very much

Appendix F

Gift Card Drawing Sign Up

As a participant in this study, you have the option to be entered into a drawing for a \$15, \$25, or \$50 VISA Gift Card. This step is optional. If you would like to be entered, please provide some contact information below. Your name cannot be linked to the responses you provided in this study and your contact information will be kept confidential. This information will not be sold or used except to contact you as a gift card winner.

Name:	Phone Number:	Best Time to Reach You:

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