WORDS MATTER:

MEASURING RAPE MYTH ACCEPTANCE THROUGH SURVEY DESIGN

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Abstract

Sexual assault on college campuses has been a pervasive topic in American media, legislation, culture, and politics for some time. Recent legislative initiatives have increased the requirements of college campuses to investigate reported instances of sexual violence, educate communities about risk factors, and provide services to victims. The prevalence of sexual violence on college campuses is attributed to a multitude of factors. Among these, the acceptance of rape myths has been correlated with an increased propensity for males to offend and increased self-blame among victims (Powers et al., 2015). Rape myths are culturally held beliefs that create a climate that normalizes sexual violence, specifically, violence by men against women. While many do not consider the use of such language as harmful in and of itself, research shows that perpetrators of sexual and domestic violence are more likely to adhere to such myths among other attitudinal characteristics.

This research examines how wording changes to one rape myth acceptance measure, the Updated Illinois Rape Myth Acceptance Scale (uIRMA) (McMahon & Farmer, 2011), affects student responses to the rape myth acceptance measures. I hypothesized that students are unlikely to respond honestly to measures of rape myth acceptance because of word choice that is socially undesirable, such as using the word, "rape," and gendered language structure that places men in the role of perpetrator and women and girls in the role of victim. It was hypothesized that a theoretically rooted update to the measurement tool that uses gender neutral language and replaces the word "rape" with "sexual assault" would result in an increased acceptance of rape myths.

Using classical experimental design, respondents were randomly assigned to two test groups: one with the original uIRMA language, and one with a revised version (referred to as the

rIRMA) that uses gender-neutral phrasing and eliminates the word, "rape." The findings of this research are in support of the hypothesis. Students given the revised measure showed heightened acceptance of rape myths as compared to those who received the uIRMA.

The importance of reliable and relevant measurement tools is paramount to social scientific research. In the field of campus sexual violence, an accurate understanding of student perceptions and attitudes can help predict perpetration within communities and prevent self-blame among victims. This research is a small contribution to an important body of research regarding the attitudes and beliefs that may precipitate sexual assault.

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Chapter One: Introduction and Statement of the Problem

Sexual assault on college campuses has been a pervasive topic in American media, legislation, culture, and politics for some time. Since the invocation of the Jeanne Clery Act in 1990, following the rape and murder of a student at Lehigh University in 1986, the federal government has taken increasing steps to address not only sexual violence, but crime in general on college campuses. The Jeanne Clery Act, Title IX, and the Violence Against Women Reauthorization Act have increased the requirements of college campuses to investigate reported instances of sexual violence, educate communities about risk factors, and provide services to victims. An estimated one in four to one in five women will experience attempted rape during her college career (Krebs, 2016; Fischer et al. 2000; Yeater & O'Donahue, 1999). Despite this already astounding data, additional research estimates that these numbers may be low given the prevalence of underreporting of crimes of sexual violence, including rape, forced touching, verbal coercion, and harassment (Giovannelli & Jackson, 2013; Abbey, 2002; Fischer, et al. 2000).

The prevalence of sexual violence on college campuses is attributed to a multitude of factors: environmental, psychological, social, attitudinal, and cultural. Among these, the acceptance of rape myths has been correlated with an increased propensity for males to offend and increase in self-blame among victims (Powers et al., 2015). Research outside of college campuses has shown that the acceptance of rape myths, among other attitudinal characteristics, such as hostility toward women, has been associated with an increase in intimate partner violence (Anderson et al., 2004).

Rape myths are culturally held beliefs that create a climate that justifies sexual violence, specifically, violence by men against women (Burt, 1980; Brownmiller, 1975). Rape myths have

become an important survey measure in understanding violence against women. The Illinois Rape Myth Acceptance Scale (IRMA) is a widely-used tool for measuring rape myth acceptance. Developed by Payne, Lonsway, & Fitzgerald (1999), the original Illinois Rape Myth Acceptance Scale used 45 items to measure rape myth acceptance on a five point Likert scale. Noting the concern over the length of the survey, the authors also created a 20 item short form (IRMA-SF) (Payne et al., 1999). Finding a need for an updated measure of the IRMA, McMahon and Farmer (2011) designed a 22 item scale developed from the full 45 item IRMA evaluating four rape myth subscales: "she asked for it," "he didn't mean to," "it wasn't really rape," and "she lied."

Table 1. 1 Versions of the IRMA

RMA Scale	Number of Items
Illinois Rape Myth Acceptance Scale (IRMA)	
Payne, Lonsway, & Fitzgerald, 1999	45 items
Illinois Rape Myth Acceptance Scale Short Form (IRMA-SF)	
Payne, Lonsway, & Fitzgerald, 1999	20 items
Updated Illinois Rape Myth Acceptance Scale (uIRMA)	
McMahon & Farmer, 2011	22 items

While the original and updated versions of the IRMA have proven to be a useful tool for measuring rape myth acceptance, several methodological concerns challenge the conclusions that can be drawn from it. Since McMahon & Farmer's (2011) updated IRMA (uIRMA), increased education and preventative programming efforts have sparked on college campuses, especially with increasing requirements from the federal government through the Jeanne Clery Act, the Violence Against Women Reauthorization Act, and Title IX. This research develops the argument that the IRMA (specifically the uIRMA) is an outdated measure of rape myth acceptance and that changes to the 2011 version are necessary to elicit honest, reliable and valid responses from college students today.

Chapter Two: Literature Review

Background: Sexual Assault on College Campuses

Sexual assault on college campuses has been a prevalent topic in academic, media, and popular discussion in recent years. An estimated one in four to one in five women will experience attempted rape during her college career, and the research is clear that women are being victimized on college campuses at a rate higher than that of the average population (Krebs et al., 2016; Fischer et al., 2000; Yeater & O'Donahue, 1999). National attention and research on this issue have prompted legislative changes in hopes of reducing the prevalence of campus sexual assault through a variety of measures, such as increased education, training, and policy changes. Research and education efforts have largely focused on risk-factors of female victimization, the need for victim-centered responses, and norms that may contribute to male perpetration (Humphrey, 2000). The foundation of knowledge regarding campus sexual violence, its prevalence, and the factors that contribute to it are invaluable to efforts by researchers and practitioners to address the issue. The information available has already led to positive changes in how campuses respond to sexual violence.

The college environment promotes a set of norms that have been shown to increase the risk of sexual assault, including the pressure to be sexually active (also referred to as "hook up culture"), abuse of alcohol, objectification of women, and the construct of sex as a masculine conquest (Fisher, 2009). Research has established that the adherence to rigid gender roles and stereotypical sexual scripts may be related to the perpetration of sexual violence (Giovannelli & Jackson, 2013; Lonsway & Fitzgerald, 1995; Glick & Fiske, 1997; Glick & Fiske, 1996). Some of the most prevalent research in this area is in masculine subcultures that perpetuate norms of hegemonic masculinity and femininity. Connell's (1987) concept of hegemonic masculinity

describes how cultural practices reinforce male dominance and power over women. Poteat et al. (2010) note that the research on how masculinity is constructed and expressed is lacking, but that "hostile masculinity," characterized by domination of women, has been associated with sexual aggression. Campus research on fraternities is one such example of the perpetuation of masculinity norms that not only reinforce hegemonic masculinity, but create cultural environments that allow for sexual assaults to occur and normalize sexually aggressive behavior (Humphrey, 2000).

The current literature on college men has revealed several common threads related to perpetration. Among these are the use of alcohol as a tool for perpetration, membership to groups that endorse sexually aggressive behavior, such as fraternities and sports teams, and individual attitudes about rape myths, male dominance, and sexually coercive behavior (Abbey et al., 1998; Copenhaver & Grauerolz, 1991). Research on group membership hypothesizes that men within groups who value male dominance are more comfortable using sexual coercion and aggression to obtain sex because they perceive that their peers are doing the same thing (Malamuth et al., 1991). Fraternity membership has been widely shown as one such area where group membership endorses behavioral norms that reinforce male dominance, objectify women, and promote sex as a conquest. The observed prevalence of victimization in fraternities and athletic teams is centered on attitudinal characteristics of such groups, such as rape-supportive attitudes (Humphrey, 2000). It is the attitudes about gender roles, masculinity norms, and rape myths that are tied to perpetration, not simply membership to the group. As one study noted, "The literature reveals that men who hold adversarial views about relationships between men and women, condone violence against women, accept stereotypical rape myths, or hold traditional attitudes about sex roles are more tolerant of rape and more likely to perpetuate sexual aggression than men who do

not share these beliefs" (Loh et al., 2005, p. 1327). Finally, rape myth acceptance has been correlated with heightened acceptance of sexual aggression by college men (Adams-Curtis & Forbes, 2004).

In addition to the correlation with sexual aggression, rape myth acceptance has been correlated with self-blame among victims. Furthermore, victims may not label their own experiences as rape, even when they fit into legal definitions, a phenomenon referred to as "unacknowledged rape" (Koss, 1985). For example, Peterson & Meuhlenhard (2004) found that women who endorsed the myth, "women who are a sexual tease deserve to be raped" were less likely to label themselves as victims, despite having experiences that met the legal definition of rape.

Rape myths are not only personal characteristics or opinions, they are and have been structurally and institutionally embedded. There are several clear examples of this. Until 2013, the FBI defined rape as, "The carnal knowledge of a female forcibly and against her will." The 2013 updated definition defines rape as, "Penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim" (Federal Bureau of Investigation, 2014). The construction of legal definitions has immense consequences for victims and perpetrators of crime. Limiting definitions, such as the first FBI definition, reinforce myths that only women can be raped, and that rape must involve overt force. As we know, the majority of rape and sexual assault crimes do not use overt force or violence, but instrumental violence (Lisak et al., 2010).

An example of a longstanding rape myth is that a person cannot be raped by their spouse. Marital, or spousal, rape was not criminalized in all fifty states until 1994 with the passage of the Violence Against Women Act, and spousal rape can no longer be considered a lesser crime

compared to stranger rape (United States Congress, 1994). Rape myths have functioned as a justification for men's sexual aggression, and as a way for society to exonerate perpetrators and blame victims (Bohner et al., 2009; Iconis, 2008). The acceptance and prevalence of rape myths impact how rape victims are treated by their peers, families, and the criminal justice system (Powers et al., 2015).

What are rape myths?

Lonsway and Fitzgerald (1994) discuss that there are three key components to myths in general. This first is that myths are "false beliefs the are widely held." Secondly, myths help to explain cultural phenomena. And lastly, myths "serve to justify existing cultural arrangements" (Lonsway & Fitzgerald, 1994, p. 134). Generally, myths carry connotations that are rooted in historical, religious, and cultural origins which essentially equate to mistaken beliefs, or stereotypes (Ryan, 2011).

The term "rape myth" was originally coined in the 1970's during the second wave feminist movement (Brownmiller, 1975). The first working definition of rape myths came from Martha Burt (1980), who defined rape myths as, "prejudicial, stereotypes, or false beliefs about rape, rape victims, and rapists" (p. 217). Burt argued that the effect of rape myths is that of denial of real victimization. As she said in 1991, "Rape myths are the mechanisms that people use to justify dismissing an incident of sexual assault from the category of 'real' rape...such beliefs deny the reality of many actual rapes" (p. 27).

There has been widespread debate and critique of Burt's initial definition. Lonsway and Fitzgerald (1994) argued that Burt's 1980 definition failed to operationalize complex concepts, such as prejudice. They go on to argue that a failure to establish a working definition has created a threat to validity in measurement of rape myth acceptance, a critique that influenced their 1999

construction of the IRMA and IRMA-SF. Their proposed definition of rape myths is, "attitudes and beliefs that are generally false but are widely and persistently held, and that serve to deny and justify male sexual aggression against women" (Lonsway & Fitzgerald, 1994, p. 134). A major critique of the above definitions asserts that it fails to recognize male sexual assault victims in its use of gendered language (Maxwell & Scott, 2014). In response, Maxwell and Scott (2014) use the definition, "widely held beliefs that tend to generalize, trivialize or even deny sexual assault" (taken from Franuik et al., 2008).

How are rape myths measured?

Rape myth acceptance is typically measured using survey instruments in cross-sectional research. For the most part, survey scales ask respondents to rate their agreement with a series of statements using a Likert scale. These questions can be described as a set of statements that are designed to reflect cultural stereotypes about rape, women, consent, and sexuality. As such, they are situationally located in time and cultural environment. The first survey measure, known as the Rape Myth Acceptance Scale, came from Burt's classic 1980 piece. In it, she used a 20-statement survey on a 7-point Likert scale. The measure uses statements such as, "A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex," and, "If a girl engages in necking or petting and she lets things get out of hand, it is her own fault if her partner forces sex on her" (Burt, 1980, p. 223).

Following Burt's classic work, several other measures were created. Lonsway & Fitzgerald (1994) provide a comprehensive overview of these measures, and their critique of these scales led to their creation of the Illinois Rape Myth Acceptance Scale (IRMA). Initially a 45-statement full measure and 17 statement short form, the IRMA was later revised by

McMahon and Farmer (2011) which is widely used to this day. Each of these measures can be viewed in Appendix A.

Critiques of RMA measurement

Measures relating to sexual assault are complex. The research on prevalence, perpetration, and attitudinal variables relating to sexual violence is diverse. Rape myth acceptance and other attitudinal scales are no different and face several critiques and threats to reliability and validity. As in any self-report measure, the social desirability effect is cause for concern. The social desirability effect is considered a common error in self-report surveys in which respondents answer according to how they think they will be perceived (Fisher, 1993). This creates a barrier to accuracy in survey research, as we cannot know whether respondents are answering honestly, or in line with what they think the researchers hope to see. This has been shown to be a problem even when respondents are anonymous to the researcher.

Critiques of measuring sexual assault and attitudes surrounding it cite linguistic concerns, gender neutrality, outdated language, and heterosexist bias as key problems historically. In their analysis of the Sexual Experiences Survey (Koss, Gidycz, & Wisniesweski, 1987), Koss and colleagues (2007) call for an updated version that uses behavioral specificity and gender-neutrality. They argue that behavioral specificity, rather than general terms such as "rape," are more likely to elicit honest responses and reduce mis-categorization by respondents. The Sexual Experiences Survey measures sexual assault perpetration and victimization by asking respondents to answer whether or not they have committed a series of acts in the past 12 months, or whether a series of acts have been committed against them. In it the survey uses terms and phrases such as, "without your consent," "rape," and "showing displeasure." Koss and Abbey

(2007) argue that the lack of specificity in these terms hinders accurate data collection as they do not have universal meaning, even among culturally similar groups, such as college students.

Several other studies note the problem of using the word "rape" in self-report surveys. The crux of this critique argues that, as a legal definition, rape is ever-changing. The example of the FBI definition underlies this point. That rape is differentially defined presents a threat to construct validity (Cronbach & Meehl, 1955). Perhaps more importantly, the legal definition of rape is not often known by respondents. Moreover, many respondents may have experiences they do not consider rape, but which meet the legal definition (Maxwell & Scott, 2014; Peterson & Muehlenhard, 2004). Several authors note the need for a standard definition of rape, not only in legal jargon, but among social scientists as well (Cook et al., 2011; Adams-Curtis & Forbes, 2004; Hamby & Koss, 2003). A proposed solution to the problematic term "rape" has been the use of behaviorally specific examples, rather than the use of terms that must be defined. For example, rather than using the phrase, "without your consent," measures should describe specifically what it would look like to decline to give or receive consent. Adams-Curtis and Forbes (2004) discuss how the term rape may be even more problematic when measuring college students because of social norms surrounding sexual behavior. Finally, the use of behaviorally specific questions reduces under and over reporting by not leaving terms up to the judgment of the respondent (Fisher, 2009).

The issue of gendered language and phrasing has also been critiqued in the literature. Many survey measures surrounding sexual assault place men in the role of sexual initiator (or aggressor) and women in the role of sexual respondent (or victim). Two key critiques arise from this trend. The first is that gendered language ignores male victims, and the second is that such questions inherently hold a heterosexist bias (Maxwell & Scott, 2014; Koss & Abbey, 2007).

Using in-depth interviews to examine how wording on sexual victimization surveys is interpreted and evaluated, Hamby and Koss (2003) found that respondents felt a sense of unfairness in gendered survey measures, noting that they dislike the perpetuation of sexist division, and furthermore that such questions let men off the hook for answering invasive questions about victimization (p. 252).

The key critiques discussed in the literature here serve as a backdrop to this thesis research and creation of a revised rape myth acceptance scale.

Chapter Three: Theoretical Framework

As the above examples show, words matter in survey design. The words employed and the phrasing of survey questions affect how participants respond. Furthermore, this research works on the assumption that rape myths are culturally distributed. By this understanding, they are learned assumptions within the culture that women and men alike come to understand. The re-wording of the uIRMA (McMahon & Farmer, 2011) in this research reflects the assumption that college students today are aware of the social (un)desirability of responding in agreement to a questionnaire that uses the word "rape." It was hypothesized that a re-working of the uIRMA wording would show a higher adherence to rape myth acceptance.

Rape myths have been associated with what are called "rape scripts." A script can be conceptualized as a prototype for understanding how events normally occur (Schank and Abelson, 1977), or, "an organized cognitive schema" (Gagnon, 1990, p. 6). As Ryan (2011) discusses, sexual scripts are culturally situated patterns of behavior and norms surrounding consent. Sexual scripts are culturally perpetuated and reinforced. An example might be mediareinforced sexual scripts that place men in the role of sexual initiator and women in the role of sexual gatekeeper. Rape scripts are defined as, "beliefs about the nature of rape (e.g., the location, weaponry, sex of perpetrators), the roles of the sexes in rape, boundaries of vulnerability to rape, and the disposition of victims" (Ryan, 2011; Crome & McCabe, 2001). As defined by Peterson & Muehlenhard (2004) rape scripts are, "an individual's impression of what typically occurs during a rape" (p. 130).

Research has shown that the typical rape script resembles a stranger assault, occurring at night where a woman is suddenly and violently attacked (Ryan, 1988). This is commonly referred to as the *real rape script* (Horvath & Brown, 2009). The real rape script constructs a

master offense for rape, in which women's fear is of a stranger assault, rather than an assault from an acquaintance, which is far more likely (Krebs et al., 2007). Among college students, 90% of rapes occur between people who know each other (Fisher et al., 2000). Research on women's fear consistently shows that women are more afraid of sexual assault in public rather than private spaces, where they are most likely to be victimized (Snedker, 2015). This arguably reflects how rape scripts, despite their lack of empirical support, serve to shape the way people interpret their safety and vulnerability.

Scripts are conceptualized as templates for understanding, not only in the context of sex, consent, and sexual assault, but in many other areas as well. In this way, rape scripts can be seen as a direct and problematic reflection of rape myths. The culturally embedded myths that most sexual assaults occur between strangers gives way to a script and master narrative that further detracts from evidence-based narratives and contributes to a dark figure of victimization (i.e. victimization that goes unreported). As Peterson & Muehlenhard (2004) explain, "Rape myths and stereotypic rape scripts reinforce each other: being exposed to stereotypic rape scripts strengthens rape myths, and being exposed to rape myths strengthens stereotypic rape scripts" (p. 130). Because rape has a constructed cultural understanding based on the above examples of rape scripts, there is a noted difficulty in accurately measuring rape myth acceptance. As will be discussed further, there is and can be a gap between common understanding of acts that constitute rape, based on rape scripts, and the realities of such acts. In this way, the wording of survey measures is instrumental to obtaining genuine perceptions and assumptions of rape myths.

The importance of word use and meaning in survey design is a matter of construct validity. An example of this can be seen in research regarding self-control and Grasmick et al.'s

(1993) self-control scale. One of the key critiques of this measure is that self-control is a concept that has not been properly operationalized in the past (Rocque et al., 2013; Piquero & Rosay, 1998). Furthermore, a key critique of the original scale from Grasmick et al. (1993) scale is that it typically measures perceptions held by men only, making it impossible to make comparisons (Piquero & Rosay, 1998). Similarly, it can be argued that the words used in the IRMA and uIRMA face a threat to construct validity, namely in their use of the word, "rape" and gendered phrasing limiting the role of victim to women and perpetrator to men. As Payne et al. (1999) note, rape myths are embedded in the culture, and as such are likely to be embodied by women and men alike. The importance of survey assessments of women and men is one component, but gender neutrality in the language of survey measures has also been noted as an important component of psychological measures, such as self-control and rape myth acceptance.

Research by Jones et al. (1998) argues that gender neutrality is a necessary component to measuring rape attitudes. Measures of attitudes toward rape and rape myth acceptance have utilized gendered language framing men as perpetrators and women as victims in large part because that is the reality of most assaultive situations, that men are likely to be perpetrators and women are likely to be victims (Koss et al., 2007). All forms of the IRMA to date use gendered language to frame men as perpetrators and women as victims. Payne et al. (1999) address this in their construction of the IRMA and IRMA-SF, noting that women are far more likely to be victimized by sexual violence than men, and that rape myths themselves focus on men's violence against women (p. 30-31). However, Jones et al. (1998) found that despite the "typical" roles occupied by women and men in sexual assault situations, these do not appear to affect gendered difference in terms of beliefs and attitudes about sexual assault.

In their construction of the IRMA and IRMA-SF, Payne et al. (1999) address several concerns over the wording of rape myth acceptance measures. The authors note that rape myth acceptance measures have fallen short of the following necessary measurement properties, "(1) a well-defined, theoretically based construct, (2) a clearly articulated domain of content, and (3) a comprehensive understanding of the domain structure" (p. 32). The authors note that rape myth scales all face limitations to constructs that are theoretically based, clearly articulated, and cover a full range and understanding of the concept.

Payne et al. (1999) further note the limitation of using colloquialisms, which vary by geographic location and culture, and may quickly become outdated, a key issue that was later addressed by McMahon & Farmer (2011). They make the point that the use of colloquialisms is a necessary component to measures related to sex and sexuality as our culture relies on them as a form of communication. How else might one describe the phrase "making out" on a survey measure than to use the colloquialism? Furthermore, they argue that the use colloquialisms would limit the need to use the word "rape" in every item. That said, the full version of the IRMA uses the words "rape" or "rapist" in 31 of the 45 items. It is clear that colloquialisms do little to serve in place of the word "rape," but may serve to describe sex acts in phrases such as, "making out," "slut," and "letting things get out of hand."

The issue of wording was a key critique of the IRMA by McMahon & Farmer (2011) when they set out to update it nearly ten years after its inception. Word choice is a vital and important factor in making survey items relevant to students. McMahon & Farmer (2011) argue that the wording of the IRMA was outdated to students in 2011, and that rape myths and the acceptance of them have become more subtle, not necessarily because of changing attitudes, but because of increased awareness about rape on college campuses. They describe this saying,

"With the proliferation of rape prevention programs over the past 10 years, it is possible that as a result, rape myths have continued to become more subtle. Failing to recognize these changes in our measurement of rape myths presents a major threat to the validity of the measure, and therefore, our evaluation of rape prevention programs as an intervention is not truly accurate" (p. 73). As such, they argue that students may choose to disagree with a statement because the wording is considered irrelevant. This argument was supported in focus groups leading up to their construction of the uIRMA. Participants indicated that they would disagree with phrases such as, "forces her to have sex," because it is socially unacceptable to agree with such phrases. Instead, the authors sought to use more subtle and applicable language. For example, the above phrase was replaced with, "assumes she wants to have sex" (p. 74).

Building on Payne et al.'s (1999) discussion of colloquialisms, McMahon & Farmer (2011) found several necessary differences in their focus groups. Two key changes came out of their investigation. First, participants indicated that the words "woman" and "man" were associated with older people, not college-aged students. Secondly, the researchers found that the concept of the "slut" was used in a range of victim-blaming statements. As a result, the questions adapted from the IRMA used the words "girl" and "guy" instead of "woman" and "man," and replaced certain phrases with the word "slut." For example, instead of using the phrase, "When women go around wearing low-cut tops or short skirts, they're just asking for trouble" (IRMA item #15, see Appendix A), the statement was reworded to say, "When girls go to parties wearing slutty clothes, they are asking for trouble." In addition to the 18 items McMahon & Farmer adapted from the original IRMA, four of their own statements were added to measure subtle victim blaming and the notion that rape can occur accidentally (see Appendix A for the full measure).

Since McMahon & Farmer's (2011) updated IRMA, there are even more educational and preventative programming efforts on college campuses. The past several years have seen increasing legislation from the federal government through the Jeanne Clery Act, the Violence Against Women Reauthorization Act, and Title IX. Based on the critiques of rape myth acceptance measures noted in the literature review, this proposal theorizes that the use of the word "rape" and the use of gendered roles in the uIRMA has the potential to affect social desirability and respondent answers.

While revised and updated in 2011, many of the IRMA's issues are still outstanding. This research sought to address these issue in two key ways. First, in order to address the differences in interpretation as to what is rape; the word "rape" was replaced with "sexual assault." Secondly, gendered phrasing placing men in the role of perpetrator and women in the role of victim was eliminated. The two primary hypotheses were that students would be more likely to agree with rape myth acceptance measures on a revised survey (referred to as the rIRMA) than the uIRMA, and that men would be more likely than women to agree with survey items.

As previously discussed, rape myth acceptance is an attitudinal measure that has been associated with heightened self-blame among victims, and a heightened propensity for perpetration among men. The use of an appropriate and relevant measurement tool is paramount to continued research in campus sexual violence and prevention efforts.

Chapter Four: Methodology & Hypotheses

The purpose of the current research was to examine whether language changes to the Updated Illinois Rape Myth Acceptance Scale (McMahon & Farmer, 2011) affect respondent's agreement with rape myths. Essentially, the aim was to examine whether the method of questioning creates differing results. The original uIRMA questions asks respondents to indicate their agreement with statements about women, specifically as victims, and their behavior. In the current research, half of the respondents received the original language of the uIRMA, while the other half received a revised version using gender-neutral language and the words "sexual assault" instead of rape (rIRMA; See Table 4.2). This technique was designed to address the argument that words make a difference in how respondents answer survey items. As stated above, widely held rape scripts mistakenly portray rape as occurring between strangers. There is widespread misconception over what constitutes rape—where, when, and to whom it happens. The use of "sexual assault" on the revised version was intended to provide a language structure that may have a broader script and understanding among respondents in an attempt to mitigate the social desirability effect.

The word "rape" has gained colloquial attention due to an increase in legislation on college campuses and increasing social awareness. Such attention is important to invoking social change, but in terms of measuring attitudes, we do not know whether or not respondents answer based on what they think the "right" answer is, or based on their actual attitudes and beliefs. As such, the word "rape" was replaced with "sexual assault" in the revised version. In line with the research discussed above, it was hypothesized that "sexual assault" would evoke responses that are closer to actual attitudes than the term rape, in part because many people do not know what constitutes a "rape." Many victims falsely label their own experiences as something other than

rape, when in fact they meet the legal definition. These "unacknowledged rapes" are another reflection of rape scripts (Peterson & Meuhlenhard, 2004).

Furthermore, the language of the uIRMA is gendered in its wording. It portrays women as victims and men as perpetrators throughout. This is problematic because it reinforces stereotypes that are changing within the culture, and may run the risk of perpetuating the social desirability effect (Lonsway & Fitzgerald, 1995). It is important to note that the terms relating to gender (woman/man) and sex (female/male) will be used interchangeably throughout this piece. This is not intended to deny the difference between sex, a biological characteristic, and gender, a social construction, but rather for simplicity's sake.

Research Questions and Hypotheses:

Based on the above discussion, prior literature, and theoretical considerations, the following hypotheses were examined:

Hypothesis 1: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on measures of rape myth acceptance, meaning they will be more likely to agree with rape myth statements than those who completed the uIRMA. It is hypothesized that the two key changes to the uIRMA will produce heightened RMA in the rIRMA: the use gender neutral terms, and the elimination of the word "rape."

1a: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "She Asked for It" than those who completed the uIRMA

1b: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "He Didn't Mean To" than those who completed the uIRMA

1c: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "It Wasn't Really Rape" than those who completed the uIRMA

Hypothesis 2: Men will show greater support of rape myth acceptance measures than women in both the original (uIRMA) and revised versions (rIRMA) of the survey. This is

rooted in several findings showing that men score higher than women on RMA measures (Suarez & Gadalla, 2010; McMahon, 2005; Whatley, 1996).

- 2a. Men will show greater support of rape myth acceptance measures for the subscale of "She Asked for It" when compared to women in both the original and revised versions of the survey.
- 2b. Men will show greater support of rape myth acceptance measures for the subscale of "He Didn't Mean To" when compared to women in both the original and revised versions of the survey.
- 2c. Men will show greater support of rape myth acceptance measures for the subscale of "It Wasn't Really Rape" when compared to women in both the original and revised versions of the survey.

Participants and Sampling Procedure:

Using cross-sectional survey design, the data were collected in September, 2016. The two versions of the survey, the uIRMA and rIRMA, were attached to the pretest survey of the Bystander Intervention Evaluation research conducted by Dr. Christine Arazan at Northern Arizona University. This survey used classical experimental design to evaluate the efficacy of the Bystander Intervention program at Northern Arizona University (NAU). The research participants were undergraduate students enrolled in a First-Year seminar course titled, "NAU100," of which there were 81 sections. Eight hundred fifty-two (N=852; 54.5 percent) female and 712 (45.5 percent) male students enrolled in the "NAU100" course offered as a traditional, in-person class during the fall 2016 semester. All incoming freshman are encouraged to enroll in the NAU100 course that is designed to educate first-year students on strategies for college success. The sampling frame included all students registered for the course in the fall 2016.

Table 4.1: Sample Comparison Demographics

Flagstaff		
First-Time,		
Full-Time	NAU100:	Sample:

Freshmen:					
Mean Age		18.41	18.41		
Mean GPA		2.99	2.96		
% Female	62.6	54.5	55.6		
IPEDS Ethnicity					
% American Indian /					
Alaska Native	2.0	2.5	2.4		
% Asian American	1.9	2.5	2.6		
% Black / African					
American	3.2	4.3	4.4		
% Hispanic / Latino	23.8	32.0	31.5		
% International	2.4	0.2	0.2		
% Native Hawaiian /					
Other Pacific Island	0.4	0.4	0.4		
% Not Specified	1.2	1.3	1.2		
% Two or More	6.6	8.2	8.1		
% White	58.5	48.7	47.9		
N=	4947	1564	1367		

The units of analysis were the individuals participating. This unit of analysis was used in part because of its convenience and accessibility, but also because individual college students are arguably the most suitable unit for measuring attitudes and beliefs of college students. The software program Select Survey was used to administer the surveys electronically. Confidentiality was maintained throughout the process.

Study Design:

Participants were randomly assigned to each of the surveys by using date of birth as a sorting variable. Respondents were asked: "If your birthday is an odd number, click 1. If your birthday is an even number, click 2. (for example, March 23 is odd so click 1; March 24 is even so click 2)." Those who selected the odd number (n=670) were assigned to complete the uIRMA. Those who selected the even number (n=714) were assigned to complete the rIRMA.

Figure 4.1: Research Design-Classical Experimental Design

				Stimulus: Survey	Posttest: Measurements
Sample:	Random Assignment	<i>→</i>	Experimental Group	rIRMA	Subscale 1: She Asked for It
Students	via birthday	_	Огоцр		Subscale 2: He Didn't Mean To
		_	Control Group	uIRMA	Subscale 3: It Wasn't Really Rape
					Overall Mean Value

Measurements:

The independent variable, or stimulus, is the language changes to the uIRMA, or more specifically, the version of the rape myth acceptance scale (uIRMA, rIRMA) the respondent was randomly assigned to complete. As discussed, two key changes were made to the uIRMA: the replacement of the word "rape" with "sexual assault," and the use of gender-neutrality.

Table 4.2: Comparison of uIRMA and rIRMA Statements

Updated Illinois Rape Myth Acceptance Scale Items: uIRMA (McMahon & Farmer, 2011)		Revised Version of the Updated Illinois Rape Myth Acceptance Scale: rIRMA		
1.	Subscale 1: She Asked for It If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.	1.	Subscale 1: She Asked for It If a person is sexually assaulted while they are drunk, they are at least somewhat responsible for letting things get out of hand.	
2.	When girls go to parties wearing slutty clothes, they are asking for trouble.	2.	When people go to parties wearing revealing clothes, they are asking for trouble.	
3.	If a girl goes to a room alone with a guy at party, it is her own fault is she is raped.	3.	If a person goes to a room alone with someone at a party, it their own fault if they are sexually assaulted.	
4.	If a girl acts like a slut, eventually she is going to get into trouble.	4.	If a person acts like a slut, eventually they are going to get into trouble.	

- 5. When girls get raped, it's often because the way they said "no" was unclear.
- 6. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.

Subscale 2: He Didn't Mean To

- 7. When guys rape, it is usually because of their strong desire for sex.
- 8. Guy don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.
- 9. Rape happens when a guy's sex drive goes out of control.
- 10. If a guy is drunk, he might rape someone unintentionally.
- 11. It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.
- 12. If both people are drunk, it can't be rape.

Subscale 3: It Wasn't Really Rape

- 13. If a girl doesn't physically resist sex—even if protesting verbally—it can't be considered rape.
- 14. If a girl doesn't physically fight back, you can't really say it was rape.
- 15. A rape probably doesn't happen if a girl doesn't have any bruises or marks.
- 16. If the accused "rapist" doesn't have a weapon, you really can't call it rape.
- 17. If a girl doesn't say "no" she can't claim rape.

- 5. When a person is sexually assaulted, it's often because the way they said "no" was unclear.
- 6. If a person initiates kissing or hooking up, they should not be surprised if the other person assumes they want to have sex.

Subscale 2: He Didn't Mean To

- 7. When people sexually assault others, it is usually because of their strong desire for sex.
- 8. People don't usually intend to force sex on others, but sometimes they get to sexually carried away.
- 9. Sexual assault happens when a person's sex drive goes out of control.
- 10. If a person is drunk, they might sexually assault someone unintentionally.
- 11. If shouldn't be considered sexual assault is person is drunk and didn't realize what they were doing.
- 12. If both people are drunk, it can't be sexual assault.

Subscale 3: It Wasn't Really Rape

- 13. If a person doesn't physically resist sex—even if protesting verbally—it can't be considered sexual assault.
- 14. If a person doesn't physically fight back, you can't really say it was sexual assault.
- 15. A sexual assault probably doesn't happen if a person doesn't have any bruises or marks.
- 16. If the accused doesn't have a weapon, you can't really call it sexual assault.
- 17. If a person doesn't say "no" they can't claim a sexual assault occurred.

Subscale 4: She Lied

- 18. A lot of times, girls who say they were raped agreed to have sex and then regret it.
- 19. Rape accusations are often used as a way of getting back at guys.
- 20. A lot of times, girls who say they were raped often led the guy on and then had regrets.
- 21. A lot of times, girls who claim they were raped have emotional problems.
- 22. Girls who are caught cheating on their boyfriends sometimes claim it was rape.

The dependent variable is rape myth acceptance, as indicated by the level agreement with the items on each of the survey versions on a Likert Scale. The uIRMA uses a five point Likert scale (1=strongly agree, 5=strongly disagree) to measure rape myth acceptance for 22 statements (McMahon & Farmer, 2011). It is important to note that a methodological decision was made to use a six point Likert scale (0-5), rather than a five point (1-5) to avoid fence-sitting and to adjust the scale to include a "0" category, as forcing individuals to support even with a "1" value may create discomfort and result in student respondents skipping an entire section as they feel a 0 value (of NONE) most accurately reflects their position on these statements. Additionally, the uIRMA (McMahon & Farmer, 2011) uses 22 items and four subscales (she asked for it, he didn't mean to, it wasn't really rape, and she lied) to measure rape myth acceptance. The first 17 items were derived from Payne et al.'s 1999 IRMA. The final items of the uIRMA, comprising the final subscale, "she lied," were added separately from the IRMA items in response to focus group data obtained to create the uIRMA. In order to evaluate consistency across the measures,

this research used only the first 17 items and the three subscales of the uIRMA (she asked for it, he didn't mean to, it wasn't really rape).

In addition to the primary hypothesis, it was hypothesized that men will show greater support of rape myth acceptance measures than women in both the original and revised versions of the survey. While men and women both be exposed to and adopt rape myths within the culture, men show a tendency to score higher on rape myth acceptance scales (Suarez & Gadalla, 2010; Payne et al., 1999). As prior literature consistently shows that sex is a key predictor of rape myth acceptance, the results were examined by the sex of the respondent.

Table 4.3: Coding and Descriptive Statistics for Key Measurements

Variable:	Source:	Coding:	Descriptives:
Gender	Institutional	1=female	n=760 (54.9%)
	Database	0=male	n=607 (43.8%)
Group	Survey	1=rIRMA	n=715 (48.4%)
		0=uIRMA	n=670 (51.6%)
Subscale 1:	Survey	Mean Value Statements 1-6	n=1384
She Asked for It			Mean=6.41
			SD=6.36
			Min.=00
			Max=30
Subscale 2:	Survey	Mean Value Statements 7-12	n=1384
He Didn't Mean To	,		Mean=9.12
			SD=6.05
			Min.=00
			Max=30
Subscale 3:	Survey	Mean Value Statements 13-17	n=1384
It Wasn't Really	,		Mean=2.11
Rape			SD=3.53
·			Min.=00
			Max=25
Overall Mean Value	Survey	Mean Value Statements 1-17	n=1384
			Mean=17.71

Analysis:

ANOVAS were run to test for between group differences. Simple one-way ANOVAS were used to analyze the data when a single independent variable was examined. Specifically, one-way ANOVAS were run to answer the below hypotheses as they examine the differences between survey groups (rIRMA vs. uIRMA) on the subscales and the mean value of the 17 statements:

Hypothesis 1: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on measures of rape myth acceptance, meaning they will be more likely to agree with rape myth statements than those who completed the uIRMA.

1a: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "She Asked for It" than those who completed the uIRMA

1b: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "He Didn't Mean To" than those who completed the uIRMA

1c: Respondents who take the revised version of the uIRMA (referred to as the rIRMA) will score higher on the subscale of "It Wasn't Really Rape" than those who completed the uIRMA

However, in order to examine the influence of more than one independent variable on the subscale scores and the mean of the 17 items, a factorial design was used and two-way independent ANOVAs run to assess whether the two independent variables, survey group (rIRMA vs. uIRMA) and sex, are significantly different for the three subscales and the mean for the 17 items. The two-way independent ANOVAs allow us to test the below hypotheses:

Hypothesis 2: Men will show greater support of rape myth acceptance measures than women in both the original (uIRMA) and revised versions (rIRMA) of the survey.

- 2a. Men will show greater support of rape myth acceptance measures for the subscale of "She Asked for It" when compared to women in both the original and revised versions of the survey.
- 2b. Men will show greater support of rape myth acceptance measures for the subscale of "He Didn't Mean To" when compared to women in both the original and revised versions of the survey.
- 2c. Men will show greater support of rape myth acceptance measures for the subscale of "It Wasn't Really Rape" when compared to women in both the original and revised versions of the survey.

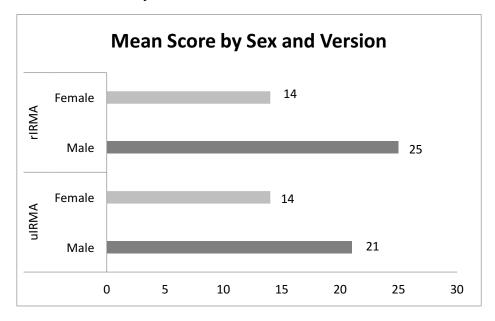
As both of the independent, or grouping variables, were dummy coded it was not necessary to run any post hoc tests to determine differences between levels of the independent variables. Any significant effects reflect the difference between the categories of the independent variable; for example between males and females or between uIRMA and rIRMA.

Chapter Five: Findings and Results

The purpose of this research was to establish whether wording changes to the uIRMA would affect student responses. The primary hypothesis asserted that a revised version of the Update Illinois Rape Myth Acceptance Scale (uIRMA), eliminating the word rape and using gender-neutral phrasing, would elicit heightened acceptance of rape myth items. The primary hypothesis was supported: Students who took the rIRMA showed heightened acceptance of rape myth acceptance items compared to those who took the uIRMA. Furthermore, the data indicate that males showed a heightened acceptance of rape myths compared to females. The difference between the surveys (uIRMA vs. rIRMA) for male respondents alone was large enough to influence the entirety of the difference between the groups.

The differences in gender show that men are the driving force behind the significant differences between the uIRMA and rIRMA. Figure 5.1, below, shows that the mean score for females was not significantly different between the two surveys, however, there is a significant difference between the means for males, significant enough to account for the entire effect of the survey differences on rape myth acceptance (see Table 5.1). This finding is consistent with prior rape myth acceptance research. With few exceptions, most rape myth acceptance studies show that men are significantly more likely than women to agree with rape myth acceptance items (Suarez & Gadalla, 2010; Whatley, 1996).

Figure 5.1: Mean Scores by Sex and Version



To measure the difference between rape myth acceptance on the uIRMA and rIRMA, a one-way analysis of variance (ANOVA) was conducted to examine the overall relationship. One-way ANOVA is a bivariate analysis used to assess differences between groups (i.e. uIRMA vs. rIRMA) on a single dependent variable (rape myth acceptance) (Hair et al., 1998). This method was chosen to measure the effect of each version of the scale on the dependent variable, rape myth acceptance as measured by the (1) overall mean of the 17 items, (2) Subscale 1: She Asked for It (3) Subscale 2: He Didn't Mean To and (4) Subscale 3: It Wasn't Really Rape. The data show that respondents were more likely to answer in agreement to the revised IRMA (rIRMA) than the updated IRMA (uIRMA). The same technique was used to examine whether there is a difference between the groups for each of the three subscales: she asked for it, he didn't mean to, and it wasn't really rape and results indicate that two out of the three subscales (specifically, subscales 1 and 3) were significantly different between the versions of the survey. There were no

statistically significant differences between the groups on the two versions of the survey for Subscale 2, he didn't mean to.

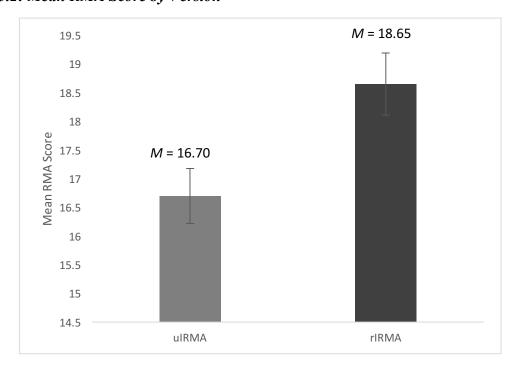
As Table 5.1 and Figure 5.2 show, results from the overall ANOVA show a positive significant difference between the survey groups (p < .01). This indicates overall that respondents who received the rIRMA were significantly more likely to agree with survey statements than those who received the uIRMA. These findings are in support of the overall primary hypothesis (H_1) that respondents who received the revised version of the uIRMA (referred to as the rIRMA) would score higher on rape myth acceptance measures.

Table 5.1: Analysis of Variance: Overall uIRMA and rIRMA

Source	df	SS	MS	F
Between groups	1	1320.07	1320.07	7.16**
Within group	1382	254645.66	184.26	
Total	1383	255965.72		

^{*}p < .05. **p < .01. ***p < .001

Figure 5.2: Mean RMA Score by Version



To assess the second hypothesis, that men would be more likely to accept rape myths than women, a two-way analysis of variance was used to test the difference between the surveys by treating gender as an additional independent variable to examine whether a difference exists between men and women and the version of the survey they receive. Hypothesis 2 predicted that males agree more with rape myth acceptance items than females. As Table 5.2 shows, males were significantly more likely than females to agree with rape myth acceptance items.

Additionally, the data show an even more pronounced difference between males and females on the rIRMA (p = .002). This is consistent with research showing that men are more likely to accept rape myths in general (McMahon, 2005). Gender has been argued to be the strongest predictor of rape myth acceptance across a multitude of studies (Suarez & Gadalla, 2010). As hypothesized, the findings indicate that men showed higher agreement of the items on both the original (uIRMA) and revised version (rIRMA), but significantly more so on the revised (a mean of 25 on the rIRMA versus 21 on the uIRMA).

Table 5.2: Summary of Two-Way Analysis of Variance for Sex and RMA

Source	df	Type III SS	MS	F
Sex	1	27965.59	27965.57	173.91***
Group (uIRMA*rIRMA)	1	1577.12	1577.12	9.81**
Sex*Group	1	1615.92	1615.92	10.05**

^{*}p < .05. **p < .01. ***p < .001

One-way ANOVAs were also run to examine each of the three subscales: she asked for it, he didn't mean to, and it wasn't really rape.

Hypothesis 1a predicted that respondents on the rIRMA would score higher than those on the uIRMA for the subscale, "she asked for it." Table 5.3 shows a strong significant effect for the subscale "she asked for it" (p < .001), meaning, as predicted, that respondents were significantly

more likely to agree with these items on the rIRMA than the uIRMA. This subscale is made up of items one through six on both surveys (See appendix A for the full scales).

Table 5.3: Analysis of Variance for Subscale: She Asked for It (Items 1-6)

Source	df	SS	MS	F
Between groups	1	647.45	647.45	16.2***
Within group	1382	55242.34	39.97	
Total	1383	55889.79		

^{*}p < .05. **p < .01. ***p < .001

Hypothesis 1b again predicted that rIRMA respondents would show higher rape myth acceptance than uIRMA repondents. However, as Table 5.4 shows, this hypothesis was not supported. There was no significant effect on RMA in the subscale, "He didn't mean to," as shown in Table 5.4 (p = 0.78). This subscale consisted of items seven through twelve. This means that there was no significant difference between the surveys.

Table 5.4: Analysis of Variance for subscale: He Didn't Mean To (Items 7-12)

Source	df	SS	MS	F
Between groups	1	3.21	3.21	.09
Within group	1382	50569.81	36.59	
Total	1383	50573.02		

p < .05. *p < .01. **p < .001

Regarding the final subscale, "It wasn't really rape," hypothesis 1c predicted that respondents would score higher on the rIRMA than the uIRMA. As depicted in Table 5.5, this hypothesis was supported and a significant effect was found (p < .01). This shows that respondents who received the rIRMA were significantly more likely than those who received the uIRMA to agree with rape myth statements within this subscale, comprised of the final give items of the surveys (numbers 13-17).

Table 5.5: Analysis of Variance for Subscale: It Wasn't Really Rape (Items 13-17)

Source	df	SS	MS	F
Between groups	1	82.73	82.73	6.66**
Within group	1382	17177.80	12.43	
Total	1383	17260.53		

^{*}p < .05. **p < .01. ***p < .001

Two-way ANOVAs were also examined to evaluate the combined effect of gender and survey version on rape myth acceptance for each of the three subscales. Hypothesis 2a predicted that men would show greater support of rape myth acceptance measures for Subscale 1: "She Asked for It" when compared to women in both the original and revised versions of the survey. This hypothesis was supported, as shown in Table 5.6.

Table 5.6: Summary of Two-Way Analysis of Variance for Sex and Subscale: She Asked for it (Items 1-6)

Source	df	SS	MS	F
Sex	1	5315.917	5315.92	149.16***
Group(uIRMA*rIRMA)	1	735.21	735.21	20.63***
Sex*Group	1	318.20	318.20	8.93**

^{*}p < .05. **p < .01. ***p < .001

Regarding the second subscale, "He didn't mean to," hypothesis 2b predicted that men would be more likely than women to agree with survey statements on both versions of the survey. As Table 5.7 shows, this hypothesis was not supported. While there was a significant difference between males and females overall, this data indicate that no significant difference was found between the versions of the survey for this particular subscale.

Table 5.7: Summary of Two-Way Analysis of Variance for Sex and Subscale: He Didn't Mean to (Items 7-12)

Source	df	SS	MS	F
Sex	1	4089.88	4089.88	123.10***
Group(uIRMA*rIRMA)	1	9.19	9.19	0.28
Sex*Group	1	212.69	212.69	6.40**

p < .05. *p < .01. **p < .001

Hypothesis 2c predicted that men would show greater support of rape myth acceptance measures for the subscale of "It Wasn't Really Rape" when compared to women in both the original and revised versions of the survey. This hypothesis was supported. The data in Table 5.8 show that men were more likely to answer in support of myth within this subscale.

Table 5.8: Summary of Two-Way Analysis of Variance for Sex and Subscale: It Wasn't Really Rape

Source	df	SS	MS	F
Sex (Male)	1	922.12	922.13	79.26***
Group(uIRMA*rIRMA)	1	91.54	91.54	7.87**
Sex*Group	1	60.47	60.47	5.20*

^{*}p < .05. **p < .01. ***p < .001

Appendix B, Table 1 provides a frequency table showing the mean score on each item of the uIRMA and rIRMA. Appendix B, Table 2 depicts the same information divided by gender. Based on the above findings, I reject the null hypothesis that no relationship exists between wording changes to the uIRMA, and find instead that there is a significant, positive difference in response between the uIRMA and rIRMA.

Chapter Six: Discussion and Future Research

Discussion

As expected, both primary hypotheses were supported: respondents were significantly more likely to agree with rape myth acceptance statements on the rIRMA than the uIRMA, and men were significantly more likely than women to agree with survey statements. Moreover, the difference in men's responses between the survey measures was enough to account for the entire difference between the groups. In other words, had women alone been surveyed there would be no significant difference. This is consistent with the literature, showing that men consistently score higher than women on measures of rape myth acceptance, hostility toward women, and other psychometric scales (Payne et al., 1999).

The results regarding the subscales were not as straight forward. It was hypothesized that there would be a heightened acceptance of rape myths for each of the three subscales on the uIRMA, and that men would show greater support for each of the subscales than women. While the first and third subscales ("She Asked for It" and "It Wasn't Really Rape") were in support of the hypotheses, there was no significant difference between the groups for the second subscale, "He Didn't Mean To." This subscale, made up of items 7-12, revolves around the sexual script that men cannot control their sexuality, a myth often rooted in false biological excuses (Ryan et al., 2011). This could simply be an abnormality within the population, or it may reflect a changing cultural understanding, perhaps holding men to different standard of sexual responsibility. However, it is also likely that the wording of the test scale (uIRMA), eliminates the myth it was intended to measure ("He didn't mean to"). For example, the first item of this subscale in the uIRMA states, "When guys rape, it is usually because of their strong desire for sex." In the rIRMA, the item is changed to say, "When people sexually assault others, it is

usually because of their strong desire for sex." The myth that men cannot help themselves sexually relies on gendered language. It may be that uIRMA respondents did not show a significant difference from rIRMA respondents because the subscale does not accurately represent any myth they can recognize (there is no gender-neutral myth that people in general perpetrate because of a sex drive they cannot control). Essentially, for this particular subscale, rape myth acceptance is dependent on the gendered phrasing of the items.

Finally, it is important to note that while respondents were significantly more likely to agree with rape myth acceptance items on the rIRMA than the uIRMA, they were still skewed toward the "disagree" side of the spectrum (see Appendix B, Table 1 for frequencies). As the frequency table shows, there were no items in which students responded in "agreement" with rape myths. There is no clear way to interpret this, but this finding does beg the question, why? Research has shown that attitudes regarding rape, including rape myth acceptance, do not change very suddenly (Suarez & Gadalla, 2010; Rozee & Koss, 2001). Given that this sample of students were in their first month at college, it is unlikely that campus educational efforts can be assessed as a mitigating factor in their attitudes. An optimistic interpretation might assert that these students disagreed with rape myth acceptance items because of changing culture outside of the campus environment that is affecting attitudes of incoming students. However, it may simply be that incoming first-year students, like their college peers, are familiar enough already with the subject to know that answering "agree" to a rape myth acceptance item is socially undesirable. Of course, any conclusions drawn from these observations are speculative. Further research can help to answer the questions resulting from these findings.

Future Research

The measurement of sexual victimization, perpetration, and the attitudinal characteristics surrounding it face many challenges to accurate data collection. Regarding this study, a clear improvement would use either a longitudinal design to measure changes in rape myth acceptance over time by surveying the same population at multiple points during their college career. Or, alternatively, sampling students as incoming freshmen and as seniors would allow us to establish the factors that may influence rape myth acceptance. The findings presented here do not allow us to infer what social and contextual factors may be affecting rape myth acceptance. Does the college environment increase the acceptance of rape myths, or work as a preventative factor? Along these lines, additional research would benefit from comparing the two scales between different campuses. Sampling from a wider frame of students would clearly increase the strength of this research.

Regarding the measurement of rape myth acceptance and other attitudinal characteristics that may influence gender-based violence, there are many ways this research can be expanded and improved. As this field of inquiry continues to advance, several promising trends are clear, among them, the use of behaviorally specific survey items. Since the 1980s, the use of behaviorally specific measures has been a growing trend (Koss et al., 1987; Koss & Gidyz, 1985; Koss & Oros, 1982; Russel, 1982). Koss and colleagues' groundbreaking work with the Sexual Experiences Survey (SES) (1982, 1987, 2007), promoted the use of behavioral specificity in survey research. This practice has increasingly been considered the most accurate and promising way to measure victimization. As was briefly discussed in the literature review, behavioral specificity refers to the use of terms and phrases that do not require the respondent to correctly

interpret their meaning. As Fisher & Cullen (2000) describe, "A 'behaviorally specific' question is one that does not ask simply if a respondent 'had been raped' but rather describes a victimization incident in graphic language that covers the elements of a criminal offense" (p. 337).

In recent work, the use of behavioral specificity has become a standard practice and is seen as the most accurate way to measure victimization both at the campus level and in national measures, such as the National Crime Victimization Survey (NCVS) (Krebs et al., 2016; Fisher & Cullen, 2000). In campus climate surveys, behavioral specificity has been cited as a best practice, both by researchers and the White House Task Force to Protect Students from Sexual Assault (Krebs et al., 2016; https://www.notalone.gov/assets/ovw-climate-survey.pdf). Fisher & Cullen (2000), summarizing decades of sexual victimization measurements, note that behaviorally specific questions are more likely to elicit accurate responses, and as a result show heightened victimization rates compared to measures simply asking whether a respondent has been raped. Behaviorally specific questions show greater disclosure rates by respondents for several reasons noted in the literature (French et al., 2016; Fisher & Cullen, 2000; Russel, 1982):

- 1. Behavioral specificity increases the likelihood that respondents will be cued to recall events that may have happened to them, and to recall them accurately.
- 2. It is less likely that respondents will mis-categorize or "read into" victimization terms such a "rape" and "sexual assault," as the measure will either define terms (such as in the Sexual Experiences Survey), or will use explicit language to describe the measure.
- 3. It allows researchers to measure the wide spectrum of non-physical tactics and coercive tactics that may occur during or preceding a sexual assault. In other words, rather than simply measuring physical force and completed rape, surveys are capturing data on

manipulation, verbal pressure, substance use, and aggression tactics used by perpetrators (see French et al., 2016).

Behaviorally specific questions assess a continuum of sexually aggressive and/or criminal behaviors. As Koss & Oros (1982) discuss, sexual victimization should not be viewed simply as rape, but rather with a "dimensional view," in which rape is one extreme of a continuum (p. 455). Critics of this technique argue that behaviorally specific measures may exaggerate reports of rape and sexual coercion (Gilbert, 1997), however, more recent research finds little to indicate that such techniques inflate sexual victimization prevalence findings (Krebs et al., 2011). Moreover, there have been several divisive debates among scholars regarding accurate measurement and the many challenges associated with it. But as Fisher & Cullen (2000) so accurately state, "The aim is not to seek methodologies that produce higher or lower estimates of sexual victimizations but, rather, to develop measures that are the most accurate possible" (p. 377).

Rape myth acceptance measures have shown to be an important and potentially predictive factor of sexual victimization. However, this project has illuminated some of the immense difficulties surrounding accurate measurement. Building on the central argument to this thesis project, that words matter in survey design, the next logical step to measuring rape myth acceptance is to incorporate behaviorally specific survey items. Rather than adjusting or trying to improve upon an existing scale, such as the IRMA and uIRMA, the creation of a new scale, using behaviorally specific items to measure rape myth acceptance may help to eliminate many of the threats to validity discussed above. Behaviorally specific items measuring rape myth acceptance would be an enormous departure from RMA measures to date, however, the use of such a scale may help improve the accuracy of RMA measures. While the use of graphic and

direct language in an RMA measure may run the risk of causing discomfort, such a tool would be an invaluable addition to the trending research in victimization and its measurement, and would address several of the limitations of this study.

Furthermore, and as has already been discussed, rape myths are culturally held beliefs and norms that are learned in our institutions: the family, education, religion, media, and so on. Because of this, it is likely that by the time students reach college they have already learned such myths. Future research into rape myth acceptance would benefit from expanding beyond college students to primary school children to understand how rape myths are learned.

Chapter 7: Conclusion

This research has attempted to assess how the use of word changes to a commonly used rape myth acceptance scale affect whether or not respondents agree with survey items. To evaluate this, two key changes were made to McMahon and Farmer's (2011) uIRMA:

- 1. The word "rape" was replaced with "sexual assault" to address potential social (un)desirability issues surrounding the word "rape."
- 2. Survey items using gendered phrasing were replaced with neutral phrasing that did not assign a gender to the role of perpetrator or victim.

It was hypothesized that students given the altered survey (rIRMA) would score higher than those who received the uIRMA. Furthermore, in line with the prior literature, it was predicted that men would score higher than women on both the uIRMA and rIRMA, but more so on the rIRMA. As predicted, respondents expressed a heightened acceptance of rape myths on the test scale (rIRMA). More specifically, men's responses accounted for all of the difference between the two groups. Had women alone been measured, there would have been no difference in the responses to the uIRMA and rIRMA.

There were several noted limitations to this study. While this research was intended to address many of the validity concerns of the uIRMA, it may be that this research faces the same critiques it has sought to address. The rIRMA was intended to provide a more neutral instrument to assess respondent attitudes, however, this method may simply have expanded the concept and diluted the ability to draw any real conclusions. Moreover, although there was a significant difference between the two groups, it is important to note that responses were still largely skewed in disagreement of the items.

Social desirability, or un-desirability, is an important methodological consideration in any survey design. It refers to the willingness of respondents to answer honestly and accurately depending on their perception of what is appropriate or expected socially, or their perception of how their responses might be tied to them. For sensitive topic areas, social desirability is an especially important consideration and potential limitation.

Tourangeau, Rips, and Rasinski (2000) identified three factors that influence the willingness of respondents to answer honestly in a psychometric measure: the social desirability, or undesirability of their answer, the intrusiveness of the question(s), and whether respondents believe that their answers may be disclosed to a third party, perhaps forcing them to make a formal report.

The use of the term "sexual assault" instead of "rape" was intended to help address the potential intrusiveness of the uIRMA wording, and to capture a broader basis of potential rape myths, addressing the concern that rape is a concept commonly misunderstood by college students, and furthermore, that the word choice of the uIRMA obscures the influence of rape myth acceptance as the term "rape" may lead to the suppression of honest results. This "watering down" of concepts operates under the assumption that rape myths are an important and real element surrounding campus sexual assault. However, it is possible that the term "sexual assault" is equally as triggering to respondents as "rape." While "rape" arguably elicits negative connotations and stereotypes, the term "sexual assault" may evoke similar sentiments. As such, an individual may perceive an action as less serious or 'not a big deal' but adjust their responses because the phrase 'sexual assault' serves as a warning that the item is socially undesirable.

It is important to note that sexual assault and rape are concepts that are socially constructed. This further complicates the measurement of rape myth acceptance. The use of legal definitions in research attempt to create an objective reality surrounding victimization, perpetration, and related attitudinal and behavioral factors. However, as Fisher & Cullen (2000) note, "How people construct reality is best seen as a potential source of measurement error, confounding how they might answer a victimization survey. The methodological task, then, is to puncture socially constructed realities and to find out 'what really happened' by developing carefully worded questions that are immune to differential interpretations by respondents" (p. 382). Arguably this research ultimately faces many of the same limitations it has sought to address. While the word changes and use of gender-neutrality have shown an increase in rape myth acceptance compared to the original wording of the uIRMA, there may be other factors affecting the results. Specifically, the use of "sexual assault" instead of "rape," while intended to ease a socially un-desirability of the term, may simply confuse the meaning to respondents. In other words, rather than more accurately capturing rape myth acceptance, we may have merely broadened the concept, which clouds the ability to draw conclusions from these results. Expanding the concept may instead capture incidents that would not meet the definition of sexual assault because, similar to the concept of rape, students do not have a working understanding of what qualifies as "sexual assault."

Because this is the first time the rIRMA is being employed, the results are obviously not generalizability to any other populations. There is no other forum using the rIRMA to which these findings can be compared against or externally validated. Furthermore, this limitation means that the results cannot be generalized to other college campuses or populations. There is an additional threat to generalizability given the study's sampling frame that is limited to only

those freshmen who were registered for NAU100 in the fall of 2016 and completed the survey as part of a class assignment for credit.

Future research can continue to establish measures which are accurate and relevant to campus populations. An important and necessary extension might be to create a new rape myth acceptance measure using behaviorally specific items and test it against a classic RMA scale such as the IRMA. A simple addition to the literature might be to re-apply McMahon & Farmer's (2011) work by beginning with focus groups to establish the kinds of terms and phrases that are relevant to students today. Such work could also assess the social desirability of measures by simply asking students what they think of rape myth acceptance surveys as a tool, and whether they believe such attitudes are expressed in the campus environment.

While the findings presented here are a small contribution, they are an important step in the construction of rape myth acceptance measures that are accurate and methodologically sound. The implications of this research are important to the work of identifying attitudinal characteristics which may predict perpetration and victim self-blame.

Furthermore, these findings add to a growing body of work that recognizes sexual violence on campuses as a phenomenon that does not occur in isolation, but rather, within a complex web of attitudes, norms, and actions that precipitate sexual violence. The acceptance of rape myths, along with other attitudinal characteristics, is one such factor that may contribute to campus sexual assault. Examining the acceptance of rape myths as it relates to the potential for perpetration and victim self-blame can help campuses address the risk of sexual violence before it occurs.

Rape myth acceptance lies at the confluence of a range of sociocultural and attitudinal characteristics. Research has established a positive correlation between rape myth acceptance

and hostility toward women (Lonsway & Fitzgerald, 1995). The acceptance of rape myths has been associated with a decreased willingness to intervene as a bystander in potentially dangerous situations (McMahon, 2010). Research has found that being male, having conservative political views, being less educated, and accepting aggressive behaviors are positively associated with rape myth acceptance (Anderson, Cooper, & Okamura, 1997). The examination of such factors must also be understood in broader structures of racism, classism, and sexism, as the understanding the overlapping effects of such oppressive structures surely interact with one another (Suarez & Gadalla, 2010).

The research presented here belies the point that rape myths are one piece of a complex range of factors that contribute to sexual violence. These findings are a small contribution to an immense body of research, but they reflect the importance of its continuation.

Rape myth acceptance is a challenging concept to measure accurately. Despite its limitations, the data are clear that rape myth acceptance has important implications, both in its relation to other attritional characteristics, and how such characteristic might affect behavior. That said, it is also important to note that rape myths are an observable cultural reality. The subscales "she asked for it," "he didn't mean to," and "it wasn't really rape," are not simply theoretical concepts, they are lived and observed norms closely related to "legitimate" sexual scripts. The language may not be so blatant, but the message is clear. We see this in advertising that reinforces the myth that women say no, when they really mean yes. We hear it in popular music, such as the recent Robin Thicke song, "Blurred Lines" as he says, "You're a good girl. You know you want it." It is excused as harmless banter when the words of political leaders reinforce the myth that women enjoy or deserve to be touched without their consent. Rape myths

are present in our policing, courts, and policies, which place the responsibility of proof on victims.

How might the rampant reinforcement of such falsehoods affect our relationships, or the way we approach them? The research is clear that rape myths have the power to affect behavior. The danger of rape myths is blatantly apparent when we consider how entangled they are with sexual scripts, which inform cultural understanding how consent and intimacy ought to be approached. This is clear in heterosexual scripts in which normative interaction requires men to initiate sexual contact, and women to either accept, or reject. The norms of agency in intimacy are also related to rape myths by requiring women, as sexual gatekeepers, to express as verbal "no" to stop an advance, but no equivalent norm requires the initiator (typically male) to gain consent fist. If rape myths are so widespread, how might we expect people, specifically college students, to differentiate between a healthy script, and a harmful myth?

The implications of rape myth acceptance research are wide spanning and complex. As this field continues to advance, such attitudinal variables can help to address campus sexual assault by identifying risk factors that influence perpetration. Furthermore, this research can help to shape policy and practice as it relates to campus prevention efforts. Understanding the extent to which rape myths are accepted in a given population is a critical step to creating campuses free from sexual violence.

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Appendix A: Rape Myth Acceptance Scales

Table 1. Rape Myth Acceptance Scale (Burt, 1980)

- 1. A woman who goes to the home or apartment of a man on their first date implies that she is willing to have sex.
- 2. Any female can get raped.
- 3. One reason that women falsely report a rape is that they frequently have a need to call attention to themselves.
- 4. Any healthy woman can successfully resist a rapist if she really wants to.
- 5. When women go around braless or wearing short skirts and tight tops, they are just asking for trouble.
- 6. In the majority of rapes, the victim is promiscuous or has a bad reputation.
- 7. If a girl engages in necking or petting and she lets things get out of hand, it is her own fault if her partner forces sex on her.
- 8. Women who get raped while hitchhiking get what they deserve.
- 9. A woman who is stuck-up and thinks she is too good to talk to guys on the street deserves to be taught a lesson.
- 10. Many women have an unconscious wish to be raped, and may then unconsciously set up a situation in which they are likely to be attacked.
- 11. If a woman gets drunk at a party and has intercourse with a man she's just met there, she should be considered "fair game" to other males at the party who want to have sex with her too, whether she wants to or not.
- 12. What percentage of women who report a rape would you say are lying because they are angry and want to get back at the man they accuse?
- 13. What percentage of reported rapes would you guess were merely invented by women who discovered they were pregnant and wanted to protect their own reputation?

A person comes to you and claims they were raped. How likely would you be to believe their 14. statement if the person were:

your best friend?

an Indian woman?

a neighborhood woman?

- a young boy? a black woman?
- a white woman?

Table 2. Rape Myth Scale (Lonsaway & Fitzgerald, 1995)

- 1. When women talk and act sexy, they are inviting rape.
- 2. When a woman is raped, she usually did something careless to put herself in that situation.
- 3. Any woman who teases a man sexually and doesn't finish what she started realistically deserves anything she gets.
- 4. Many rapes happen because women lead men on.
- 5. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.
- 6. In some rape cases, the woman actually wanted it to happen.
- 7. Even though the woman may call it rape, she probably enjoyed it.
- 8. If a woman doesn't physically fight back, you can't really say that it was a rape.
- 9. A rape probably didn't happen if the woman has no bruises or marks.
- 10. When a woman allows petting to get to a certain point, she is implicitly agreeing to have sex.
- 11. If a woman is raped, often it's because she didn't say "no" clearly enough.
- 12. Women tend to exaggerate how much rape affects them.
- 13. When men rape, it is because of their strong desire for sex.
- 14. It is just part of human nature for men to take sex from women who let their guard down.
- 15. A rapist is more likely to be Black or Hispanic than White.
- 16. In any rape case one would have to question whether the victim is promiscuous or has a bad reputation.
- 17. Rape mainly occurs on the "bad" side of town.
- 18. Many so-called rape victims are actually women who had sex and "changed their minds" afterwards.
- 19. If a husband pays all the bills, he has the right to sex with his wife whenever he wants.

Table 3. Illinois Rape Myth Acceptance Scale (IRMA) (Payne, Lonsway & Fitzgerald, 1999)

- 1. If a woman is raped while she is drunk, she it at least somewhat responsible for letting things get out of control
- 2. Although most women wouldn't admit it, they generally find being physically forced into sex a real "turn-on"
- 3. When men rape, it is because of their strong desire for sex.
- 4. If a woman is willing to "make out" with a guy, then it's no big deal if he goes a little further and has sex.
- 5. Women who are caught having an illicit affair sometimes claim it was rape.
- 6. Newspapers should not release the name of rape victim to the public.
- 7. Many so-called rape victims are actually women who had sex and "changed their minds" afterward.
- 8. Many women secretly desire to be raped.
- 9. Rape mainly occurs on the "bad" side of town.
- 10. Usually, it is only women who do things like hang out in bars and sleep around that are raped.
- 11. Most rapists are not caught by the police.
- 12. If a woman doesn't physically fight back, you can't really say that it was rape.
- 13. Men from nice middle-class homes almost never rape.
- 14. Rape isn't as big a problem as some feminists would like people to think.
- 15. When women go around wearing low-cut tops or short skirts, they're just asking for trouble.
- 16. Rape accusations are often used as way of getting back at men.
- 17. A rape probably didn't happen if the woman has no bruises or marks.
- 18. Many women find being forced to have sex very arousing.
- 19. If a woman goes home with a man she doesn't know, it is her own fault if she is rape.
- 20. Rapists are usually sexually frustrated individuals.
- 21. All women should have access to self-defense classes.
- 22. It is usually only women who dress suggestively that are raped.
- 23. Some women prefer to have sex forced on them so they don't have to feel guilty about it.
- 24. If the rapist doesn't have a weapon you really can't call it rape.
- 25. When a woman is a sexual tease, eventually she is going to get into trouble.
- 26. Being raped isn't as bad as being mugged and beaten.
- 27. Rape is unlikely to happen in the woman's own familiar neighborhood.
- 28. In reality, women are almost never raped by their boyfriends.

- 29. Women tend to exaggerate how much rape affects them.
- 30. When a man is very sexually aroused, he may not even realize that the woman is resisting.
- 31. A lot of women lead a man on and then they cry rape.
- 32. It is preferable that a female police officer conduct the questioning when a woman reports a rape.
- 33. A lot of times, women who claim they were raped just have emotional problems.
- 34. If a woman doesn't physically resist sex--even when protesting verbally--it really can't be considered rape.
- 35. Rape almost never happens in the woman's own home.
- 36. A woman who "teases" men deserves anything that might happen.
- 37. When women are raped, it's often because the way they said "no" was ambiguous.
- 38. If a woman isn't a virgin, then it shouldn't be a big deal if her date forces her to have sex.
- 39. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.
- 40. This society should devote more effort to preventing rape.
- 41. A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.
- 42. Rape happens when a man's sex drive gets out of control.
- 43. A woman who goes to the home or apartment of a man on the first date is implying that she wants to have sex.
- 44. Many women actually enjoy sex after the guy uses a little force.
- 45. If a woman claims to have been raped but has no bruises or scrapes, she probably shouldn't be taken too seriously.

Table 4. Illinois Rape Myth Acceptance Scale Short Form (IRMA-SF) (Payne, Lonsway, & Fitzgerald, 1999)

- 1. If a woman is raped while she is drunk, she is at least somewhat responsible for letting things get out of control.
- 2. Although most women wouldn't admit it, they generally find being physically forced into sex a real "turn-on"
- 3. If a woman is willing to "make out" with a guy, then it's no big deal if he goes a little further and has sex.
- 4. Many women secretly desire to be raped.
- 5. Most rapists are caught by the police.
- 6. If a woman doesn't physically fight back, you can't really say that it was rape.
- 7. Men from nice middle-class homes almost never rape.
- 8. Rape accusations are often used as a way of getting back at men.
- 9. All women should have access to self-defense classes.
- 10. It is usually only women who dress suggestively that are raped.
- 11. If the rapist doesn't have a weapon you really can't call it rape.
- 12. Rape is unlikely to happen in the woman's own familiar neighborhood.
- 13. Women tend to exaggerate how much rape affects them.
- 14. A lot of women lead a man on and then they cry rape.
- 15. It is preferable that a female police officer conduct the questioning when a woman reports a rape.
- 16. A woman who "teases" men deserves anything that might happen.
- 17. When women are raped, it's often because the way they said "no" was ambiguous.
- 18. Men don't usually intend to force sex on a woman, but sometimes they get too sexually carried away.
- 19. A woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex.
- 20. Rape happens when a man's sex drive gets out of control.

Table 5. Updated Illinois Rape Myth Acceptance Scale Items (uIRMA) (McMahon & Farmer, 2011)

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

Table 6. Revised Version of the Updated Illinois Rape Myth Acceptance Scale (rIRMA)

- 1. If a person is sexually assaulted while they are drunk, they are at least somewhat responsible for letting things get out of hand.
- 2. When people go to parties wearing revealing clothes, they are asking for trouble.
- 3. If a person goes to a room alone with someone at a party, it their own fault if they are sexually assaulted.
- 4. If a person acts like a slut, eventually they are going to get into trouble.
- 5. When a person is sexually assaulted, it's often because the way they said "no" was unclear.
- 6. If a person initiates kissing or hooking up, they should not be surprised if the other person assumed they want to have sex.
- 7. When people sexually assault others, it is usually because of their strong desire for sex.
- 8. People don't usually intend to force sex on others, but sometimes they get too sexually carried away.
- 9. Sexual assault happens when a person's sex drive goes out of control.
- 10. If a person if drunk, they might rape someone unintentionally.
- 11. If shouldn't be considered sexual assault if a person is drunk and didn't realize what they were doing.
- 12. If both people are drunk, it can't be sexual assault.
- 13. If a person doesn't physically resist sex—even if protesting verbally—it can't be considered sexual assault.
- 14. If a person doesn't physically fight back, you can't really say it was sexual assault.
- 15. A sexual assault probably doesn't happen if a person doesn't have any bruises or marks.
- 16. If the accused doesn't have a weapon, you can't really call it sexual assault.
- 17. If a person doesn't say "no" they can't claim a sexual assault occurred.

Appendix B: Results by Survey (uIRMA vs. rIRMA) and Sex

Table 1. Means and Standard Deviations by Survey Group

Survey Item: uIRMA (a. statements) and rIRMA (b. statements)	uIRMA (n=670) Mean (SD)	rIRMA (n=714) Mean (SD)	Sig.
1a. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.1b. If a person is sexually assaulted while they are drunk, they are at least somewhat responsible for letting things get out of hand.	0.74 (1.23)	1.16 (1.52)	0.00
2a. When girls go to parties wearing slutty clothes, they are asking for trouble.2b. When people go to parties wearing revealing clothes, they are asking for trouble.	0.83 (1.30)	1.03 (1.40)	0.01
3a. If a girl goes to a room alone with a guy at party, it is her own fault is she is raped.3b. If a person goes to a room alone with someone at a party, it their own fault if they are sexually assaulted.	0.53 (0.97)	0.87 (1.23)	0.00
4a. If a girl acts like a slut, eventually she is going to get into trouble.4b. If a person acts like a slut, eventually they are going to get into trouble.	1.60 (2.00)	1.17 (1.6)	0.10
5a. When girls get raped, it's often because the way they said "no" was unclear.5b. When a person is sexually assaulted, it's often because the way they said "no" was unclear.	0.65 (1.08)	0.93 (1.35)	0.00
6a. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.6b. If a person initiates kissing or hooking up, they should not be surprised if the other person assumed they want to have sex.	1.37 (1.60)	1.36 (1.46)	0.83
7a. When guys rape, it is usually because of their strong desire for sex.7b. When people sexually assault others, it is usually because of their strong desire for sex.	2.48 (1.74)	2.26 (1.67)	0.02

8a. Guy don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	2.00	2.02	0.84
8b. People don't usually intend to force sex on others, but sometimes they get to sexually carried away.	(1.52)	(1.55)	
9a. Rape happens when a guy's sex drive goes out of control.	1.77	1.76	0.84
9b. Sexual assault happens when a person's sex drive goes out of control.	(1.63)	(1.55)	
10a. If a guy is drunk, he might rape someone unintentionally.	1.61	1.77	0.06
10b. If a person if drunk, they might rape someone unintentionally.	(1.56)	(1.54)	0.00
11a. It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.			
ne was doing.	0.51	0.63	0.03
11b. If shouldn't be considered sexual assault is person is drunk and didn't realize what they were doing.	(0.98)	(1.12)	0.03
12a. If both people are drunk, it can't be rape.	0 = -	0.00	
12b. If both people are drunk, it can't be sexual assault.	0.76 (1.27)	0.80 (1.28)	0.56
13a. If a girl doesn't physically resist sex—even if protesting verbally—it			
can't be considered rape.			
•	0.41	0.57	0.01
13b. If a person doesn't physically resist sex—even if protesting verbally—it can't be considered sexual assault.	(1.00)	(1.34)	
14a. If a girl doesn't physically fight back, you can't really say it was rape.			
	0.27	0.37	0 02
14b. If a person doesn't physically fight back, you can't really say it was sexual assault.	(0.76)	(0.87)	0.02
15a. A rape probably doesn't happen if a girl doesn't have any bruises or			
marks.	0.14	0.29	
15b. A sexual assault probably doesn't happen if a person doesn't have any bruises or marks.	(0.47)	(0.78)	0.00
16a. If the accused "rapist" doesn't have a weapon, you really can't call it			
rape.	0.13	0.24	
16b. If the accused doesn't have a weapon, you can't really call it sexual assault.	(0.49)	0.24 (0.74)	0.00
17a. If a girl doesn't say "no" she can't claim rape.			
•	0.91	0.88	0.73
17b. If a person doesn't say "no" they can't claim a sexual assault occurred.	(1.42)	(1.29)	0./3

Table 2. Means and Standard Deviations by Sex

Survey Item: uIRMA (a. statements) and rIRMA (b. statements)	Male (n=607) Mean (SD)	Female (n=759) Mean (SD)	Sig.
1a. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.1b. If a person is sexually assaulted while they are drunk, they are at least somewhat responsible for letting things get out of hand.	1.27 (1.48)	0.71 (1.28)	0.00
2a. When girls go to parties wearing slutty clothes, they are asking for trouble.2b. When people go to parties wearing revealing clothes, they are asking for trouble.	1.35 (1.50)	0.59 (1.12)	0.00
3a. If a girl goes to a room alone with a guy at party, it is her own fault is she is raped.3b. If a person goes to a room alone with someone at a party, it their own fault if they are sexually assaulted.	0.99 (1.22)	0.48 (1.00)	0.00
4a. If a girl acts like a slut, eventually she is going to get into trouble.4b. If a person acts like a slut, eventually they are going to get into trouble.	2.16 (1.62)	1.23 (1.45)	0.00
5a. When girls get raped, it's often because the way they said "no" was unclear.5b. When a person is sexually assaulted, it's often because the way they said "no" was unclear.	1.04 (1.31)	0.60 (1.12)	0.00
6a. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.6b. If a person initiates kissing or hooking up, they should not be surprised if the other person assumed they want to have sex.	1.82 (1.54)	1.00 (1.38)	0.00
7a. When guys rape, it is usually because of their strong desire for sex.7b. When people sexually assault others, it is usually because of their strong desire for sex.	2.67 (1.66)	2.14 (1.70)	0.00
8a. Guy don't usually intend to force sex on a girl, but sometimes they get too sexually carried away. 8b. People don't usually intend to force sex on others, but sometimes they get to sexually carried away.	2.39 (1.48)	1.70 (1.51)	0.00

9a. Rape happens when a guy's sex drive goes out of control.	2.09	1.51	0.00
9b. Sexual assault happens when a person's sex drive goes out of control.	(1.59)	(1.55)	0.00
10a. If a guy is drunk, he might rape someone unintentionally.10b. If a person if drunk, they might rape someone unintentionally.	1.96 (1.54)	1.47 (1.53)	0.00
11a. It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.11b. If shouldn't be considered sexual assault is person is drunk and didn't realize what they were doing.	0.84 (1.23)	0.36 (0.84)	0.00
12a. If both people are drunk, it can't be rape.12b. If both people are drunk, it can't be sexual assault.	1.20 (1.47)	0.46 (0.99)	0.00
 13a. If a girl doesn't physically resist sex—even if protesting verbally—it can't be considered rape. 13b. If a person doesn't physically resist sex—even if protesting verbally—it can't be considered sexual assault. 	0.71 (1.25)	0.31 (0.87)	0.00
14a. If a girl doesn't physically fight back, you can't really say it was rape.14b. If a person doesn't physically fight back, you can't really say it was sexual assault.	0.48	0.19 (0.65)	0.00
15a. A rape probably doesn't happen if a girl doesn't have any bruises or marks.15b. A sexual assault probably doesn't happen if a person doesn't have any bruises or marks.	0.36 (0.82)	0.10 (0.45)	0.00
16a. If the accused "rapist" doesn't have a weapon, you really can't call it rape. 16b. If the accused doesn't have a weapon, you can't really call it sexual assault.	0.20 (0.80)	0.09(0.43)	0.00
17a. If a girl doesn't say "no" she can't claim rape.17b. If a person doesn't say "no" they can't claim a sexual assault occurred.	1.18 (1.46)	0.66 (1.20)	0.00

Table 3. Means and Standard Deviations by Sex and Group

Survey Item: uIRMA (a. statements) and rIRMA (b.	Male (n=670) Mean	Female (n=714) Mean	Sig.
statements)	(SD)	(SD)	
1a. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.	0.96 (1.30)	0.56 (1.14)	0.04
1b. If a person is sexually assaulted while they are drunk, they are at least somewhat responsible for letting things get out of hand.	1.54 (1.58)	.85 (1.39)	
2a. When girls go to parties wearing slutty clothes, they are asking for trouble.	1.14 (1.42)	0.57 (1.13)	0.01
2b. When people go to parties wearing revealing clothes, they are asking for trouble.	1.55 (1.54)	0.60 (1.11)	0.01
3a. If a girl goes to a room alone with a guy at party, it is her own fault is she is raped.	0.69 (1.02)	0.39 (0.90)	0.00
3b. If a person goes to a room alone with someone at a party, it their own fault if they are sexually assaulted.	1.26 (1.32)	.56 (1.05)	
4a. If a girl acts like a slut, eventually she is going to get into trouble.	1.92 (1.61)	1.28 (1.52)	0.00
4b. If a person acts like a slut, eventually they are going to get into trouble.	2.38 (1.60)	1.18 (1.38)	0.00
5a. When girls get raped, it's often because the way they said "no" was unclear.	0.89 (1.19)	0.46 (0.92)	1.00
5b. When a person is sexually assaulted, it's often because the way they said "no" was unclear.	1.17 (1.40)	0.74 (1.27)	
6a. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.	1.74 (1.58)	1.07 (1.47)	0.06
6b. If a person initiates kissing or hooking up, they should not be surprised if the other person assumed they want to have sex.	1.89 (1.50)	0.92 (1.28)	

7a. When guys rape, it is usually because of their strong desire for sex.	2.67 (1.74)	2.35 (1.73)	0.03
7b. When people sexually assault others, it is usually because of their strong desire for sex.	2.67 (1.59)	1.93 1.644	
8a. Guy don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	2.31 (1.49)	1.75 (1.49)	0.16
8b. People don't usually intend to force sex on others, but sometimes they get to sexually carried away.	2.45 (1.47)	1.66 (1.52)	
9a. Rape happens when a guy's sex drive goes out of control.	1.96 (1.68)	1.63 (1.58)	0.01
9b. Sexual assault happens when a person's sex drive goes out of control.	2.20 (1.49)	1.40 (1.51)	0.01
10a. If a guy is drunk, he might rape someone unintentionally.	1.83 (1.58)	1.42 (1.51)	0.38
10b. If a person if drunk, they might rape someone unintentionally.	2.08 (1.49)	1.53 (1.55)	
11a. It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.	0.70 (1.14)	0.36 (0.81)	0.01
11b. If shouldn't be considered sexual assault is person is drunk and didn't realize what they were doing.	0.98 (1.29)	0.35 (0.87)	
12a. If both people are drunk, it can't be rape.	1.17 (1.47)	0.45 (0.98)	0.78
12b. If both people are drunk, it can't be sexual assault.	1.22 (1.47)	0.46 (0.99)	
13a. If a girl doesn't physically resist sex—even if protesting verbally—it can't be considered rape.	0.55 (1.14)	0.30 (0.87)	0.01
13b. If a person doesn't physically resist sex—even if protesting verbally—it can't be considered sexual assault.	0.86 (1.33)	0.32 (0.87)	
14a. If a girl doesn't physically fight back, you can't really say it was rape.	0.39 (0.87)	0.17 (0.63)	0.11
14b. If a person doesn't physically fight back, you can't really say it was sexual assault.	0.57 (1.02)	0.21 (0.67)	

15a. A rape probably doesn't happen if a girl doesn't have any bruises or marks.	0.23 (0.58)	0.07 (0.33)	
	,	,	0.01
15b. A sexual assault probably doesn't happen if a person doesn't	0.47	0.13	
have any bruises or marks.	(0.98)		
1/o If the council "mariet" describ house a magnetic mariet	0 21	0.06	
16a. If the accused "rapist" doesn't have a weapon, you really	0.21 (0.66)	0.06 (0.27)	
can't call it rape.	(0.00)	(0.27)	0.22
16b. If the accused doesn't have a weapon, you can't really call it	0.37	0.13	
sexual assault.	(0.91)	(0.53)	
	1.15	0.71	
17a. If a girl doesn't say "no" she can't claim rape.	(1.52)	(1.29)	
4-1 - 20	` ,	, ,	0.34
17b. If a person doesn't say "no" they can't claim a sexual assault	1.20	0.62	
occurred.	(1.40)	(1.12)	

Table 4. Means and Standard Deviations by Subscale

	uIRMA (n = 670)		rIRMA $(n = 714)$		
Subscale	Mean	SD	Mean	SD	Sig.
Subscale 1: She Asked for It (Items 1-6)	5.70	5.93	7.07	6.67	0.00
Subscale 2: He Didn't Mean To (Items 7-12)	9.14	5.87	9.24	6.21	0.77
Subscale 3: It Wasn't Really Rape (Items 13-17)	1.87	3.10	2.35	3.88	0.01
Total	16.70	12.46	18.65	14.54	0.01

Appendix C: Survey Questions

Sorting item:

If your birthday is an odd number, click 1. If your birthday is an even number, click 2
(for example, March 23 is odd so click 1: March 24 is even so click 2)

° 01

uIRMA:

Using the scale below, please indicate how much you agree with the following statements:

0 Strongly Disa	1 igree	2	3	4 5 Strongly Agree			
	0	1	2	3	4	5	
If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.	\circ	\circ	\circ	\circ	\circ	\circ	
When girls go to parties wearing slutty clothes, they are asking for trouble.	\circ	\circ	\circ	\circ	\circ	\circ	
If a girl goes to a room alone with a guy at party, it is her own fault is she is raped.	\circ	\circ	\circ	\circ	\circ	\circ	
If a girl acts like a slut, eventually she is going to get into trouble.	\circ	\circ	\circ	\circ	\circ	\circ	
When girls get raped, it's often because the way they said "no" was unclear.	\circ	\circ	\circ	\circ	\circ	\circ	
If a girl initiates kissing or hooking up, she should not be surprised if a guys assumes she wants to have sex.	\circ	\circ	\circ	\circ	\circ	\circ	
When guys rape, it is usually because of their strong desire for sex.	\circ	\circ	\circ	\circ	\circ	\circ	
Guy don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	\circ	\circ	\circ	\circ	\circ	\circ	
Rape happens when a guy's sex drive goes out of control.	0	0	0	0	0	0	
If a guy is drunk, he might rape someone unintentionally.	0	0	\circ	0	0	0	
It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.	0	\circ	\circ	\circ	\circ	\circ	
If both people are drunk, it can't be rape.	0	0	0	0	0	0	
If a girl doesn't physically resist sex—even if protesting verbally— it can't be considered rape.	0	\circ	\circ	\circ	\circ	\circ	
If a girl doesn't physically fight back, you can't really say it was rape.	\circ	\circ	\circ	\circ	\circ	\circ	
A rape probably doesn't happen if a girl doesn't have any bruises or marks.	\circ	\circ	\circ	\circ	\circ	\circ	
If the accused "rapist" doesn't have a weapon, you really can't call it rape.	\circ	\circ	\circ	\circ	\circ	\circ	
If a girl doesn't say "no" she can't claim rape.	0	0	0	0	0	0	

rIRMA:

Using the scale below, please indicate how much you agree with the following statements:

0 1 Strongly Disagree		2	3	4 5 Strongly Agree		
	0	1	2	3	4	5
If a person is sexually assaulted while they are drunk, the least somewhat responsible for letting things get out of he		\circ	\circ	\circ	\circ	\circ
When people go to parties wearing revealing clothes, they asking for trouble.	are	\circ	\circ	\circ	\circ	\circ
If a person goes to a room alone with someone at a party own fault if they are sexually assaulted.	, it their	\circ	\circ	\circ	\circ	\circ
If a person acts like a slut, eventually they are going to go trouble.	et into	0	\circ	\circ	\circ	0
When a person is sexually assaulted, it's often because the they said "no" was unclear.	e way	0	\circ	\circ	\circ	\circ
If a person initiates kissing or hooking up, they should no surprised if the other person assumed they want to have		0	\circ	\circ	\circ	\circ
When people sexually assault others, it is usually because strong desire for sex.	of their	\circ	\circ	\circ	\circ	\circ
People don't usually intend to force sex on others, but sor they get to sexually carried away.	netimes	\circ	\circ	\circ	\circ	0
Sexual assault happens when a person's sex drive goes of control.	ut of	\circ	\circ	\circ	\circ	0
If a person if drunk, they might rape someone unintention	nally.	0	0	0	0	0
If shouldn't be considered sexual assault is person is drun didn't realize what they were doing.	k and	\circ	\circ	\circ	\circ	\circ
If both people are drunk, it can't be sexual assault.	0	0	0	0	0	0
If a person doesn't physically resist sex—even if protestin verbally—it can't be considered sexual assault.	g O	\circ	\circ	\circ	\circ	\circ
If a person doesn't physically fight back, you can't really s was sexual assault.	say it	\circ	\circ	\circ	\circ	\circ
A sexual assault probably doesn't happen if a person does have any bruises or marks.	in't	\circ	\circ	\circ	\circ	\circ
If the accused doesn't have a weapon, you can't really cal sexual assault.	l it	\circ	\circ	\circ	\circ	\circ
If a person doesn't say "no" they can't claim a sexual asso occurred.	oult O	0	\circ	0	\circ	0