

MIRANDA RIGHTS COMPREHENSION AND ADVICE TO JUVENILES

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ABSTRACT

Juveniles have limited understanding of their Miranda rights. Reforms including simplified wording and the presence of an “interested adult” have been implemented to assist juveniles with legal decisions, but adults’ understanding of Miranda rights is also limited. The present study examined whether adults’ Miranda knowledge related to their estimates of juveniles’ Miranda understanding and their advice to juveniles being questioned by police. Online participants ($n= 498$) completed measures of Miranda knowledge and read one of eight hypothetical scenarios varying the juvenile’s age (13 or 16 years), Miranda rights version (standard or simplified), and crime (shoplifting or shooting). Across all conditions, most participants felt that juveniles would not fully understand their rights and advised juveniles to invoke them. The simplified Miranda warning did not improve expectations of juvenile understanding or improve adults’ explanations of these rights. Findings from this study have policy and practice implications for juvenile justice and police procedure.

DEDICATION

This thesis is dedicated to my Mom for all of her unwavering support in the past year. I cannot begin to thank you for all you have taught me and the endless love and strength you have shown. And to Dad, who I wish could have been here to see it all.

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CHAPTER I

INTRODUCTION

In the United States, custodial suspects, whether adults or juveniles, are afforded five specific rights and legal protections related to police questioning as defined in *Miranda v. Arizona* (1966). This landmark court case ensures the suspect protection against self-incrimination and wrongful police interrogation. These five rights may be summarized as:

1. You have the right to remain silent. Anything you say can be used against you in court.
2. You have the right to talk to a lawyer for advice before we ask you any questions.
3. You have the right to have a lawyer with you during questioning.
4. If you cannot afford a lawyer, one will be appointed for you before any questioning if you wish.
5. If you decide to answer questions now without a lawyer present, you have the right to stop answering at any time.

The Miranda rights are consistently read to the thousands of detained individuals every year, as marked in standard police practice. The Miranda rights further ensure the admissibility of a confession given by a suspect during police questioning. Waivers of rights are considered admissible if they are “knowing, voluntary, and intelligent” (Oberlander & Goldstein, 2001). Before the Miranda case, courts used a totality of circumstances to determine the admissibility of a waiver under the voluntariness test (Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003; Oberlander & Goldstein, 2001). Under the totality of circumstances rule, courts would consider

the suspect's age, intelligence, police custody status, background, and prior history with the criminal justice system as influencing factors to determine if there had been an appropriate waiver of rights and possibly the confession (Goldstein et al., 2003). These factors were grouped into two categories, situational and suspect-specific, with age and intelligence being two of the most heavily weighed suspect-specific factors, followed by academic performance and special education (Zelle, Romaine, & Goldstein, 2014).

In deciding the admissibility of a waiver of rights, the courts tend to follow a case by case approach. In *State v Prater* (1970), the court decided the suspect understood his rights based on his extensive prior arrest history and repeated exposure to police arrest procedures. Though courts consider the circumstances of the defendant when determining the admissibility of a confession or waiver, previous research has shown that courts have ruled no particular IQ score is indicative of comprehension (Grisso, 1981). Further, familiarity and previous exposure to the criminal justice system do not guarantee the defendants understand their rights (Grisso, 1981).

Courts use two standards when deciding the comprehension of Miranda rights: 'understanding only' and 'understanding and appreciating' (Viljoen, Zapf, & Roesch, 2007). The ruling that juveniles "appreciate" their Miranda rights includes not only understanding the rights, but also the reason why remaining silent and/or speaking with a legal representative is important. With legal standards varying across court systems, it is difficult to pinpoint exactly what specifies competence to waive rights, let alone understand or appreciate those rights (Viljoen et al., 2007). Additional research has focused on whether appreciation of rights is necessary to ensure a voluntary, knowing, and intelligent waiver of rights (Zelle et al., 2014).

Despite the common belief that Miranda warnings must be read upon questioning (Oberlander, 1998), Miranda warnings are only obligatory when the police have a suspect in

custody and plan to elicit and use information from that suspect (Oberlander, 1998). When presenting Miranda rights, police can choose from a slew of delivery methods including reciting the warnings at any speed, providing a verbal and then written form, or giving only a written form thereby asking the suspects to read the warnings themselves (Oberlander & Goldstein, 2001). Officers also have the option of reading the warnings slowly and carefully and asking for comprehensive feedback for each warning, a method which could be beneficial to the suspect's understanding (Oberlander & Goldstein, 2001). The Miranda ruling lacked any prescriptive guidance in regard to the length of the warnings and the difficulty of language permitted. Prior research identified over 945 different versions of general Miranda rights warnings from only 888 jurisdictions across the United States (Rogers et al., 2008).

Adults' Comprehension of Miranda Rights

While it is generally assumed that adults have reasonable understanding of Miranda warnings, previous literature has shown major discrepancies between perceived Miranda knowledge and what adults really know (Cavanagh & Cauffman, 2017; Cleary & Warner, 2017). Rogers and colleagues (2010) surveyed undergraduate college students with the Miranda Quiz; a 25-item questionnaire designed to measure misconceptions of Miranda rights. Their results showed that more than a third of college students in their sample believed that asserting their right to silence was equivalent to appearing guilty. More than half of college-educated students were likely to confuse the term indigent (i.e., an individual without sufficient income to afford a lawyer) with indicted (i.e., formally charged with a crime). Overall, college students in the sample understood less than 70% of Miranda components such as the right to silence, risks of talking, right to counsel, free legal services, and continuing legal rights.

Further Miranda misconceptions were found in jury-eligible individuals in Dallas County, Texas (Rogers et al., 2013). In this study, participants rated their own knowledge of Miranda rights and were then ranked based on their self-appraisal and ability to recall the Miranda rights. Upon completing the Miranda Quiz (Rogers et al., 2010), participants were classified into the following appraisal and knowledge groups: low appraisal uninformed (participants who self-identified low knowledge, and tested as uninformed about the Miranda rights; 34.0%), low appraisal-knowledgeable (22.75%), high appraisal uninformed (6.16%), and high appraisal-knowledgeable (36.97%). Individuals who fell in the high appraisal-knowledgeable group were considered the best-informed jurors, and yet, almost a third of the participants who formed this group believed that even if an attorney was requested, questioning by police could continue until the attorney arrived (Rogers et al., 2013). This group of participants, however, seemed to be more aware of deceptive police practices and the use of specific language in requesting an attorney and reasserting Miranda rights. In the overall sample, 23.9% of participants did not believe their right to silence was protected by law and about 21% believed their silence would be used against them. Most participants knew that anything they said could be used against them, yet 21% inaccurately believed that some statements could be protected from self-incrimination if they did not physically sign a waiver of Miranda rights. Moreover, the majority of participants were not aware of the precise language required when requesting an attorney (i.e., “I want an attorney,” vs. “I think I need an attorney”). Participants in Rogers and colleagues’ (2013) study also incorrectly believed that police could lie to them and accuse them of crimes that never occurred (56.7%) or indicate an eyewitness had identified them as the offender (48.4%).

Miranda rights misconceptions are not only present in the general population, but also in adults who have contact with the criminal justice system. Early research by Grisso (1981) showed that more than 40% of adult detainees believed a judge could revoke their right to remain silent. One-fifth believed that asserting the right to silence could be used as evidence against them, seeming guilty if in fact they were innocent. Winningham and colleagues (2018) found adult detainees (ages ≥ 26) had many misconceptions of Miranda rights, specifically that silence assumes self-incrimination and that an individual can retract a statement if the police lie to them. Furthermore, one quarter of defendants believed that a waiver must be signed in order to be valid, and half believed that off-the-record comments could not be used against them (Rogers et al., 2010).

Juvenile Miranda Comprehension and Waivers

The Miranda ruling from *Miranda v Arizona* (1966) was applied to juvenile suspects after the decisions of *Kent v. U.S* (1966) and *In Re Gault* (1987). Since the rise of juvenile violence in the 1980s and 1990s, more state legislatures have ruled on permitting juveniles to be tried in adult courts (Kurlychek & Johnson, 2010). Juvenile transfers to adult court increased by 400 percent throughout the 1980s. In response to “get tough” politics, nearly every state has lowered the legal age of juvenile transfer resulting in more juvenile cases being transferred and tried in adult court (Kurlychek & Johnson, 2010). As more juveniles were tried in adult court, their ability to waive Miranda rights and their competency to stand trial was questioned. (Redlich, Silverman, & Steiner, 2003).

It also appears that the stress of an interrogation may impact an individual’s competency to waive their Miranda rights as stress can negatively influence cognitive function (Scherr &

Madon, 2012; Scherr & Madon, 2013). When inducing stress via an accusation of misconduct (cheating), participants performed lower on standardized Miranda comprehension and reported feeling more stress compared to participants who were not accused of cheating (Scherr & Madon, 2012). Developmental psychologists consider cognitive ability and maturity of judgment when examining a juvenile's capability to invoke or waive Miranda rights in interrogation (Feld, 2013). Within in the legal context, researchers found that competency for decision making is undermined by deficiencies in cognitive ability and psychosocial factors (i.e., peer influence in risk-taking behavior) (Steinberg & Cauffman, 1996).

Though most juveniles' cognitive abilities are comparable to adults by mid-adolescence (16-years and older), young adults do not develop mature judgment and competence to make decisions until their twenties. This is due to the gradual development of the brain's prefrontal cortex (Bonnie & Scott, 2013; Feld, 2013). Furthermore, Feld (2013) noted that adolescents likely underestimate the amount and probability of risk, due to their underdeveloped prefrontal cortex. However, because connections between the prefrontal cortex and other parts of brain gradually develop, young adults' impulse control and emotional regulation do strengthen over time (Bonnie & Scott, 2013). While age and maturity are positively correlated with Miranda understanding, and maturity (but not age) strongly predicts appreciation of Miranda rights (Colwell et al., 2005), developmental limitations play a large role in Miranda waivers; ninety percent of juveniles forfeit their Miranda rights, with a large number of juveniles waiving the right to counsel simply due to misunderstanding their Miranda rights (Redlich et al., 2003).

Interviews conducted with adults and youth mandated to community-based, alternative-to-incarceration programs revealed the extent of legal knowledge in regards to plea and trial processes, decision-making, and false guilty pleas (Zottoli & Daftary-Kapur, 2019). The majority

of participants understood the basic elements of a guilty plea; 97% of adults and 84% of juveniles recognized a guilty plea necessitated admission of guilt. However, few youths recognized that guilty pleas resulted in a criminal record and in comparison to adults, youths did not fully grasp the meaning of a trial (Zottoli & Daftary-Kapur, 2019). Therefore, attorneys and judges who rely on questions such as “Do you understand that you are waiving your right to a trial?” might be missing important information which would establish the juveniles’ knowing and voluntary waiver (Zottoli & Daftary-Kapur, 2019, p. 176).

Comparing Miranda comprehension scores between adult and juvenile samples, Grisso (1981) found while 66.5% of adults could correctly paraphrase the third right (you have the right to a lawyer with you during questioning), only 29.9% of juveniles could. Moreover, 42.3% of adult participants had a perfect score on Miranda rights understanding, but only 20.9% juveniles held a perfect score. Also, over half of juveniles (55.3%) received 0-points on Miranda rights comprehension, compared to 23.1% of adult participants.

Goldstein and colleagues (2003) assessed adolescent male offenders’ Miranda comprehension using the Miranda Rights Comprehension Instrument-II and found that Miranda rights comprehension had not changed since the 1970s despite the increase in juvenile arrests and exposure to police interrogation. Specifically, adolescents in Goldstein and colleagues’ (2003) study averaged a 1.6 out of 2 total score on Miranda rights comprehension, where 2 represents adequate understanding. When examining the role of age and IQ in relation to Miranda understanding, they found that older adolescents had a better understanding than younger adolescents when controlling for verbal IQ. However, when controlling for age, juveniles with higher IQ scores performed better than those with lower IQs (Goldstein et al., 2003).

Zelle and colleagues (2014) further examined the complexity of the Miranda warnings and the importance of a juvenile's comprehension ability. Participants were presented with the Miranda Rights Comprehension Instruments (MRCI; Goldstein et al., 2013), and an achievement and intelligence test. Zelle and colleagues (2014) reported that the individual words presented in the warnings were too complex for juvenile suspects, so much so that the juveniles tended to focus on the complex word rather than the whole statement. This elevates the risk of misunderstanding Miranda rights altogether. Indeed, adolescents scored much lower when defining words such as "consult" compared to other words in Miranda warnings such as "questioning", "advice", "present", and "remain" and they tended to define rights in concrete rather than abstract terms. Academic achievement factors including reading comprehension, listening comprehension, and oral expression scores were also significantly positively correlated with MRCI scores. Age and verbal IQ were associated with both understanding and appreciation of rights. However, the researchers argued that understanding and appreciation should be treated as separate components, given that appreciation may be beyond the developmental capacity for juveniles aged 12 to 19 (Zelle et al., 2014).

Winningham and colleagues (2018) found similar results when looking at Miranda misconception across four age groups; younger juveniles ($M_{age} = 14.21$ years), older juveniles ($M_{age} = 16.41$), emerging adults ($M_{age} = 21.66$), and adults ($M_{age} = 38.38$), with previous arrest records. In their study, juvenile detainees showed considerable misconceptions of the Miranda rights, regardless of age. Younger juveniles performed poorly with only 62.7% correct, whereas emerging adults (84.0%) and adults (86.7%) held greater Miranda understanding. Both younger and older juveniles held more misconceptions regarding free legal service. Forty-four percent of

younger juveniles believed that if counsel was requested, their family would have to pay extensive legal expenses, and older juveniles believed this as well (40.9%).

Given the extensive evidence of juveniles' lack of Miranda understanding, in 2010, the American Bar Association called for simplified Miranda warning language to be used with juveniles (Rogers et al., 2012). Despite this new ruling, no guidance regarding the length of warnings was provided, which made some of the juvenile-adapted warnings potentially more difficult to comprehend than the original warnings; ranging from 64 to 1,020 words ($M = 213.63$) (Rogers et al., 2012; Winningham et al., 2018). For example, rather than, "you have the right to remain silent," a juvenile-adapted warning may state, "you have the right to remain silent. That means you do not have to say anything." While the adapted version attempts to explain what the original warning means, trying to understand the large amount of information may also be confusing to a juvenile who has never been in a custody situation before.

When examining the vocabulary used in the juvenile-adapted Miranda warnings, Zelle and colleagues (2014) noted that juveniles are at risk for increased miscomprehension as the individual words used in the standard or simplified warnings are too complex. Rogers and colleagues (2012) investigated the reading levels, lengths, and contents of juvenile Miranda warnings; specifically focusing on positive or negative connotations with relinquishing the Miranda rights. Of the 249 juvenile advisements provided to researchers, 231 included formal Miranda waivers (92.8%). However, the waivers were lengthy, averaging 67 words with a substantial proportion (15.2%) using legalese language (Rogers et al., 2012). They found 44.2% of warnings are at least 225 words; 9.4% were at a 6th grade reading level; 38.5% were at a 7th grade reading level; 34.5% were at an 8th to 9th grade reading level; 12.4% were at a 10th to 12th grade reading level; 5.2% were above a high school graduate level (Rogers et al., 2012).

Procedural Safeguards for Juveniles

As the courts realized juveniles were too vulnerable and immature to deal with the police alone, special cautions were set in place to consider the admissibility of confessions of juveniles (Goldstein et al., 2003). To further secure the validity of a waiver of rights, an “interested adult” can act as a procedural safeguard for juveniles in custody (Goldstein et al., 2003; Grisso, 1981). In the case of *Gallegos v Colorado* (1962), it was ruled that juvenile suspects can consult with a parent, guardian, or other interested adult party during interrogation, which can help them make educated, legal decisions. This ruling was implemented with the understanding that an adult could assist the juvenile in making legal decisions regarding the Miranda warnings. For example, the Supreme Court of New Jersey required that police involve parents in interrogations of juvenile suspects under the age of 14 years. *State v Presha* (2000) noted parents served as a buffer between the juvenile and police and were able to assist the juvenile in understanding their rights and intelligently waiving those rights.

However, Grisso (1981) argued that the presence of an “interested adult” could in fact be more harmful than beneficial to the juvenile, as adults tended to also misunderstand the Miranda rights and often encouraged the juvenile to confess to crimes. Woolard, Cleary, Harvell, and Chen (2008) examined the potential benefits and risks of involving “interested adults”. They collected data from interviews with youth-parent pairs and assessed their understanding of police interrogation and youth legal rights. Parents showed deficits in knowledge of interrogation procedure and police involvement of parents in youth questioning; 90% of parents believed they must be notified if a child is a witness or suspect in a case, which was not true in their jurisdiction. Another two-thirds believed that police have to wait for the parent’s arrival in order to start questioning the juvenile. Overall, parents strongly endorsed the need for extra support

during interrogation and that youth should not have full autonomy in interrogation decision-making regarding the presence of an adult. However, it is unclear whether having such a “interested adult” is truly beneficial due to the adults’ lack of understanding.

Finally, Woolard and colleagues (2008) found that the dual role of being the parent and providing the legal aid was often incompatible; the parent may want to protect the child from legal consequence, but also to teach the child to take responsibility for any wrongdoing (Woolard et al., 2008). The “interested adult” requirement, again, assumes the parent has enough knowledge of the legal system to aid the child in this situation. This further suggests that parents often enter the interrogation room with misconceptions about juvenile legal procedures, which in turn can be more problematic than beneficial to the juvenile.

Current Study Overview and Hypotheses

The understanding of Miranda rights is of vital importance to the public as any individual questioned by the police is entitled to these rights. Previous research shows adults and particularly juveniles have a limited understanding of Miranda rights, which raises the concern of whether anyone, let alone juveniles, are able to provide informed waivers of these rights during police questioning. Furthermore, the safeguard of the presence of an ‘interested adult’ may not be beneficial to the juvenile if the adult does not understand his/her rights. If adults have limited understanding or overestimate juveniles’ understanding of Miranda warnings, then the presence of an ‘interested adult’ may not provide an adequate safeguard.

The present study sought to address three research questions. First, I was interested to determine how adults perceive juveniles’ ability to understand Miranda rights. Specifically, I hypothesized that participants would indicate younger juveniles (13-year-olds) to have less

Miranda understanding than older juveniles (16-year-olds). Further, I hypothesized that the age of a juvenile would interact with the complexity of the language used in the Miranda right such that younger juveniles who were presented with the more complex rights would be rated lowest in Miranda understanding.

Second, I sought to examine how adults would advise juveniles when they were being questioned by police. Specifically, I hypothesized that adult participants would be more likely to advise juveniles to invoke their Miranda rights if they were younger (13-year-olds) than if they were older (16-year-olds). Further, I hypothesized that participants would be more likely to advise juveniles to invoke their Miranda rights if they were accused of a more severe crime (shooting vs. shoplifting). Finally, because I anticipated that participants would have low understanding of Miranda rights, I hypothesized that the likelihood of advising a juvenile to invoke their rights would be greater when the complexity of the language used in delivering the rights was more understandable (standard vs. simplified). Therefore, I predicted that participants would be more likely to advise invoking rights when the juvenile is younger, accused of a more severe crime, and when the rights were presented in simpler, more understandable, language.

Third, I was interested in determining whether there are any participant-related characteristics that support providing better explanations of Miranda rights and better advice to juveniles. Specifically, I hypothesized that participants who demonstrate better knowledge of Miranda rights will also be better able to explain those rights and better able to use their knowledge to provide advice to a juvenile. In addition, I predicted that participants who are currently parents, and therefore have experience with juveniles, would also be better able to restate Miranda rights and better able to provide advice to a juvenile, particularly when the rights were presented in less complex language.

CHAPTER II

METHODOLOGY

Participants

Participants were recruited from three sources, Amazon's Mechanical Turk (MTurk) online service, and from two universities in the southeastern United States. The MTurk sample was collected in two phases. The first MTurk sample ($n = 150$) was limited to English speaking, U.S. citizens, who were 18 years of age and older. These specific inclusion criteria were used in an attempt to gain a representative sample of individuals who should be reasonably aware of their Miranda rights. The second sample ($n = 151$) had an additional restriction; participants were required to be parents of children either between the ages of nine and 19 years old, or children in their twenties, or children in their thirties, or children older than thirty-years old. Finally, the student sample was open to all currently enrolled undergraduate and graduate students who were 18 years of age or older, enrolled in participating psychology courses.

Amazon MTurk workers were compensated \$1.00 if they passed an attention check question and provided reasonable answers to open-ended questions. This compensation amount was determined by analyzing the average cost of Human Intelligence Tasks (HITs) of similar length and participation requirements. Student participants were compensated with extra credit in their choice of participating psychology courses. The total sample consisted of 498 participants: 301 Amazon MTurk workers and 197 student volunteers from two mid-sized universities in the southeastern United States.

Thirty-five participants were excluded from the sample due to incomplete responses and/or attention check failures (incorrectly answering how old the child in the scenario was). Therefore, the final sample consisted of 463 participants (294 Amazon MTurk workers and 169 student volunteers).

Participants ranged in age from 18 to 80 with a mean age of 35.5 years ($SD = 14.2$). The final sample included 328 females (70.8%) and 134 males (28.9%). Three quarters (75.8%) identified as Caucasian or White, 10.8% as Black or African American, 6.3% as Hispanic or Latino, 3.2% as Asian, 2.4% as Multi-Racial, 0.9% as American Indian or Alaska Native, and 0.6% did not identify with any of the previously listed ethnicities. The sample included 233 parents/step-parent/legal guardian participants (50.3%) and 230 non-parents (49.7%). Of the parent participants, 120 had at least one child aged 12-17 years old (25.9%), 64 had children younger than 12-years old (13.8%), and 44 had children older than 17-years of age (9.5%). Overall, 218 participants had been previously questioned by police (47.1%) while 245 had not been previously questioned (52.9%). A total of 341 participants had no training or college coursework related to their rights, questioning procedures, or arrest procedures (73.7%) while 122 participants reported some form of prior training (26.3%). See Appendix B for demographic breakdown by student and MTurk sample.

Materials

Materials consisted of a demographic questionnaire, a free-recall question about Miranda rights, two versions of the Miranda rights (simplified and standard versions), a Miranda rights questionnaire, a police interrogation questionnaire, open-ended questions asking the participant

to restate, using their own words, each Miranda right to their 13- or 16-year-old son or brother, a crime scenario (shoplifting or shooting), and a police perceptions questionnaire (see Figure 1).

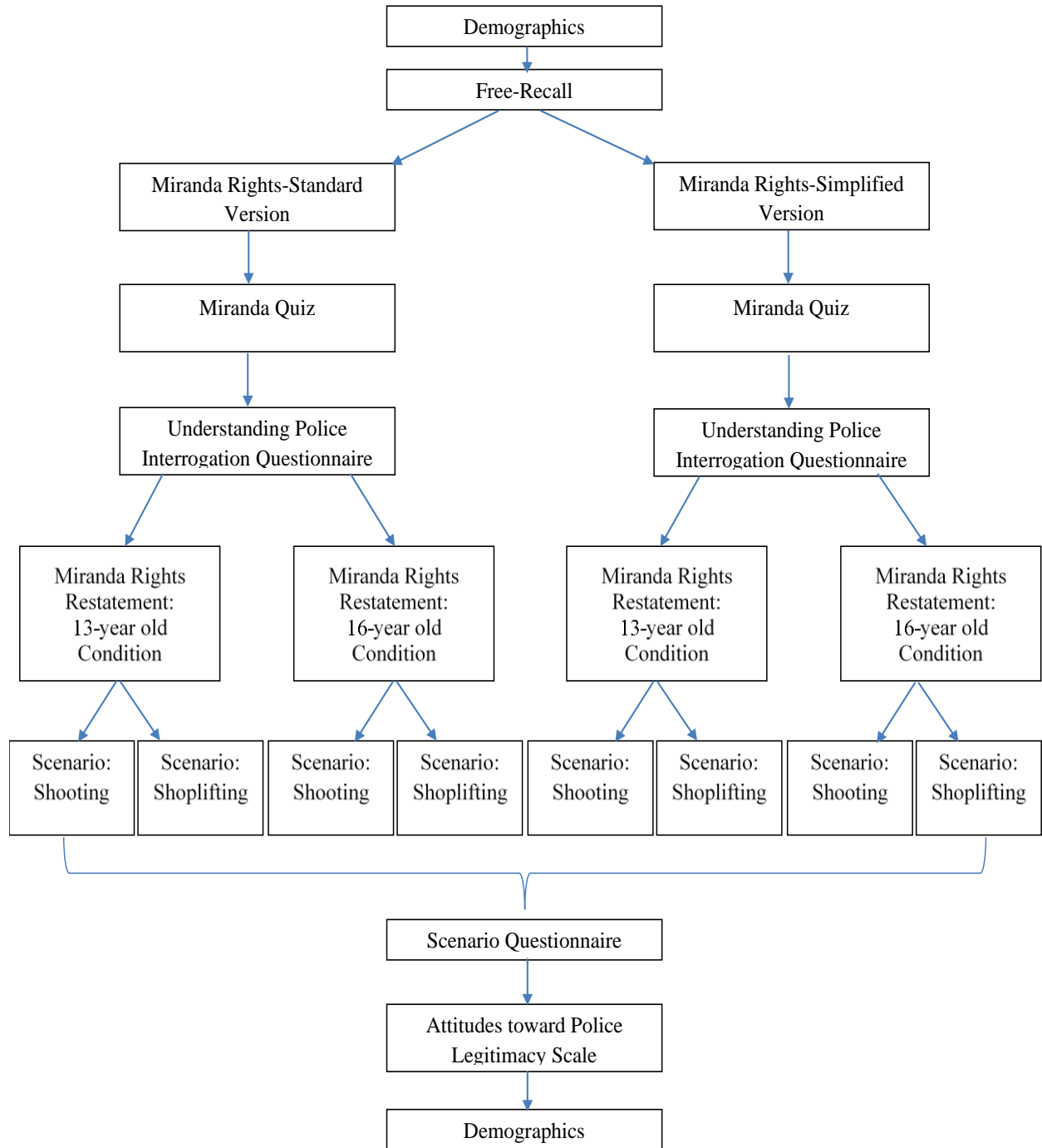


Figure 1 Materials Visualization

Miranda Rights Versions

Selection of the simplified Miranda rights version was based on Rogers and colleagues' (2012) research, which examined different versions of warnings from different police jurisdictions across the U.S. (Appendix C). The simplified warning was selected based on frequency analyses of the Miranda rights collected by Rogers and colleagues; the most frequently stated warning was used in this study. The standard version of the Miranda rights was taken from the statements established in *Miranda v. Arizona* (1966) (Appendix D). Participants were randomly assigned to either the standard or simplified version of the Miranda warnings.

Scenarios

Two scenarios, based on Woolard and colleagues' (2018) study, were created. The scenarios provided participants with a possible situation in which they would be responsible for deciding in the best interest of a 13- or 16-year-old brother or son. The first scenario depicted an act of shoplifting committed by a 13- or 16-year-old brother or son (determined by participants' parent-status) and his group of friends. The brother/son is caught with a pair of headphones in his backpack and the police are called to the store. The brother/son is taken to the police station where he is read his Miranda rights (either the standard or simplified version). The second scenario depicted a shooting at the mall, in which a 13- or 16-year-old brother or son (determined by participants' parent-status) is a suspect. The brother/son is taken to the police station to answer questions regarding the shooting and what he saw. He is read his Miranda rights (either the standard or simplified). See Appendix E for the scenarios. Participants were randomly assigned to a scenario and age manipulation. For those who indicated they were

parents, the subject of the scenario was labeled son. For those participants who were not parents, the subject of the scenario was labeled brother.

Scenario Questions

Participants were asked two questions about what they would advise their brother or son to do based on the rights read to him in the scenario. First, a free-response question was used, which allowed participants the ability to provide detail about what they would say to their brother/son. For example, a participant could advise their brother/son “not to talk until a lawyer was there” or to “wait until [the parent] got there.” In order to analyze this item, a 13-code scheme was created to determine themes in participant answers (see Appendix G for list of codes used). Two independent raters coded 20% of responses, achieving inter-rater reliability (Cohen’s kappa; $k = .87$); all disagreements in codes were eventually resolved through discussion. Second, participants were asked a forced-choice question about whether they would advise the juvenile in the scenario to either invoke or waive their Miranda rights.

Next participants’ perception of the juvenile’s understanding of their Miranda right was measured by asking them to estimate how well their brother or son would understand the rights on a 5-point Likert scale, from “would not fully understand any of his rights” (1) to “would fully understand all of his rights” (5) (see Appendix F).

Questionnaires

Demographics

Participants completed two sections of demographic questions. In the first set of demographic questions, participants identified their age and parent status (parent, step-parent,

legal guardian, or not a parent). If the participant identified as a parent, step-parent, or legal guardian, he/she was asked to provide the age(s) of the child/children under his/her care. MTurk participants were asked to provide their current residential zip-code in an effort to connect and analyze MTurk respondent data from Hamilton County, Tennessee (location of host institution) with accuracy of responses on the Understanding Police Interrogations Questionnaire (UPIQ; Woolard, Cleary, Harvell, & Chen, 2008) (see Appendix H).

In the second series of demographic questions, participants completed an attention check in which they were asked to identify the age of the child in the scenario they read. Participants then answered questions regarding prior police questioning, level of contact with individuals in the justice system, gender, race/ethnicity, education, familiarity with police procedure, media exposure, prior training related to rights, questioning procedure, and arrest procedures. Student participants were asked to identify any psychology courses they may have taken at their university which could have pre-exposed them to Miranda rights, police interrogation, or arrest procedure (see Appendix H).

Miranda Rights Knowledge

Free-Recall

Participants were asked to identify their Miranda rights in a free-recall question used to provide an initial assessment of whether participants were aware of their Miranda rights. In order to analyze these data and identify which individual Miranda rights participants recalled, a five-code scheme was created. Two independent raters coded each response for presence or absence of each Miranda right: 0-absent or 1-present.

Given this coding structure, if a participant recalled the Miranda rights as, “*Right to remain silent, right to an attorney, anything you say can be held against you,*” it would be coded as: MR1-1, because the participant included the first Miranda right; MR2-1, because the participant included the second Miranda right; MR3-1, because the participant included the third right; MR4-0 and MR5-0, because the participant did not include the fourth (free counsel) or fifth rights (right to assert the rights at any time). A total score for free-recall was created by adding the total number of present codes, for a total possible score of five.

Miranda Quiz

The Miranda Quiz (Rogers et al., 2010) is a self-report questionnaire in which participants provide true-false responses to a series of statements assessing Miranda right misconceptions. Items on the Miranda Quiz are organized into seven content areas: Right to Silence, Risks of Talking, Right to Counsel, Free Legal Services, Continuing Legal Rights, Misperceptions about Miranda, and Police Practices.

Example item:

Based on the statement you read previously, please answer the following questions: (True/False)

- 1- The statement, “You have the right to remain silent,” means that your silence cannot be used against you at trial.*

To create a total-scale score, 15-primary items from the questionnaire are used (Rogers et al., 2010). Correct answers were coded as a 1 and incorrect answers were coded as a 0. Correct answers were summed to create a total score where a score of 15 indicated perfect Miranda comprehension.

Miranda Rights Restatement

A free-response item was used to measure participants' ability to restate the Miranda rights. This item was informed by the Miranda Rights Comprehension Instrument (MRCI; Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003) and the Comprehension of Miranda Rights-II section of the MRCI (See Appendix I.). Specifically, this item asked participants to explain each statement of their Miranda rights (standard or simplified) to an individual younger than them (a hypothetical 13- or 16- year old son/brother). In order to analyze this item, a three-code scheme was created. Responses for each Miranda right statement were coded for accuracy (0-inaccurate, 1-accurate), and irrelevancy (0-not irrelevant, 1-irrelevant; responses may have relevant information, but included irrelevant information as well). Further, accurate responses for each statement were coded for simplicity (0-similar to standard version, 1-simpler than standard version). Two independent raters coded responses for restatements of the first, third, and fifth Miranda warnings, achieving inter-rater reliability (Cohen's kappa; $k = .93$). A second set of independent raters coded responses for restatements of the second and fourth Miranda warnings, achieving inter-rater reliability (Cohen's kappa; $k = .94$).

Accuracy coding instructions were based on the Comprehension of Miranda Rights-II (CMR-II; Goldstein et al., 2003). The first Miranda right restatement was coded as accurate (1) if the participant included implied choice to talk or stay silent. The restatement was coded as irrelevant (1) if it contained any information pertaining to other Miranda rights, advice, or comments unrelated to the statement at hand. Therefore, the first Miranda right restatement was coded as irrelevant (1) if the participant included the right to an attorney as well as the right to remain silent. Simplicity of the restatement was coded as *similar to the standard version of* Miranda rights if the response contained verbatim wording or vocabulary from the standard

warning (0). The first Miranda restatement was coded as similar to the standard version (0) if the participant restated the right using words like; *right*, *remain*, and *silent*. Restatements in which participants provided an explanation to the right, were coded as simpler than the standard (1). The first Miranda restatement was coded as simpler than the standard version (1) if the participant explained what it meant to remain silent (e.g., *you do not have to talk to the police*). Lastly, word counts of each response were taken into consideration to further examine previous claims that simpler warnings may be longer and potentially more confusing than the standard (Rogers et al., 2012; Winningham et al., 2018). Therefore, a high score for accuracy indicates a better restatement, a high score for simplicity indicates a more understandable restatement, while a high score for irrelevancy indicates more unnecessary information being provided and perhaps a more confusing restatement.

Given this coding structure, if a participant restated the first Miranda right as, “*You don't have to say anything, just be quiet,*” it would be coded as: Accuracy: 1, because the participant implies the choice to remain silent when saying “you don’t have to;” Irrelevancy: 1, because the participant offered extra, irrelevant advice when saying “just be quiet,” and; Simplicity: 1, because the participant rephrased the Miranda right statement without using verbatim wording. Finally, this example would generate a word count of 9 words (see Appendix H for more examples).

Knowledge of Police Interrogation and Procedure

Understanding Police Interrogation Questionnaire

The Understanding Police Interrogation Questionnaire (UPIQ; Woolard, Cleary, Harvell, & Chen, 2008) is a forced choice (yes/no), 17-question assessment that assesses factual and

functional understanding of police interrogation practices, including implications of Miranda warning, police practices, and assumptions about the role of the parent in interrogations. For example, participants were asked “*do police officers have to contact parents when a youth voluntarily goes to the police station to answer questions?*” (see Appendix J).

Because police practices and procedures vary among jurisdictions, factually correct answers for items in the UPIQ must be verified per region. Accuracy for this scale was therefore scored only for participants living in the Chattanooga metropolitan area.

Attitudes Toward Police

The Attitudes Towards Police Legitimacy Scale (ATPLS; Reynolds, Estrada-Reynolds, & Nunez, 2018) was developed to assess attitudes and understand perceptions of the police. Only 12 of the 34-item ATPLS were used for this study; the included 12 items had item-total correlations greater than .80 and the 12 items had a high level of internal consistency, as determined by a Cronbach’s alpha of .96. The 12 items were taken from three of the five components of the ATPLS: bias, quality of interpersonal treatment, and trustworthiness as these components could have an impact on how participants would advise a juvenile in a police interrogation scenario.

On the ATPLS, participants were asked to rate each of the 12 statements on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicated more positive beliefs of police legitimacy. Questions on the ATPLS include “*Police officers usually make fair decisions when enforcing laws*” or “*I’m not afraid to call the police when I need to*” (see Appendix K). This scale was included to assess whether general perceptions of police had any significant effect on participant advice to invoke or waive Miranda rights.

Procedure

Participants were first presented with an informed consent form containing a brief overview of the study, potential risks and benefits, and their rights as participants. After reading the informed consent, participants were asked to click “*I agree*” to continue with the study. If participants chose not to agree they were directed to the end of the survey and were excluded from the study.

Participants who agreed to participate were first presented with the initial demographic questions. They were asked to provide their age and indicate if they were a parent, step-parent, or legal guardian. If participants indicated they were a parent, step-parent, or legal guardian, they were asked to also provide the age(s) of the child/children under their care. MTurk participants were then asked to provide their current residential zip code.

Next, participants were asked to recall the Miranda rights that would be read or said to them when arrested and taken for police questioning. After the Miranda rights free recall question, participants were randomly assigned to one of two Miranda rights versions; the standard version ($n = 214$) or the simplified version ($n = 248$). The Miranda rights versions were presented before participants completed any further questions and participants were instructed to respond to each subsequent question based on the version presented, not their own recollection of Miranda rights. After reading the standard or simplified version of the Miranda rights, participants completed the Miranda Quiz (Rogers et al., 2010) and the 12 items from the UPIQ (Woolard et al., 2008).

Next participants were randomly assigned to an age condition, either a 13-year-old ($n = 233$) or 16-year-old ($n = 229$). Participants were asked to imagine they had a 13- or 16-year-old son or brother (dependent on parent status) and to explain each statement of the Miranda warning

(simplified or standard) to that 13 or 16-year-old. Participants were then randomly presented with either a shoplifting ($n = 249$) or shooting ($n = 213$) scenario that featured that 13- or 16-year-old son/brother. After reading the scenario, participants answered questions about how they would advise their son or brother in the scenario. Finally, participants completed the ATPLS (Reynolds, Estrada-Reynolds, & Nunez, 2018) and the last set of demographic questions.

Analysis Plan

Before testing the hypotheses, an attention check analysis was completed. The attention check was used to ensure that participants had completely and accurately read and comprehended the materials presented. Specifically, the attention check question asked: *“How old was the child in the scenario?”* The attention check question was presented in a free-response fashion where participants would provide the age of the child in the scenario. Only those participants who correctly answered the attention check question were included in further analyses. In addition, an analysis of variance (ANOVA) was conducted to check if understanding of Miranda rights differed between the randomized groups (younger juveniles, older juveniles, shooting crime, shoplifting crime, standard version of Miranda rights, and simplified version of Miranda rights).

The first hypothesis, which focused on whether participants’ perception of juveniles’ understanding of Miranda rights would differ by the juvenile’s age or the complexity of the rights provided, was examined with a 2 (age) by 2 (Miranda rights version) ANOVA. The second hypothesis, which aimed to determine if participants’ advice to invoke or waive Miranda rights was influenced by the juvenile’s age, the severity of the crime, and/or the complexity of the rights provided, was tested with a logistic regression. The logistic regression explains the

degree to which each of the variables (age, crime severity, and language complexity) predict the variability in a participant's likelihood of advising a juvenile to invoke their Miranda rights. For the third hypothesis, an independent samples *t*-test was used to examine how participants' Miranda rights understanding influenced their likelihood of advising the juvenile to invoke their Miranda rights. Furthermore, a series of correlations were used to assess how participants' Miranda rights understanding related to their ability to accurately, relevantly, and simply restate the Miranda rights. Finally, a logistic regression was used to examine how parental status impacted a participant's likelihood of advising the juvenile to invoke their Miranda rights and a series of 2 (parent status) by 2 (Miranda rights version) ANOVAs were used to test how these factors related to their ability to accurately, relevantly, and simply restate the Miranda rights.

In addition to the hypothesis-driven analyses, a series of exploratory analyses were conducted. These included frequency analyses to investigate open-ended responses to the Miranda rights free-recall question and the scenario questions. Furthermore, a logistic regression and one-way ANOVA were conducted to examine the influence of attitudes toward police on participants' advice to invoke or waive Miranda rights. A final frequency analysis was conducted to identify participants' knowledge of juvenile police interrogation.

CHAPTER III

RESULTS

A total of 498 participants completed this study, however, only 93.0% of those participants were included in the analyses. Thirty-five participants incorrectly identified the age of the child in their assigned condition or provided a nonsensical answer to one or more of the open-ended items (i.e., responding “I don’t know” or “idk” in the Miranda rights explanation questionnaire). Those participants were excluded from further analyses.

Miranda Rights Understanding

Miranda rights understanding was relatively high in this study sample. Overall, participants scored an average of 12.30 of a possible 15, on the Miranda Quiz ($M = 12.30$, $SD = 2.02$). The results of a 2 (age condition) x 2 (crime condition) ANOVA, conducted as a randomization check, established that participants’ Miranda Quiz scores did not significantly differ by age condition $F(1, 459) = .02$, $p = .88$, partial $\eta^2 = .000$, or crime condition, $F(1, 459) = .16$, $p = .69$, partial $\eta^2 = .000$, and there was no interaction, $F(1, 459) = .000$ $p = .99$. Thus, there were no pre-existing Miranda knowledge differences between participants in these conditions.

Across each condition, the most frequently missed items were from sections related to police practices (45.4%; 25.5%), free legal services (34.8%), right to an attorney (28.3%), and right to silence (26.6%). These results were consistent with Rogers and colleagues’ (2010) findings.

Previous research identified Miranda rights misconceptions in populations with previous contact with the criminal justice system (Grisso, 1981; Rogers et al., 2010; Winningham et al., 2018). Therefore, an independent samples *t*-test analyzed differences in mean scores of Miranda knowledge among participants who had and had not been previously questioned by police. Miranda Quiz score was statistically significantly higher for participants who had been previously questioned ($M = 12.52, SD = 1.88$) than those who had not been previously questioned ($M = 12.11, SD = 2.13$), $t(461) = 2.15, p < .05, d = 0.2$. Several correlation analyses were conducted to examine relationships between demographic variables and Miranda rights knowledge to identify further differences within the current study's participant sample (See Table 1).

Table 1 Correlation Matrix for Demographic Variables to Miranda Rights Knowledge

	MQ Score	Contact	Familiarity	Media Exposure	Education	Age
MQ Score	1					
Contact	-.14**	1				
Familiarity	.10*	.14**	1			
Media Exposure	-.05	.05	.27**	1		
Education	.13**	-.09	-.04	-.14**	1	
Age	.26**	-.28**	-.03	-.12**	.31**	1

Notes. * $p < .05$ ** $p < .01$

An ANOVA examined the effects of parent participants' Miranda rights knowledge in relation to the age of their children (younger than 12 years of age, 12 to 17 years of age, and older than 17 years of age). The main effect for child's age was not statistically significant, $F(2, 225) = 1.93, p = .15$, partial $\eta^2 = .017$.

Qualitative analysis was conducted on the first open-ended question (i.e., “*To the best of your ability, please state the rights that are read or said to you when you are arrested by police and taken in for questioning*”) using a five-code scheme for the presence of each of the five rights which participants could recall. On average participants recalled at least three of the five Miranda warnings ($M = 3.05$, $SD = 1.21$); only 3.0% of participants recalled the fifth Miranda right; *you can decide at any time to exercise these rights and not answer any questions or make any statements*.

Perceived Juvenile Understanding of Miranda Rights

The first hypothesis focused on whether participants’ perception of juveniles’ understanding of Miranda rights would differ by the juvenile’s age or the complexity of the rights provided. This hypothesis was tested with a 2 (age; 13-year old vs. 16-year old) by 2 (Miranda rights version; standard vs. simplified) ANOVA. Specifically, I predicted that participants would perceive that younger juveniles (13-year old) had less Miranda rights understanding than older juveniles (16-year old). This hypothesis was supported as the ANOVA revealed a statistically significant main effect for age, $F(1, 455) = 10.32$, $p = .001$, partial $\eta^2 = .022$. The means for perceived juvenile understanding for the 13-year old vs. 16-year old were 3.54 ($SE_M = .067$) and 3.84 ($SE_M = .068$), respectively (see Figure 2).

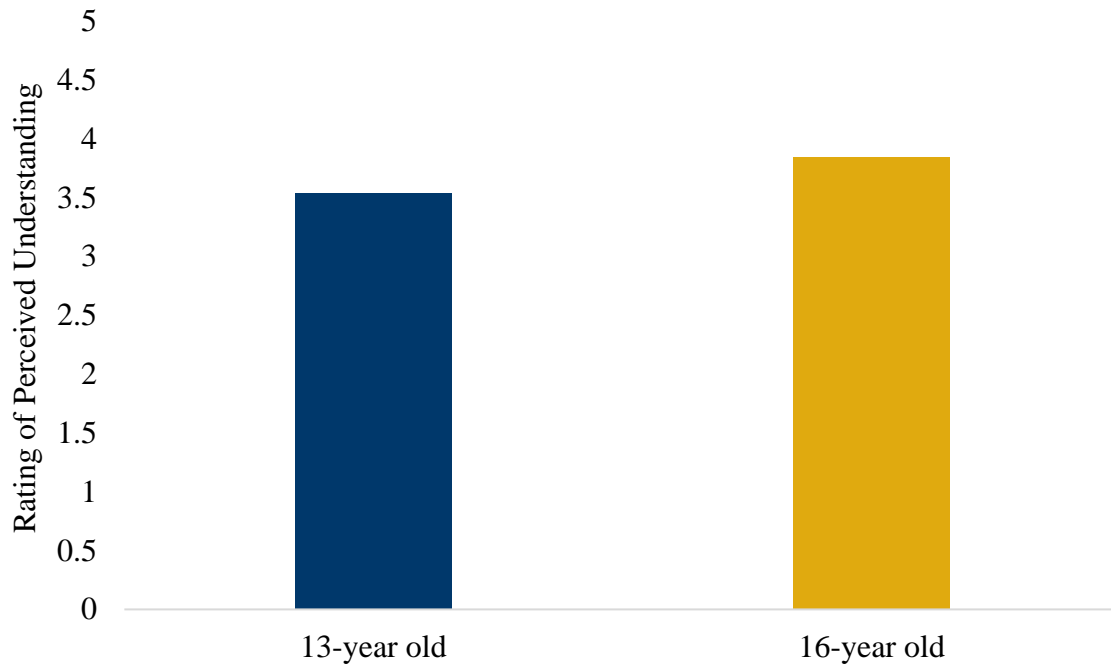


Figure 2 Perceptions of Juvenile Understanding by Age Condition

Very few participants (10 total) indicated that the younger juvenile (13-year old) would not understand any of his Miranda rights, and this was even more true for the older juvenile (16-year old) where only 4 participants indicated that the juvenile would not understand any of his Miranda rights. Further, while only 38 total participants (16%) indicated that a younger juvenile would fully understand their Miranda rights, almost double responded that an older juvenile would (see Table 2 for distribution of responses).

Table 2 Perceived Juvenile Understanding of Miranda Rights by Juvenile Age Condition

Condition	Ratings of perceived understanding				
	Would not understand any	Would understand less than half	Would understand about half	Would understand most but not all	Would fully understand
13yo	10 (4.2%)	32 (13.5%)	53 (22.4%)	104 (43.9%)	38 (16.0%)
16yo	4 (1.7%)	19 (8.2%)	55 (23.7%)	87 (45.5%)	67 (28.9%)

Contrary to the hypothesis however, there was not a main effect of Miranda rights version, $F(1, 455) = .08, p = .77$, partial $\eta^2 = .000$, nor was there an interaction between age and Miranda rights version, $F(1, 455) = .56, p = .46$, partial $\eta^2 = .001$ on participants' perceived juvenile understanding (see Table 3 for means and standard deviations).

Table 3 Mean Scores of Perceived Understanding Across Miranda Rights Version

Condition	Standard Miranda rights	Simplified Miranda rights
13-year old	3.51 (<i>SD</i> = 1.10)	3.56 (<i>SD</i> = .99)
16-year old	3.89 (<i>SD</i> = .97)	3.79 (<i>SD</i> = 1.03)

As an exploratory analysis, I also examined whether participants' parental status and their own Miranda rights knowledge would impact their perception of Miranda rights understanding in juveniles. A linear regression was conducted to understand the effects of Miranda rights knowledge (MQ score) and parent-status (parent vs. non-parent) on ratings of perceived juvenile understanding of Miranda rights. The linear regression established that parent status and Miranda rights knowledge were not indicative of perceived understanding, $F(2, 456) = 1.61, p = 0.2$. These findings did not support the hypothesis; perceptions of juvenile understanding were not affected by participants' Miranda rights knowledge nor their parent-status.

Likelihood of Advising Juveniles to Invoke Miranda Rights

The second hypothesis aimed to determine if participants' advice to invoke or waive Miranda rights was influenced by the juvenile's age, the severity of the crime, and/or the complexity of the rights provided. To test this hypothesis, I first conducted a chi-square analysis

to identify whether frequencies to invoke or waive Miranda rights would differ between age conditions, crime conditions, Miranda rights versions, participant source, et cetera (see Table 4).

Table 4 Percentage of Advice Across Conditions and Demographics

	Invoke (<i>n</i> = 429)	Waive (<i>n</i> = 34)
Age Condition		
13-year old	92.7	7.3
16-year old	92.6	7.4
Crime Condition		
Shoplifting	91.2	8.8
Shooting	94.4	5.6
Miranda Rights Version		
Standard	91.6	8.4
Simplified	93.6	6.4
Source		
MTurk	95.2	4.8
Student	88.2	11.8
Parent-status		
Parent	95.7	4.3
Non-parent	89.6	10.4
Child Age Range		
Younger than 12 years	98.4	1.6
Between 12 and 17 years	93.3	6.7
Older than 17 years	97.7	2.3
Gender		
Male	95.5	4.5
Female	91.5	8.5

To test whether the factors of juvenile’s age, severity of the crime, and/or Miranda rights version would explain significant proportions of variance in the participants’ advice to either invoke or waive the Miranda rights, a logistic regression was used. The logistic regression model was not significant, $\chi^2(6) = 5.4, p = .49$. The model explained 1.3% (Nagelkerke R^2) of the

variance in advice to invoke or waive and correctly classified 92.7% of advice decisions. Of the three predictors, none were statistically significant. This may be due to a ceiling effect, as the majority of participants advised the juvenile to invoke his Miranda rights (92.7%). The area under the ROC curve was not discriminant for age condition (0.5; 95% CI, 0.4 to 0.6), and had poor discrimination for crime (.56; 95% CI, .46 to .66), and Miranda rights version (.54; 95% CI, .44 to .64).

Because so few participants advised waiving Miranda rights, I examined the characteristics of the individuals who did so. Descriptive results showed that 70.6% of participants who advised the juvenile to waive his Miranda rights were non-parents and were more likely to do so when presented with the shoplifting scenario (64.7%) than the shooting scenario (35.3%). Nearly 62% of participants who advised the juvenile to waive his Miranda rights had not been previously questioned by police, while 38.2% had. The majority of participants who advised to waive Miranda rights (76.5%) selected *moderately familiar* from the list of response-options regarding their familiarity with police interrogation procedure. A further 35.3% indicated having prior training or coursework related to rights, questioning procedure, or arrest procedure. Though a small portion of participants advised to waive Miranda rights, they frequently also advised the juvenile to *do not say anything/do not talk* (67.6%) or to *ask/wait for a lawyer* (55.9%), a common theme identified among participants who advised to invoke Miranda rights. When comparing advice across age condition, participants almost equally advised younger and older juveniles to *do not say anything/do not talk* (76.5% and 77.3%, respectively) and to *ask/wait for a lawyer* (younger = 75.6%; older = 76.4%). However, participants in the older juvenile condition, commonly advised them to *tell the officers the truth/be honest* (6.6% compared to 4.3% in the younger juvenile condition) and indicated the

juvenile should decide whether to talk or not (4.4% compared to 3.0% in the younger juvenile condition). Most commonly in the younger juvenile condition, participants advised to *wait for a parent* (26.5% compared to 22.3% in the older juvenile condition). When examining Miranda rights knowledge and parent-status as predictors for advice, neither were significant.

A second, exploratory, frequency analysis was conducted on the qualitative data provided by participants when they were asked, *how would you advise your brother (or son) based on the rights read to him?* The most common themes for participants who advised waiving Miranda rights were *Do not say anything/Do not talk* ($N = 25$, 67.6%) and *Ask/Wait for a lawyer* ($N = 22$, 59.5%). Another frequency analysis was conducted on the qualitative data to determine if differences existed between age conditions (13- vs. 16-year old). Participants in both conditions advised the juvenile *Do not say anything/Do not talk* ($N_{13} = 76.7\%$, $N_{16} = 77.4\%$) and *Ask/Wait for a lawyer* ($N_{13} = 75.0\%$, $N_{16} = 76.9\%$). Participants advised the juvenile to *Wait for a parent* somewhat more in the 13-year old condition (25.8%) compared to the 16-year old condition (22.2%). Participants advised the juvenile to *tell the officers the truth/be honest* slightly more in the 16-year old condition (6.4%) than the 13-year old condition (4.2%). Participants indicated that the *Juvenile should decide whether to talk or not* somewhat more often in the 16-year old condition (4.7%) than in the 13-year old condition (2.9%). (See Table 5 for advice themes with rights advice and parent status).

Table 5 Percentage of Advice Themes Across Rights Decision and Parent-Status

Advice Theme	Invoke (<i>n</i> = 429)	Waive (<i>n</i> = 34)	Parent (<i>n</i> = 233)	Non-Parent (<i>n</i> = 230)
Do not say anything/Do not talk	77.6	67.6	78.5	75.2
Juvenile should decide whether to talk or not	4.0	0.0	1.7	5.7
Do not answer incriminating questions	2.3	0.0	0.9	3.5
Don't admit to anything	0.7	0.0	1.3	0.0
Admit to the crime	1.4	0.0	.90	1.7
Ask/Wait for lawyer	77.6	55.9	78.5	73.5
Wait for parent	24.5	23.5	25.8	23.0
Stay calm	0.5	2.9	1.3	0.0
Tell the officers the truth/Be honest	5.4	5.9	4.3	6.5
Be polite and respectful	0.9	0.0	1.7	0.0
Answer the police officers' questions	1.2	8.8	1.7	1.7
Ask if the officers read him his rights	0.9	0.0	0.9	0.9
The police can be coercive/Distrust the police	4.2	2.9	3.0	5.2

Participant Miranda Rights Understanding

For the third hypothesis, an independent samples *t*-test was used to examine how participants' Miranda rights understanding influenced their likelihood of advising the juvenile to invoke their Miranda rights. Though I had predicted that participants with a better understanding of Miranda rights would also be more likely to advise the juvenile in the scenario to invoke his Miranda rights, the *t*-test was not statistically significant, $t(461) = 1.80, p = .07, d = .31$. Of those

who advised the juvenile to invoke his Miranda rights the mean Miranda quiz score was 12.35 ($SD = 2.01$) while the mean Miranda quiz score for those who advised the juvenile to waive his Miranda rights was 11.71 ($SD = 2.08$).

Furthermore, a series of correlations were used to assess how participant's Miranda rights understanding related to their ability to accurately, relevantly, and simply restate the Miranda rights. These correlations were not significant for accuracy ($r = .08, p = .09$) or irrelevancy ($r = -.03, p = .55$), however the correlation between Miranda Quiz scores and simplicity scores was significant ($r = 0.2, p < .01$).

Parent Status as a Predictor for Advice

For the fourth hypothesis, I predicted that parent participants with high Miranda rights knowledge would be more likely to advise juveniles to invoke their Miranda rights. This hypothesis was not supported. Parent participants had significantly higher Miranda Quiz scores compared to non-parents (parents: $M = 12.54, SD = 1.96$; non-parents: $M = 12.06, SD = 2.06$), $t(461) = 2.59, p = .01$, indicating greater Miranda rights comprehension in parent participants than non-parents. However, a logistic regression demonstrated that neither parent status (parent vs. non-parent) or Miranda quiz score significantly predicted their likelihood of advising juveniles to invoke Miranda rights, $\chi^2(8) = 1.44, p = .99$. In fact, the area under the ROC curve was not discriminant for parent-status (.39; 95% CI, .29 to .48), and indicated poor discrimination for Miranda rights knowledge (.59; 95% CI, .49 to .69).

The final analyses to test the fourth hypothesis involved a series of three, 2 (parent status) x 2 (Miranda rights version) ANOVAs to assess how these factors related to participants' ability to accurately, relevantly, and simply restate the Miranda rights. The 2 x 2 ANOVA for

accuracy of restatements revealed a significant main effect for Miranda rights version; participants presented with the standard Miranda rights version provided more accurate restatements, $F(1, 458) = 9.02, p < .01, \text{partial } \eta^2 = .019$. The main effect for parent-status; $F(1, 458) = 3.47, p = .06, \text{partial } \eta^2 = .008$, and the interaction; $F(1, 458) = 1.74, p = .19, \text{partial } \eta^2 = .004$, were not significant. The main effect of Miranda rights version on participants' simplicity of restatements was also statistically significant, $F(1, 431) = 6.18, p = .01, \text{partial } \eta^2 = .014$. Parent-status also had a significant main effect on simplicity of restatements, with non-parents providing more simplified restatements, $F(1, 431) = 4.54, p = .03, \text{partial } \eta^2 = .01$, however, the interaction for Miranda rights version and parent-status was not significant, $F(1, 431) = .99, p = .32, \text{partial } \eta^2 = .002$. The final 2 x 2 ANOVA for irrelevancy of restatements revealed a significant main effect for Miranda rights version; participants presented with the simplified version provided more irrelevant restatements, $F(1, 458) = 16.65, p < .001, \text{partial } \eta^2 = .04$. The main effect for parent-status; $F(1, 458) = 2.96, p = .09, \text{partial } \eta^2 = .006$, and interaction; $F(1, 458) = .14, p = .71, \text{partial } \eta^2 = .000$, were not significant.

Other Factors that Influence Restatements of Miranda Rights

Additional exploratory analyses with age condition and Miranda version were conducted to identify other factors that could influence quality of restatements. Participants assigned to the 13-year old condition provided more accurate ($M = 3.40, SD = 1.28, p < .001$), more relevant ($M = 1.78, SD = 1.29, p < .05$), and more simplified ($M = 2.38, SD = 1.24, p < .05$) restatements of Miranda rights than participants assigned to the 16-year old condition.

A 2 (age) x 2 (Miranda rights version) ANOVA was conducted to identify effects of age condition and Miranda rights version on participant accuracy, irrelevancy, and simplicity of

Miranda restatements. Participants provided more accurate explanations when presented with the standard version of Miranda rights or restated to a younger juvenile. Participants who provided accurate restatements, tended to use simpler language if presented with the simpler Miranda version or restated to younger juveniles. Lastly, participants included more irrelevant information when presented with the standard version or restated to an older juvenile.

A main effect for the age condition was significant, $F(1, 458) = 14.69, p < .001$, partial $\eta^2 = .03$; participants in the 13-year old condition provided significantly more accurate restatements than participants in the 16-year old condition ($p < .05$) (See Figure 3). Main effects for Miranda rights version were also statistically significant, $F(1, 458) = 17.27, p < .05$, partial $\eta^2 = .20$; where participants presented with the standard Miranda warning provided more accurate restatements.

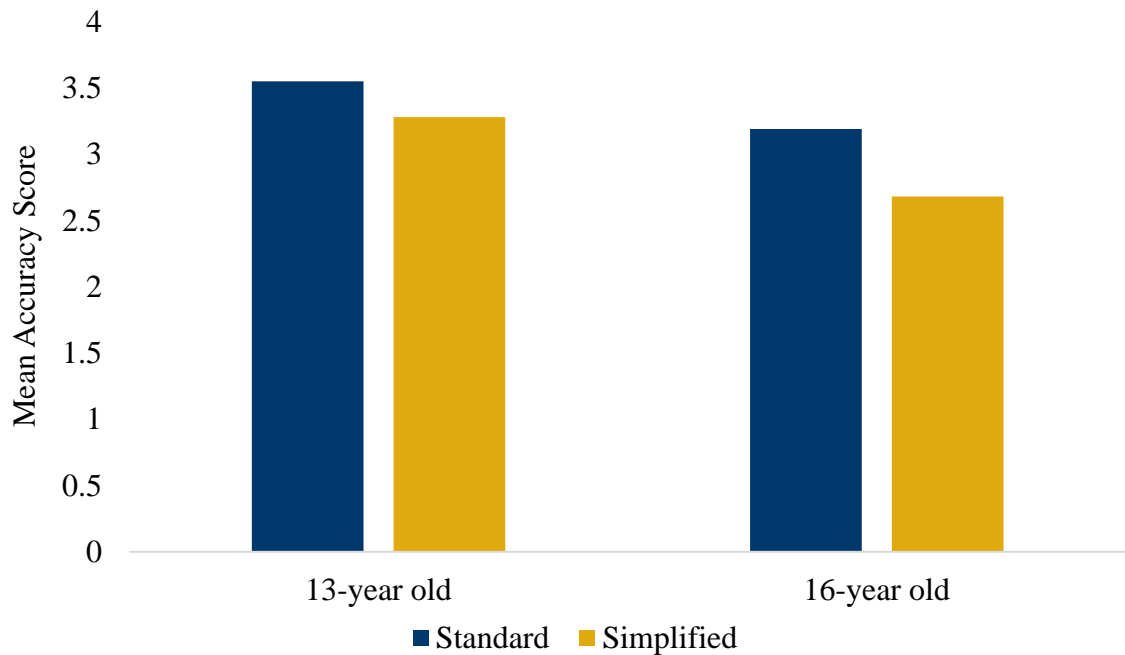


Figure 3 Accuracy of Restatements by Age Condition and Miranda Rights Version

Analysis for simplicity also revealed significant main effects for age condition, $F(1, 431) = 4.11, p < .05$, partial $\eta^2 = .01$ and Miranda rights version: $F(1, 431) = 6.64, p < .05$, partial $\eta^2 = .02$ (See Figure 4). Participants in the 16-year old condition provided similar restatements to standard warning than in the 13-year old condition ($p < .05$). Participants presented with the standard warning provided similar restatements to the standard warning compared to participants presented with the simplified warning who provided more simplified statements ($p < .05$).

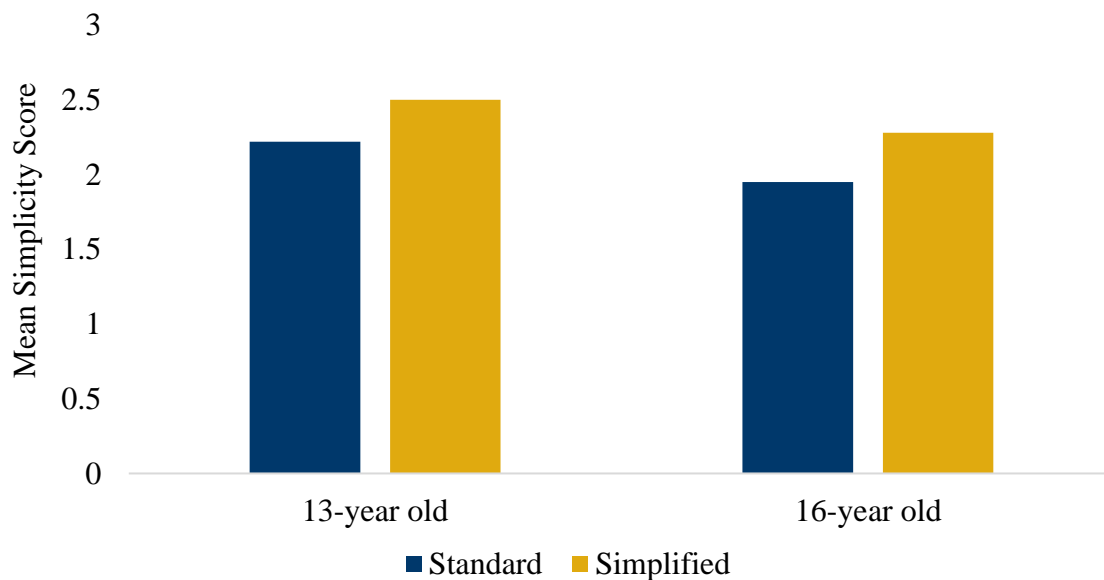


Figure 4 Simplicity of Restatements by Age Condition and Miranda Rights Version

The analysis for irrelevancy of Miranda restatements also showed a significant main effect for age condition, $F(1, 458) = 4.43, p < .05$, partial $\eta^2 = .01$, and Miranda rights version: $F(1, 458) = 17.16, p < .001$, partial $\eta^2 = .04$ (See Figure 5). Participants in the 16-year old condition provided significantly more similar to the standard warning irrelevant information in their restatements than participants in the 13-year old condition ($p < .05$). And as seen in the

accuracy analysis, participants provided significantly more irrelevant information when presented with the standard warning provided restatements more similar to the standard warning compared to participants presented with version than the simplified ($p < .001$).

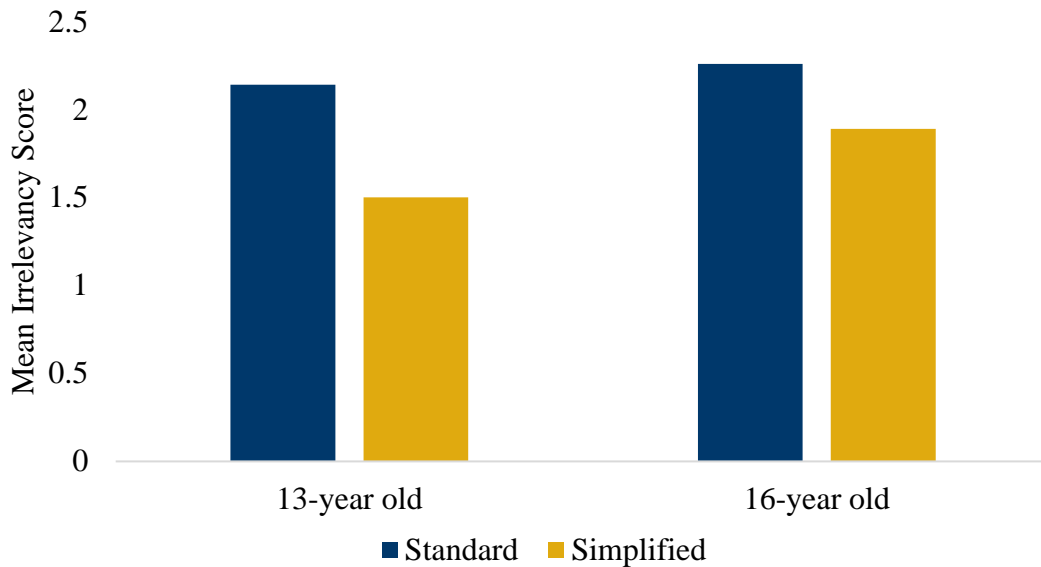


Figure 5 Irrelevancy of Restatements by Age Condition and Miranda Rights Version

Initial descriptive analyses identified the majority of participants (51.5%) provided at least three accurate restatements of the Miranda rights statements ($M = 3.17$, $SD = 1.38$). Less than one-fifth of participants (15.3%) provided accurate restatements of all five rights. Again, simplicity of restatements was coded only for participants who provided accurate restatements. Participants who provided accurate restatements also provided at least two simplified restatements ($M = 2.25$, $SD = 1.25$), and 1.9% provided simplified restatements for all five rights. Lastly, on average participants provided just under two irrelevant restatements in their responses ($M = 1.92$, $SD = 1.33$), and 2.6% provided irrelevant information in all five rights.

Previous research has indicated that simplified versions of Miranda rights tend to be longer in word count, possibly leading to more confusion in understanding of these rights and taking away from the true meaning of the rights (Rogers et al., 2012; Winningham et al., 2018). An exploratory analysis of word count for participants responses was conducted to examine relationships between accuracy, irrelevancy, and simplicity ratings and length of restatements. Participants provided an average of 91 words in their restatements of Miranda rights ($M = 90.71$, $SD = 47.87$), with the longest restatement being 367 words total. A correlation analysis revealed significant relationships for accuracy ($r = .29$, $p < .01$), irrelevancy ($r = .21$, $p < .01$), and simplicity ($r = .28$, $p < .01$) of restatements to word count totals; longer responses were more accurate, simpler, and contained more irrelevant information. To further examine these relationships, a linear regression was conducted to examine the effects of accuracy, irrelevancy, and simplicity on word count. The linear regression showed accuracy, irrelevancy, and simplicity scores were significantly predictive of word count, $F(3, 431) = 48.62$, $p < .001$.

An independent samples *t*-test revealed participants provided slightly shorter restatements when presented with the simplified Miranda rights ($M = 89.82$, $SD = 49.02$) compared to the standard version ($M = 91.74$, $SD = 46.59$), though these differences were not significant ($p = .67$), which did not support the hypothesis. Finally, a correlation analysis was conducted to examine the relationship between Miranda rights knowledge (MQ score) and word count total. This analysis revealed a significant relationship ($r = .14$, $p < .01$), indicating higher Miranda rights knowledge increased word count totals.

Attitudes Towards Police

An exploratory analysis of participants' attitudes toward police was conducted to assess if attitudes were predictive of participants' advice to juveniles to invoke or waive Miranda rights. A mean score for the Attitudes Towards Police Legitimacy Scale (Reynolds et al., 2018) was created by averaging the responses to the 12-items, higher scores indicated more positive attitudes towards police. A logistic regression was conducted to examine if participants' attitudes towards police predicted their advice to invoke or waive Miranda. The logistic regression established that attitudes towards police did not statistically predict advice to juveniles, $\chi^2(8) = 4.52, p = .81$. The model explained 0.0% (Nagelkerke R^2) of the variance in advice to invoke or waive and correctly classified 92.7% of advice decisions. The area under the ROC curve was not discriminant for age condition (.52; 95% CI, .42 to .62).

Overall participants had neutral attitudes towards police ($M = 4.36, SD = 1.32$). As indicated by a one-way ANOVA, a main effect of participant source was statistically significant, $F(2, 460) = 4.14, p < .05$, partial $\eta^2 = .018$; student participants indicated more negative attitudes toward police than the MTurk participants. These differences could be due to training or coursework related to rights, question procedures, and arrest procedure, as indicated by participants, as students indicated having more training (52.1%) than MTurk participants (11.6%). Due to unequal sample sizes between participants who indicated they had or had not been previously questioned by police, a Mann-Whitney U test was conducted to identify differences in means in attitudes toward police. Attitude scores were statistically significantly more positive in participants who had not been previously questioned (mean rank = 252.94) and participants who had been previously questioned (mean rank = 208.46), $U = 31,836.00, z = 3.57, p = .06$.

Understanding of Police Interrogation

An initial analysis to identify participants in Hamilton County, TN revealed no MTurk participants lived within this area. Therefore, we could not examine accuracy for responses to the Understanding Police Interrogation Questionnaire (Woolard et al., 2008) since correct responses on the UPIQ are jurisdiction specific. Instead frequency analyses for belief in statements on the UPIQ were conducted, specifically between parent and non-parent participants. This analysis was done to compare knowledge of juvenile interrogation between parent and non-parent participants, as parents and non-parents can act as an interested adult in police interrogation (*Gallegos v Colorado*, 1962). Therefore, they should be knowledgeable about juvenile police interrogation procedure. Overall, 82.3% of participants do not believe *a youth has to answer a police officer's questions if the youth voluntarily agrees to go to the police station*. 84.7% of participants do not believe *a youth has to answer a police officer's questions if the police arrest the youth and take him to the police station*. Nearly ten percent of participants believe *a youth cannot change his mind and stop the interview if he has already started to answer police officer's questions*. Thirty-six percent believe *police cannot lie to a youth during an interview* and 86.8% of participants believe *a youth can get up and leave while a police officer is questioning him if the police arrest the youth and take him to the police station*. Though many statements on the UPIQ are jurisdiction specific, there are a few which apply across the U.S. (i.e., police can lie during interviews, youth cannot leave interrogation if they are under arrest and in custody). Interestingly, only 62.2% of parent and 66.1% of non-parent participants, believe that police cannot lie to a youth during an interview; a practice used frequently across the United States (Woolard et al., 2008) (See Table 6 for distribution among parent vs. non-parent participants).

Table 6 Percentage of Belief of UPIQ Statements by Parent vs. Non-Parent Participants

UPIQ Item	Yes Responses	
	Parent (%)	Non-parent (%)
Does a youth have to answer a police officer's questions if the youth voluntarily agrees to go to the police station?	14.6	20.9
Does a youth have to answer a police officer's questions if the police arrest the youth and take him to the police station?	13.3	17.4
If a youth starts to answer a police officer's questions, can he change his mind and stop the interview?	93.1	87
Can the police lie to a youth during an interview?	62.2	66.1
Do police officers have to contact parents when a youth voluntarily goes to the police station to answer questions?	66.5	59.6
Do police officers have to contact parents when a youth is arrested and taken to the police station for questioning?	85.4	87.4
Do police officers have to wait for a parent to arrive at the station before questioning a child?	54.5	53
Do police officers have to tell parents if their children are being viewed as suspects?	66.5	69.6
Can a parent decide to be present when police question a youth at the police station, even if the child doesn't want the parent there?	83.7	75.2
Can a youth get up and leave while a police officer is questioning him if the youth voluntarily agrees to go to the police station?	65.7	63
Can a youth get up and leave while a police officer is questioning him if his parent takes him to the police station?	53.2	48.7
Can a youth get up and leave while a police officer is questioning him if the police arrest the youth and take him to the police station?	11.6	14.3

CHAPTER IV

DISCUSSION

Understanding of Miranda rights is of vital importance to the public as any individual detained and questioned by the police is entitled to these rights. Previous research shows adults and particularly juveniles have a limited understanding of Miranda rights, which raises the concern of whether they are able to provide informed, “knowing and intelligent” waivers of these rights during police questioning. Furthermore, the safeguard of the presence of an ‘interested adult’ may not be beneficial to the juvenile if the adult does not understand his/her rights. If adults have limited understanding or overestimate juveniles’ understanding of Miranda warnings, then the presence of an ‘interested adult’ may not provide an adequate safeguard.

The current study sought to address three research questions. First, I was interested to determine how adults perceive juveniles’ ability to understand Miranda rights. I hypothesized that participants would indicate younger juveniles to have less Miranda understanding than older juveniles, specifically within the standard Miranda rights version. Second, I wanted to know how adults would advise juveniles in a police interrogation scenario. I predicted that adult participants would be more likely to advise younger juveniles to invoke their Miranda rights than older juveniles. Further, I expected crime severity and Miranda rights version to influence advice to juveniles, with more juveniles advised to invoke their rights for the serious crime and when the simplified warning was used. Lastly, I was interested in examining if participant-related characteristics supported better explanations of Miranda rights and better advice to juveniles. I

hypothesized that participants with higher Miranda rights knowledge would provide better restatements and be more likely to advise juveniles to invoke their Miranda rights. In addition, I hypothesized that parent-participants would provide better restatements and advise juveniles to invoke Miranda rights.

In the present study, participants perceived lower Miranda rights understanding in younger (13-year old) juveniles than older (16-year old) juveniles as expected. When comparing across Miranda rights versions participants still perceived lower Miranda rights understanding in younger juveniles, regardless of standard or simplified conditions. On average, participants perceived juveniles to understand at least half of the Miranda rights statements, regardless of age manipulation or Miranda rights manipulation.

Further, participants with higher Miranda rights knowledge, perceived higher Miranda rights understanding in juveniles. This may pose as problematic in real situations of police interrogation where the parent may incorrectly assume the juvenile understands Miranda rights sufficiently. Though parent participants in the current study did perform better on the Miranda Quiz than non-parent participants, their scores still demonstrated some misconceptions in understanding of Miranda rights. Thus, their benefit when acting as an interested adult on behalf of a juvenile may be overestimated (Grisso, 1981; Woolard et al., 2008).

Consistent with previous research, adults' Miranda rights knowledge was incomplete and supports that Miranda misconceptions are still held despite increased media coverage and increased attention to wrongful conviction cases (Cavanagh & Cauffman, 2017; Cleary & Warner, 2017; Rogers et al., 2013; Rogers et al., 2010). While participants in this study had relatively high scores compared to previous research on the Miranda Quiz, the average score may not be of benefit to participants in a real-life situation in which they would need to know all

of their Miranda rights (e.g., if participants were under arrest and taken in for police questioning). Miranda rights knowledge was significantly higher in participants who had been previously questioned by police compared to participants who had not been previously questioned by police, indicating individuals with exposure to interrogation are more knowledgeable about their rights. These results contrast with those of Rogers and colleagues (2010) and Winningham and colleagues (2018), who found that familiarity with police procedure or contact with the criminal justice system was not indicative of increased Miranda rights knowledge. As age and education level increased, participants' Miranda rights knowledge also increased. Participants who had children older than 17 years of age tended to score higher on the Miranda Quiz than other parent participants; again, this could be indicative of the age-related performance on Miranda rights knowledge, where older participants in general may be more knowledgeable about legal rights than younger participants.

When comparing Miranda rights restatements to the Miranda rights version, participants provided more accurate and relevant responses in the standard warning condition but provided more simplified restatements in the simplified warning condition. This supports Winningham and colleagues' (2018) findings that there are some advantages to using simplified Miranda rights, in that explanations to juveniles were more simplistic when participants were presented with the simplified Miranda warning compared to the standard Miranda warning. Overall, participants provided more accurate, relevant, and simplified responses in the 13-year old condition, with the difference between age conditions being significant. This finding was encouraging as it indicates adults are not only aware of age differences in Miranda understanding but also attempt to accommodate for these differences in their explanations of Miranda rights. Further analyses indicated no relationship between participants' Miranda rights knowledge and

accuracy or relevancy of restatements, but as Miranda rights knowledge increased, so did simplicity of restatements. In regard to the use of simplified Miranda warnings, adult participants still demonstrated difficulty accurately explaining the rights to a juvenile. The common inclusion of irrelevant information in the restatements of individual Miranda rights, could lead to further confusion on the part of the juvenile- trying to understand more information or vocabulary than is relevant to the Miranda right may contribute to further misunderstanding of the rights overall. The majority of participants were able to simplify at least two of the Miranda rights, however, the remaining participants were still using wording or vocabulary similar to standard Miranda warnings. As noted in previous research, this shows that both the standard and simplified warnings may be too complex for understanding by juveniles (Zelle et al., 2014).

The majority of participants advised juveniles to invoke their Miranda rights; however participants advised younger juveniles somewhat more frequently to invoke their Miranda rights than older juveniles. Of the 34 total participants who advised to waive Miranda rights, more were non-parents, in the less serious shoplifting crime scenario, and had not been previously questioned by police.

Overall, participants held neutral attitudes towards police, with student participants holding more negative attitudes than the MTurk sample. Positive attitudes towards police were significantly higher in participants who had not been previously questioned by police, as well as participants who indicated having less media exposure to police interrogation and procedure. However, attitudes toward police was not a significant indicator of advice to invoke or waive Miranda rights; even those who held positive views about the police were likely to advise the juvenile to invoke his rights.

In line with findings from Woolard and colleagues (2008), participants held some potentially problematic beliefs regarding police interrogation procedures for juveniles and juvenile legal rights. Juvenile questioning procedures vary by jurisdiction, and participants in this study came from many different jurisdictions and states. Thus, responses to the Understanding Police Interrogation Questionnaire could not be analyzed as correct or incorrect; instead, responses were analyzed based on overall belief. In order to gauge some accuracy in responses, we consulted with some local Hamilton County legal and law enforcement personnel. Using the items that they all answered consistently as a key, we examined our participants' beliefs to see how they aligned. The majority of participants correctly believed that a youth does not have to answer a police officer's questions if the youth *voluntarily* agrees to go to the police station or if the youth is arrested by police and taken to the police station. However, a large number of participants incorrectly believe a youth *cannot* change his mind and stop the interview if the police already started to ask questions. This is reflective of the free-recall assessment of Miranda rights, as the majority of participants did not identify the fifth Miranda right in their response. Just over a third of participants incorrectly believed that police *cannot* lie to youth during an interview. According to law enforcement personnel, "reasonable" effort must be made in order to contact a juvenile's parent/legal guardian in the event the juvenile is interviewed or taken into police custody; however police *do not* have to wait for the parent/legal guardian to arrive before beginning questioning. While the majority of participants believed police must contact parents, just over half of the participants in this study also believed that police had to wait before beginning questioning. Given the variability in juvenile questioning policies across jurisdictions, it is not surprising that parents are not aware of the specific procedures that should be followed. However, their lack of knowledge may compromise their ability to serve as effective advocates.

Limitations

The largest limitation of the current study is that parents were not advising their own children, instead they were asked to advise a hypothetical child in a hypothetical situation. If parent participants were given a scenario in which their own child were in a police interrogation, the issue of the dual role of protective parent and providing legal aid may be more pronounced (Woolard et al., 2008). The parent may advise differently to his/her own child differently than a hypothetical one, perhaps to teach his/her own child a lesson about committing a crime. Further, parents could give more accurate ratings of perceived understanding and more tailored explanations if they were asked about their own child, as they would know their child's abilities better than a hypothetical child.

Another limitation in this study is the ceiling effect in advice to invoke or waive Miranda rights. The majority of participants (92.7%) advised the juvenile to invoke his Miranda rights. Participants in the study were not provided with a definition of invoke or waive, which could have played a role in the decision made by participants. If participants do not fully understand what invoke or waive mean, or the implications of invoking or waiving Miranda rights, the participants may not have made the most accurate decision, as exemplified by participants who advised to waive Miranda rights but also said *Do not say anything/Do not talk* (67.6%) . Further, if participants did not understand the terms invoke or waive, they may have decided to invoke Miranda rights based on what they know from tv shows, news stories, documentaries, and other media outlets to which they have exposure to police interrogation and legal rights.

Another limitation of the current study is the unequal distribution of ethnic/racial identity among participants; three quarters of participants identified as Caucasian or White. This large sample of white participants is not representative of the population most likely to negatively

interact with police and the criminal justice system. The long-standing tension between law enforcement and the African American community is not reflected in the current study. The name of the study on MTurk, *Knowledge of Legal Rights and Legal Procedure*, may have also deterred individuals of other ethnic/racial identity from participating, due to pre-determined opinions of law enforcement or the criminal justice system.

Unfortunately, because the UPIQ is a jurisdiction-specific measure, accurate ratings of correct and incorrect responses could not be calculated. Even after consulting with local legal and law enforcement personnel, not all items on the UPIQ could be scored for correct or incorrect responses in our district. Further consultation with legal and law enforcement working within the juvenile justice system may provide clearer answers to some of the items. However, their lack of agreement on these answers could reflect a lack of awareness of procedures even among legal and police personnel, which may result in inconsistent implementation.

Future Directions

Despite the limitations of the present study, it expands upon the controversy surrounding the procedural safeguard of an interested adult (Woolard et al., 2008), as well as added to previous research confirming inadequate Miranda rights knowledge and knowledge of legal procedure (Cavanagh & Cauffman, 2017; Cleary & Warner, 2017; Rogers et al., 2013; Rogers et al., 2010). Further research is needed to address several missing components in the current study and previous research. Future studies should include clear definitions of, not only the words invoke and waive, but also the implications of invoking or waiving Miranda rights, specifically. This would reduce the likelihood of a ceiling effect and perhaps be more representative of understanding what rights mean. Future research should look more closely at the types of media

exposure participants may have with police interrogation. The current study only identified sources of media and how much exposure but did not look specifically at comparisons of sources of media. There may be differences in media source (i.e., documentaries such as *When They See Us*; Skoll et al., 2019) in terms of how legal procedure and police interrogation are depicted which may influence participants' advice and decisions to invoke or waive Miranda rights.

In addition, future studies should manipulate gender, as well as age and crime condition. The current study asked participants to provide advice and restatements based on a male, younger brother or son. In the crime condition, a male, brother or son was depicted. The current study utilized only two crimes- shoplifting or shooting; future researchers may want to investigate other types of crime, violent or non-violent, sexual or non-sexual crimes. Further crime manipulations and gender manipulations may alter participants responses; participants may provide advice differently to females in more violent crimes or sexual-based crimes. Manipulating the race of the individual in a scenario may also induce different responses based on inter- and intra-race perceptions and attitudes.

Lastly, future studies should examine how advice and perceived understanding responses may differ from these results if the participant were asked to advise his/her own child, rather than a hypothetical child of a given age. The current study attempted to create a realistic parent-child scenario by asking parent-participants to advise a hypothetical child and by asking non-parent participants to advise a hypothetical younger brother. The brother manipulation was done to accommodate the student sample as students would not be able to provide advice or ratings of perceived understanding of a hypothetical child just a few years younger than the student. In some instances, however, if the parents are unavailable to come to the police station to aid the child in custody, an older sibling may be called upon to aid. If parent participants were given a

scenario in which their own child were in a police interrogation, the issue of the dual role of protective parent and providing legal aid may be more pronounced (Woolard et al., 2008). The parent may advise differently to his/her own child differently than a hypothetical one, perhaps to teach his/her own child a lesson about committing a crime. Further, parents could give more accurate ratings of perceived understanding if they were asked about their own child, as they would know their child's abilities better than a hypothetical child.

Conclusion

Previous research has demonstrated poor knowledge of legal procedure and legal rights in adult and juvenile populations, regardless of previous exposure to the criminal justice system. Procedural safeguards have been implemented to buffer the effects of limited cognitive abilities and comprehension abilities of juveniles. An interested adult may be present during police questioning to assist the juvenile, and simplified Miranda warnings have been created with the notion of being easier to understand. The current study expands on previous research by demonstrating participants still do not fully understand their rights, nor would they be of benefit to a juvenile in interrogation as very few provided accurate restatements of all Miranda rights, even when presented with the simplified Miranda rights version. On the other hand, participants in the current study realized that juveniles, particularly younger juveniles, would not fully understand their Miranda rights and even accommodated for age differences in their explanations of these rights to the juvenile. Even with limited understanding of Miranda rights, adults may be inclined to advise a juvenile to invoke Miranda rights, which would provide some protection considering that most juveniles decide to waive their Miranda rights. Although the presence of interested adults and provision of simplified Miranda warnings may not completely mitigate the

risks that juveniles face when questioned by police, these reforms show some promise.

Consideration of different reforms is needed in order to further identify ways to best assist juveniles in police interrogation.

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APPENDIX A
IRB APPROVAL LETTER

Institutional Review Board

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TO: Aishani Eggenberger **IRB # 19-117**
Dr. Amye Warren

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Amy Doolittle, IRB Committee Chair

DATE: 9/17/2019

SUBJECT: IRB #19-117: Miranda Rights Comprehension and Advice to Juveniles

Thank you for submitting your application for exemption to The University of Tennessee at Chattanooga Institutional Review Board. Your proposal was evaluated in light of the federal regulations that govern the protection of human subjects.

Specifically, 45 CFR 46.104(d) identifies studies that are exempt from IRB oversight. The UTC IRB Chairperson or his/her designee has determined that your proposed project falls within the category described in the following subsection of this policy:

46.104(d)(2)(i): Research only includes educational tests, surveys, interviews, public observation and recorded information cannot readily identify the subject (directly or indirectly/linked)

Even though your project is exempt from further IRB review, the research must be conducted according to the proposal submitted to the UTC IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an Application for Changes, Annual Review, or Project Termination/Completion form to the UTC IRB. Please be aware that changes to the research protocol may prevent the research from qualifying for exempt review and require submission of a new IRB application or other materials to the UTC IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the UTC IRB as soon as possible. Once notified, we will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event.

The University of Tennessee at Chattanooga is a comprehensive, community-engaged campus of the University of Tennessee System. 

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval.

For additional information, please consult our web page <http://www.utc.edu/irb> or email instrb@utc.edu.

Best wishes for a successful research project.

APPENDIX B

DEMOGRAPHIC VARIABLES BY STUDENT AND MTURK SAMPLES

Demographic Variable	Response Option	Student (<i>n</i> = 169)	MTurk (<i>n</i> = 294)
Age range (<i>Mean</i>)		18-39 (21.23)	18-80 (43.61)
Parent Status	Parent	<i>n</i> = 11 (6.5%)	<i>n</i> = 222 (75.5%)
	Non-Parent	<i>n</i> = 158 (93.5%)	<i>n</i> = 72 (24.5%)
Gender	Female	<i>n</i> = 149 (88.2%)	<i>n</i> = 179 (60.9%)
	Male	<i>n</i> = 19 (11.2%)	<i>n</i> = 115 (39.1%)
Race/Ethnicity	Caucasian/White	<i>n</i> = 127 (75.1%)	<i>n</i> = 224 (76.2%)
	African American/Black	<i>n</i> = 25 (14.8%)	<i>n</i> = 25 (8.5%)
	Latino/Hispanic	<i>n</i> = 9 (5.3%)	<i>n</i> = 20 (6.8%)
	Asian	<i>n</i> = 0 (0.0%)	<i>n</i> = 15 (5.1%)
	Multi-Racial	<i>n</i> = 4 (2.4%)	<i>n</i> = 7 (2.4%)
	American Indian/Alaska Native	<i>n</i> = 1 (0.6%)	<i>n</i> = 3 (1.0%)
	Did not identify	<i>n</i> = 3 (1.8%)	<i>n</i> = 0 (0.0%)
Education	High School	<i>n</i> = 16 (9.5%)	<i>n</i> = 29 (9.9%)
	Some college	<i>n</i> = 107 (63.3%)	<i>n</i> = 76 (25.9%)
	Trade/Vocational/Technical	<i>n</i> = 0 (0.0%)	<i>n</i> = 11 (3.7%)
	Associates	<i>n</i> = 30 (17.8%)	<i>n</i> = 46 (15.6%)
	Bachelors	<i>n</i> = 16 (9.5%)	<i>n</i> = 93 (31.6%)
	Masters	<i>n</i> = 0 (0.0%)	<i>n</i> = 30 (10.2%)
	Professional/Doctorate	<i>n</i> = 0 (0.0%)	<i>n</i> = 9 (3.1%)
Prior Police Questioning	Yes	<i>n</i> = 65 (38.5%)	<i>n</i> = 153 (52.0%)
	No	<i>n</i> = 104 (61.5%)	<i>n</i> = 141 (48.0%)
Contact with Criminal Justice System	None	<i>n</i> = 45 (26.6%)	<i>n</i> = 168 (57.1%)
	Indirect	<i>n</i> = 50 (29.6%)	<i>n</i> = 54 (18.4%)
	Direct	<i>n</i> = 26 (15.4%)	<i>n</i> = 27 (9.2%)
	Close	<i>n</i> = 48 (28.4%)	<i>n</i> = 45 (15.3%)
Familiarity	Not familiar	<i>n</i> = 33 (19.5%)	<i>n</i> = 74 (25.2%)
	Moderately	<i>n</i> = 118 (69.8%)	<i>n</i> = 195 (66.3%)
	Extremely	<i>n</i> = 18 (10.7%)	<i>n</i> = 25 (8.5%)
Media Exposure	< once a week	<i>n</i> = 47 (27.8%)	<i>n</i> = 136 (46.3%)
	Once a week	<i>n</i> = 40 (23.7%)	<i>n</i> = 53 (18.0%)
	At least 2-3 days a week	<i>n</i> = 51 (30.2%)	<i>n</i> = 61 (20.7%)
	At least once daily	<i>n</i> = 23 (13.6%)	<i>n</i> = 32 (10.9%)
	Multiple exposures daily	<i>n</i> = 8 (4.7%)	<i>n</i> = 11 (3.7%)
Prior Training/Coursework	Yes	<i>n</i> = 88 (52.1%)	<i>n</i> = 34 (11.6%)
	No	<i>n</i> = 81 (47.9%)	<i>n</i> = 260 (88.4%)

APPENDIX C
SIMPLIFIED MIRANDA RIGHTS VERSION

Selection of the simplified Miranda rights version were based on Rogers and colleagues' (2012) research which examined different versions of warnings from different police jurisdictions across the U.S.

Simplified Miranda Warning:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

APPENDIX D
STANDARD MIRANDA RIGHTS VERSION

The standard version of the Miranda rights was taken from the statements established in *Miranda v Arizona* (1966).

Standard Miranda Warning:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to talk to a lawyer and have him present with you while you are being questioned. If you cannot afford to hire a lawyer, one will be appointed to represent you before any questioning, if you wish. You can decide at any time to exercise these rights and not answer any questions or make any statements.

APPENDIX E
SCENARIOS

13-year old brother shooting scenario with standard warning:

Read the scenario as if you had a **13-year old brother**:

Your **13-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your brother and his friends in custody. At the station the police read your brother the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

13-year old son shooting scenario with standard warning:

Read the scenario as if you had a **13-year old son**:

Your **13-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your son and his friends in custody. At the station the police read your son the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

16-year old brother shooting scenario with standard warning:

Read the scenario as if you had a **16-year old brother**:

Your **16-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your brother and his friends in custody. At the station the police read your brother the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

16-year old son shooting scenario with standard warning:

Read the scenario as if you had a **16-year old son**:

Your **16-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your son and his friends in custody. At the station the police read your son the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided

for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

13-year old brother shoplifting scenario with standard warning:

Read the scenario as if you had a **13-year old brother**:

Your **13-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that your brother has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your brother is read the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

13-year old son shoplifting scenario with standard warning:

Read the scenario as if you had a **13-year old son**:

Your **13-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that your son has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your son is read the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

16-year old son shoplifting scenario with standard warning:

Read the scenario as if you had a **16-year old brother**:

Your **16-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that your brother has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your brother is read the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

16-year old son shoplifting scenario with standard warning:

Read the scenario as if you had a **16-year old son**:

Your **16-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that your son has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your son is read the following Miranda rights:

You have the right to remain silent. Anything you say can and will be used against you in a court of law. You have the right to an attorney. If you cannot afford an attorney, one will be provided for you. Do you understand the rights I have just read to you? With these rights in mind, do you wish to speak to me?

13-year old brother shooting scenario with simplified warning:

Read the scenario as if you had a **13-year old brother**:

Your **13-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your brother and his friends in custody. At the station the police read your brother the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

13-year old son shooting scenario with simplified warning:

Read the scenario as if you had a **13-year old son**:

Your **13-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours

for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your son and his friends in custody. At the station the police read your son the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

16-year old brother shooting scenario with simplified warning:

Read the scenario as if you had a **16-year old brother**:

Your **16-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your brother and his friends in custody. At the station the police read your brother the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a

good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

16-year old son shooting scenario with simplified warning:

Read the scenario as if you had a **16-year old son**:

Your **16-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that there had been a shooting at the mall and that they have your son and his friends in custody. At the station the police read your son the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

13-year old brother shoplifting scenario with simplified warning:

Read the scenario as if you had a **13-year old brother**:

Your **13-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone

rings. It's the police at the local station. They inform you that your brother has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your brother is read the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

13-year old son shoplifting scenario with simplified warning:

Read the scenario as if you had a **13-year old son**:

Your **13-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that your son has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your son is read the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If

you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

16-year old brother shoplifting scenario with simplified warning:

Read the scenario as if you had a **16-year old brother**:

Your **16-year old brother** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your brother up, when your phone rings. It's the police at the local station. They inform you that your brother has been arrested for shoplifting a pair of wireless headphones from a store in the mall. At the station, your brother is read the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

16-year old son shoplifting scenario with simplified warning:

Read the scenario as if you had a **16-year old son**:

Your **16-year old son** asks if you could drop him off at the mall so he can go shopping with some friends. You oblige and take him to the mall, stating you'll pick him up in about two hours for dinner. He goes into the mall with four of his friends and you return home. About an hour and a half passes and you get ready to drive to the mall to pick your son up, when your phone rings. It's the police at the local station. They inform you that your son has been arrested for

shoplifting a pair of wireless headphones from a store in the mall. At the station, your son is read the following Miranda rights:

You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them. That free lawyer helps you decide if it's a good idea to answer questions. That free lawyer can be with you if you want to talk with me. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

APPENDIX F
SCENARIO QUESTIONS

Brother version

1B. How would you advise your brother based on the rights read to him?

2B. How well do you think your brother understands these rights?

- 1- Would not fully understand any of his rights
- 2- Would understand less than half of his rights
- 3- Would understand about half of his rights
- 4- Would understand most but not all of his rights
- 5- Would fully understand all of his rights

3B. Would you advise your brother to invoke or waive their rights?

- 1- Invoke
- 2- Waive

Son version

1S. How would you advise your son based on the rights read to him?

2S. How well do you think your son understands these rights?

- 1- Would not fully understand any of his rights
- 2- Would understand less than half of his rights
- 3- Would understand about half of his rights
- 4- Would understand most but not all of his rights
- 5- Would fully understand all of his rights

3S. Would you advise your son to invoke or waive their rights?

- 1- Invoke
- 2- Waive

APPENDIX G
CODING THEME FOR OPEN-ENDED ADVICE

1. Do not say anything/Do not talk
2. Wait for parent
3. Do not answer incriminating questions
4. Ask/Wait for lawyer
5. Be polite and respectful
6. Tell the officers the truth/Be honest
7. Admit to the crime
8. Ask if the officers read him his rights
9. The police can be coercive/Distrust in the police
10. Stay calm
11. Don't admit to anything
12. Juvenile should decide whether to talk or not
13. Answer the police officers' questions

APPENDIX H
DEMOGRAPHICS QUESTIONNAIRES

D1. Please identify your age:

D2. Are you a parent/step-parent/legal guardian?

Yes

D2.1 If so, list the age(s) of the child/children under your care?

No

D3. Current residential zip-code:

MC. How old was the child in the scenario?

D4. Have you ever been questioned by the police?

Yes

No

D5. Do you have contact with an individual(s) who work in the Criminal Justice System (police officer, judge, lawyer)?

0- No contact

1- Indirect contact (neighbors, acquaintances, etc.)

2- Direct personal contact (coworkers, classmates, etc.)

3- Close personal contact (close friends, family members, etc.)

D6. Please select your gender:

Female

Male

Other

Prefer not to answer

D7. Please identify your race/ethnicity:

Hispanic or Latino

American Indian or Alaska Native

Asian

Black or African American

Native Hawaiian or Other Pacific Islander

Caucasian or White

Multiracial

Other

Prefer not to say

D8. *Please select your highest level of education:

High school

Some college

Trade/vocational/technical

Associates

Bachelors

Masters

Professional/Doctorate (J.D., Ph.D., Psy. D., M.D., Ed. D., D.P.T., Ed. S., etc.)

D9. Please enter your college major (if applicable):

D10. How familiar are you with police interrogation procedure?

1. Not at all familiar

2. Moderately familiar

3. Extremely familiar

D11. How much media (e.g., newspapers, magazines, tv shows, documentaries, podcasts, social media, etc.) exposure have you had to police questioning/interrogation?

Less than once a week

Once a week

At least two to three days a week

At least one exposure daily

Multiple exposures daily

D12. Have you had any training or taken any college coursework related to your rights, questioning procedures, arrest procedures, etc.?

Yes

No

D13 (SONA). Which of the following Psychology courses have you taken? (Select all that apply)

Psychology and Law

Social Psychology

Cognitive Science

Adolescences

Applied Developmental Psychology

None

D13 (APSU). Which of the following Psychology courses have you taken? (Select all that apply)

Juvenile Offenders

Social Psychology

Forensic Psychology

Adolescent Development

None

APPENDIX I

MIRANDA RIGHTS RESTATEMENT (ADAPTED FROM MIRANDA RIGHTS
COMPREHENSION INSTRUMENT)

Miranda Rights Restatements (Adapted from Miranda Rights Comprehension Instrument; Goldstein, Condie, Kalbeitzer, Osman, & Geier, 2003)

Now, imagine that you have a 13-(or 16) year-old son/brother. How would you explain the following statements to your 13-(or 16) year-old son/brother?

Standard-

1. You have the right to remain silent.
2. Anything you say can and will be used against you in a court of law.
3. You have the right to talk to a lawyer and have him present with you while you are being questioned.
4. If you cannot afford to hire a lawyer, one will be appointed to represent you before any questioning, if you wish.
5. You can decide at any time to exercise these rights and not answer any questions or make any statements.

Simple-

1. You have the right to remain silent, which means that you don't have to say anything. It's OK if you don't want to talk to me.
2. If you do want to talk to me, I can tell the juvenile court judge or adult court judge and Probation Officer what you tell me.
3. You have the right to talk to a free lawyer right now. That free lawyer works for you and is available at any time- even late at night. That lawyer does not tell anyone what you tell them.
4. If you start to answer my questions, you can change your mind and stop at any time. I won't ask you anymore questions.

Example A:

“You do not have to answer any questions. You better not say anything. Get a lawyer. Get a lawyer. Get a lawyer. Stay quite.”

Accuracy-1, Irrelevancy-2, Simplicity-1, Word Count-21

This participant was presented with the standard Miranda version, a 16-year old child, and the shoplifting scenario. This participant also advised to invoke Miranda rights.

Example B:

“You don't have to say anything or answer any questions that you don't want to. Anything you say can be used as evidence in court. When you are being questioned you get to talk to a lawyer and have him with you while you are questioned. If we don't have the money for a lawyer, don't worry, they will give you one anyway. You can change your mind and stop talking at any point.”

Accuracy-5, Irrelevancy-2, Simplified-5, Word Count-74

This participant was presented with the standard Miranda version, a 13-year old child, and the shooting scenario. This participant advised to waive Miranda rights.

Example C:

“If you're ever in trouble with the law remember that you have the right to not talk and you SHOULD exercise it. Police are trying to arrest the bad guy, don't get yourself mixed up as that bad guy by trusting the cops are the "good guys." Keep quiet and give them no material for a case against you. Call your big sis or mom and dad and we'll see about getting you a lawyer or about enacting the free attorney provided by the state. Be quiet and careful when under a cop on a mission's radar kid. Don't trust that the cops are on your side. Any information given even in an attempt to be helpful can come back to hurt you. Everything said from the moment you are in custody can be used against you in a trial/court case. Even mentioning where you were that night could set you up for a legal nightmare because you were alone at home and have "no alibi." Don't talk, know your rights even as a kid because as a juvenile they are much more likely to play the you can trust me route to get information to use against you. If you can't afford a lawyer you are allowed to talk with a free lawyer for legal council. He is not allowed legally to disclose the information you discuss with him with ANYONE. If it's your only option it might be the best one because if he talks about your case with anyone other than you he will be disbarred. Don't talk to anyone in a situation like this without discussing the repercussions with legal council. If you do start to answer the questions/sly interrogation of an officer remember that you can stop talking at any time. Your right to silence and right to free legal council are always an option. If things get to stressful enact those rights and don't be pushed around. Say, "I will not be answering any more questions until I meet with the free lawyer mentioned in my Miranda Rights. I am enacting my right to silence as well as my right to have a lawyer present for any and all further inquiries.”

Accuracy-4, Irrelevancy-4, Simplicity-3, Word Count-367

This participant was presented with the simplified Miranda version, a 16-year old child, and the shooting scenario. This participant also advised to invoke Miranda rights.

APPENDIX J

UNDERSTANDING POLICE INTERROGATIONS QUESTIONNAIRE

Understanding Police Interrogation Questionnaire (UPIQ; Woolard, Cleary, Harvell, & Chen, 2008)

(Yes/No)

1. Does a youth have to answer a police officer's questions if the youth voluntarily agrees to go to the police station?
2. Does a youth have to answer a police officer's questions if the police arrest the youth and take him to the police station?
3. If a youth starts to answer a police officer's questions, can he change his mind and stop the interview?
4. Can the police lie to a youth during an interview?
5. Do police officers have to contact parents when a youth voluntarily goes to the police station to answer questions?
6. Do police officers have to contact parents when a youth is arrested and taken to the police station for questioning?
7. Do police officers have to wait for a parent to arrive at the station before questioning a child?
8. Do police officers have to tell parents if their children are being viewed as suspects?
9. Can a parent decide to be present when police question a youth at the police station, even if the child doesn't want the parent there?
10. Can a youth get up and leave while a police officer is questioning him if the youth voluntarily agrees to go to the police station?
11. Can a youth get up and leave while a police officer is questioning him if his parent takes him to the police station?
12. Can a youth get up and leave while a police officer is questioning him if the police arrest the youth and take him to the police station?

APPENDIX K

ATTITUDES TOWARD POLICE LEGITIMACY SCALE

ATTITUDES TOWARD POLICE LEGITIMACY SCALE (ATPLS; Reynolds, Estrada-Reynolds, & Nunez, 2018)

(Strongly Disagree – Strongly Agree)

1. Police officers usually make fair decisions when enforcing laws.
2. Police officers usually have a reason when they stop or arrest people.
3. Police do their best to be fair to everyone.
4. Police officers treat people with respect.
5. Police officers communicate well with people.
6. Police officers are generally kind.
7. If I have a problem, I feel confident that the police can help me solve it.
8. I'm not afraid to call the police when I need to.
9. People should trust the police to help.
10. I feel that police officers are willing to listen to me when I come into contact with them.
11. I believe what police officers tell me.
12. I can rely on police officers to ensure my safety.

VITA

Aishani Eggenberger-Lipschitz was born in Bangkok, Thailand, to Claudia Eggenberger, and adopted by Mark Lipschitz. She is the first of two children, with a younger sister, Dena. She attended Belvedere Elementary and continued to Broadneck High School, in Annapolis, Maryland. After graduation, Aishani attended Stevenson University where she studied Psychology and minored in Criminal Justice. During her sophomore year, she became interested in Psychology and the Law. Aishani worked on a variety of research projects as an undergraduate. She completed the Bachelor of Science degree in December 2017 in Psychology. After completing her Bachelors degree a semester early, Aishani accepted a full-time position as an educational assistant in a high school program for students with autism spectrum disorder. She worked at the Forbush School for 6-months before embarking on a 4,000-mile cross-country run with 18 teammates to raise awareness for young adults with cancer. Upon her return from this volunteer trip, Aishani began a graduate research assistantship at the University of Tennessee at Chattanooga in the Research Psychology Program. During her graduate career, Aishani worked in several departments on campus in which she contributed research and data analytical skills on grant projects and research projects. Aishani graduated with a Master of Science degree in Psychology in May 2020.