

EFFECTS OF CHILD AGE AND TYPE OF DETAIL REPORTED
ON CREDIBILITY OF CHILD ABUSE ALLEGATIONS

By

Natalie Ryan Kulisek

Amye R. Warren
Professor of Psychology
(Chair)

David F. Ross
Professor of Psychology
(Committee Member)

Amanda J. Clark
Professor of Psychology
(Committee Member)

EFFECTS OF CHILD AGE AND TYPE OF DETAIL REPORTED
ON CREDIBILITY OF CHILD ABUSE

By

Natalie Ryan Kulisek

A Thesis Submitted to the Faculty of the University of
Tennessee at Chattanooga in Partial Fulfillment
of the Requirements of the Degree of
Master of Science: Psychology

The University of Tennessee at Chattanooga
Chattanooga, Tennessee

May 2014

Copyright © 2014

By Natalie Ryan Kulisek

All Rights Reserved

ABSTRACT

With repeated experiences, children's reports of an event tend to contain fewer episodic, contextually embedded details and more inconsistencies. In one prior study, children who experienced a play event four times were rated by mock jurors as less accurate and less believable than children who experienced it once, although there was no difference in their actual accuracy (Connolly, Price, Lavoie, & Gordon, 2008). In the present study, 405 undergraduate students read one of four scenarios of a child sexual abuse allegation in a 2 (age: 4- or 10-years-old) by 2 (experience: single or multiple) factorial design. Overall, regardless of age, participants rated the child alleging repeated abuse as significantly less believable, honest, cognitively competent, and consistent than the child alleging a single abuse occurrence. Jurors may need education about the effects of repeated experience on children's accounts of abuse in order to reach appropriate decisions.

DEDICATION

For, David Taslimi, who has always supported me in everything I pursue. Thank you for putting up with the long nights and Thesis Thursdays, all while providing me with your everlasting support. This thesis would not have been possible without you. I love you.

ACKNOWLEDGEMENTS

This thesis would not have been accomplished without the support and help of a few special individuals. First and foremost, I would like to thank my amazing thesis advisor, Dr. Amye Warren. Without your continuous support and guidance, this thesis would not have been possible. To my other committee members, Dr. Amanda Clark and Dr. David Ross, thank you for your encouragement and helpful feedback during this long process. To Dr. Deborah Connolly, thank you for your continuous support and advice. I am truly grateful for all your help.

I would also like to express my undying gratitude to my wonderful parents, David and Kathy Kulisek. You taught me that hard work pays off, which served as my motto during this long and fulfilling process. I cannot thank you enough for your continued support and love. Also, a special thanks to my family and friends, who made this whole process easier through your help and encouragement.

TABLE OF CONTENTS

ABSTRACT.....	iv
DEDICATION.....	v
ACKNOWLEDGMENTS	vi
LIST OF TABLES.....	ix
LIST OF FIGURES	x
CHAPTER	
I. INTRODUCTION	1
Age.....	3
Cognitive Competence.....	5
Memory.....	5
Suggestibility	7
Detail.....	8
Honesty	9
Lying	10
Sexual Knowledge	11
Perceptions of Repeated Events.....	11
Perceptions of Credibility of Repeated-Events versus Unique-Events	15
Rationale for Present Study	18
The Present Study	20
II. METHODOLOGY	23
Participants	23
Materials	24
Assault vignette	24
Perceived credibility questionnaire	26
Demographics questionnaire	27
Procedure	27
III. RESULTS	28

Manipulation Check	28
Analyses of Overall Believability	28
Analyses of Credibility Dimensions	31
Cognitive Competence.....	32
Honesty	33
Analyses of Specific Credibility Questions	33
Participant Characteristics as Predictors of Credibility	39
IV. DISCUSSION	41
Limitations	46
Future Directions	47
Conclusion	49
REFERENCES	50
APPENDIX	
A. INFORMED CONSENT	55
B. SCENARIO GIVEN TO PARTICIPANTS	57
C. CREDIBILITY QUESTIONNAIRE	87
D. IRB APPROVAL LETTER	93
VITA	95

LIST OF TABLES

1. Percentages of responses believing that the child is either telling the truth accurately, honestly mistaken, or deliberately lying as a function of abuse frequency and victim age	30
2. Percentages of “yes” responses to the question, “Do you believe the child’s allegation against her soccer coach” as a function of abuse frequency and victim age	30
3. Original and final items included in the cognitive competence and honesty subscales based on reliability analyses	32
4. Means (with standard deviations in parentheses) of perceived credibility as a function of abuse frequency and child age	33
5. Means (with standard deviations in parentheses) of specific questions by abuse frequency and child age.....	38
6. Means (with standard deviations in parentheses) for specific allegation questions that differed significantly by participant gender	39

LIST OF FIGURES

1. Consistency ratings	34
------------------------------	----

CHAPTER I

INTRODUCTION

Over the years, there has been an increase in the number of child sexual abuse (CSA) cases that were reported to authorities; it is estimated that only 25% of CSA cases were reported in 1992, compared to 50% in 2008 (Finkelhor, Turner, Ormrod, & Hamby, 2010). In 2010, there were approximately 63,500 reports of CSA (U.S. Department of Health and Human Services, 2010). This surge of CSA cases has increased the number of criminal cases in which the child testifies in front of a jury (American Bar Association Center on Children and the Law, 2012). Due to a lack of corroborating evidence, the testimony of a child witness is often significantly important to the outcome of the case (Bruck, Ceci, & Hembrooke, 1998; Connolly, Price, Lavoie, & Gordon, 2008). Therefore, it is important to better understand factors that influence jurors' perceptions of child witnesses.

Previous research has found that adults perform poorly when discerning the accuracy of a child's testimony (Goodman, Batterman-Faunce, Schaff, & Kenney, 2002). Therefore, jurors are basing their decisions on many other factors that require closer examination. Research has shown that jurors' perceptions of credibility of a child witness are influenced by many factors including characteristics of the juror, characteristics of the child, and characteristics of the allegation.

Juror characteristics affecting views of child witnesses include gender, race, and attitudes (Bottoms, Golding, Stevenson, & Yozwiak, 2007). For example, research on juror gender has found that in CSA cases, women are more likely than men to sympathize with the child victim

and to desire prosecution of the defendant (Bottoms et al., 2007; Wiley & Bottoms, 2009). Female jurors also tend to be more empathetic towards child victims than males, which lead them to view child victims positively while viewing the defendant negatively, especially in CSA cases (Bottoms, Wiley, & Stevenson, 2005).

Child characteristics related to perceived credibility include age and gender of the child, language ability, perceived honesty, suggestibility, perceived intelligence, and demeanor while testifying (Bottoms et al., 2007). In CSA cases, mock jurors typically perceive girls as more believable than boys (Haegerich & Bottoms, 2000), perhaps because girls are victimized more often than boys (Eisenberg, Owens, & Dewey, 1987). Also, boys are expected to resist the abuse, so when they are abused they are viewed as being moderately responsible for the abuse they suffered (Rogers & Terry, 1984). Language ability has been shown to influence how a child's testimony is perceived. A study conducted by Nigro, Buckley, Hill, and Nelson (1989) investigated the credibility ratings of a witness based on language used during testimony. Nigro et al. (1989) had 192 participants read a transcript describing a fatal car-pedestrian accident. Researchers manipulated age (8-years-old and 25-years-old) and speech style (powerless or powerful) used in the eyewitness testimony. A powerless speech style refers to a style characterized by hesitations (e.g., "um", "uh"), absolutes (e.g., "surely", "definitely"), and hedges (e.g., "kind of", "I guess"). The powerful speech style represents few of the features listed above. Results showed that the eyewitness with the powerful speech style, regardless of age, was rated as most credible. However, the effects of speech style were larger for the 8-year-old than the adult witness, thus indicating the importance of language abilities in the perceived credibility of a child witness.

Characteristics of the case or the allegation may include the nature of the abuse (e.g., frequency and severity of the alleged abuse), the relationship between the child and the alleged perpetrator, the amount of time between the alleged abuse and the allegation, the way in which the allegation was made (i.e., spontaneous or after questioning), and the number and type of details in the allegation (Bottoms et al., 2007; Flin, Boon, Knox, & Bull, 1992).

The purpose of the proposed study is to examine the influence of two of these factors on perceptions of children's credibility: child age and abuse frequency (single or multiple occurrences). In the following sections, each of these factors will be defined, the literature on each factor will be reviewed, and then their potential interactive influences will be examined.

Age

Of the numerous factors related to a child's perceived credibility, one of the most influential is the child's age. However, there have been mixed findings when investigating the influence victim age has on perceived credibility. Some studies have found that children are not perceived as believable witnesses because of their inferior memory ability and their increased susceptibility to suggestion (Ross, Jurden, Lindsay, & Keeney, 2003). Older children are viewed as more cognitively competent, and mock jurors are sometimes more likely to render a guilty verdict when the child is older (Nightingale, 1993; Ross et al., 2003). Wright, Hanoteau, Parkinson, and Tatham (2010) found that mock jurors believed that the memory of younger children was significantly less reliable than adults' memories. Yet other studies have shown that children are actually viewed as more honest than adults (Leippe, Brigham, Cousins, & Romanczyk, 1989). Children under 12-years-old are sometimes viewed more favorably by mock jurors and rated as more believable than older children (Bottoms & Goodman, 1994;

Nightingale, 1993; Wright, et al., 2010). These conflicting results indicate that a child's credibility often depends on two distinct factors: honesty and cognitive competence (Ross, Dunning, Toggia, & Ceci, 1989; Ross et al., 2003).

As mentioned previously, there have been mixed findings when investigating how witness age affects the perceived credibility of a child witness. When honesty is viewed as the most important factor, younger children may be viewed as more credible than older children. CSA cases focus on honesty due to the fact that there is often little physical evidence or eyewitness testimony to corroborate the child's allegation. Therefore, the truthfulness of a child's testimony is the most important aspect of testimony in CSA cases (Connolly et al., 2008). However, when competence is viewed as the most important trait, for example, witnessing a drug deal that requires recall of specific details and people, older children may be viewed as more credible (Nunez, Kehn, & Wright, 2011).

To explain these mixed results, Ross et al. (2003) conducted a study to assess how mock jurors rated the perceived credibility of a child witness. Participants watched a videotape of an entire sexual abuse trial; including the testimony of the child, a clinical psychologist for the prosecution saying that the child was sexually abused, the child's mother, the defendant, the defendant's current wife, and a clinical psychologist for the defense saying that the child was not sexually abused. Mock jurors then rated the child witnesses' credibility and rendered a verdict for the defendant. The questionnaire had participants rate the child witnesses' credibility on 14 items. Ross et al. then conducted a factor analysis, determining that items loaded on two dimensions: honesty (5 items, including believability and lying) and cognitive competence (9 items, including accuracy of event, sexual knowledge, intelligence, innocence, suggestibility, and consistency). In order to verify their results, Ross et al. (2003) conducted a second study in

which the participants watched the videotape of a sexual abuse trial but stopped the tape right after the child witnesses' testimony (the child was the first to testify) and then had participants render a verdict for the defendant and rate the child witness's credibility. They did this in order to ensure the credibility ratings of the mock jurors were not influenced by the testimony of others, specifically the abuser's rebuttal. A factor analysis again showed that honesty and cognitive ability were different factors. From these findings Ross et al. (2003) proposed that mock jurors use a two-factor model of credibility, consisting of honesty and cognitive competence, to rate the credibility of a child witness.

Cognitive Competence

Previous studies have shown that several factors, including memory, suggestibility, and the amount and type of detail in a child's recall of an event, influence how cognitively competent jurors find a child.

Memory

Recent studies have found that the perceived memory skills of a child witness affect their perceived credibility. As children get older, mock jurors view them as more cognitively able, while younger children are viewed as having inferior memory abilities (Buck & Warren, 2009; Nikonova & Ogloff, 2005; Ross et al., 2003). Research has found that children can be quite accurate at reporting an event if questioned appropriately, even performing as well as adults (Goodman & Melinder, 2007). However, various factors influence the quality and accuracy of children's reports on an event. How a child is questioned has been shown to influence the amount of information they provide in their report. For example, when children are questioned using free

recall they tend to provide brief but accurate reports of an event (Lamb, Orbach, Warren, Esplin, & Hershkowitz, 2007). However, if interviewers follow up with open-ended prompts, children often provide more details. On the other hand, when questioned using leading questions (e.g., “Did this happen in the locker room or the gym”) the likelihood of errors drastically increases even though the number of details reported increases. Age has also been shown to influence how children remember an event and retrieve memories. The way memories are retrieved also varies by age. Younger children (6-years-old) tend to report less information about an event than older children (9-years-old), and children as a whole report less information when compared to adults (Flin et al., 1992). Additionally, younger children may forget information faster than older children and adults do. Flin et al. (1992) found that after a five-month period, 6-year-olds and 9-year-olds reported less information about an event than older children (10-years-old and above); however, the information provided did not decrease in accuracy over the five-month period.

Mock jurors appear to believe that young children are inaccurate at remembering events, memory reliability increases with age, and eventually becomes equivalent to that of adults (Wright et al., 2010). Wright et al. (2010) conducted a study investigating the perceived memory reliability of children aged 3-to-18-years-old. Adult participants read one of two vignettes: one describes a child seeing a physical altercation between his/her parents, and the other describes a child seeing a teacher sexually abuse another student. They then answered a series of questions assessing their perceptions of the child’s memory abilities and honesty. Results showed that participants believed that memory reliability increased with age, however the relationship between memory reliability and age was not linear. Memory reliability ratings increased until approximately age 6, and then began to level off. Nunez et al. (2011) conducted a follow-up study that was designed to determine how perceptions of memory ability vary for children

reporting sexual abuse versus children in a neutral context. Participants either read a vignette that described an alleged report of sexual abuse against the victim's stepfather (CSA condition) or were asked to rate the memory ability of a typical child varying in age (3- to 15-years-old) and gender. Results showed that the perceived memory ability of a child increased with age until approximately 7-years-old where it began to level off.

Suggestibility

A vast amount of research has demonstrated that age differences in suggestibility exist. Suggestibility is defined as, "The extent to which persons come to accept and subsequently incorporate post-event information into their recollections of memory" (Newcombe & Siegal, 1996, p. 337). Preschoolers are significantly more susceptible to suggestion than school age children; however, older children are still subject to high rates of suggestibility (Bruck & Ceci, 1999; Connolly & Price, 2006). It appears that mock jurors recognize children's limitations, in that younger children (i.e., 4 to 5-year-olds) are perceived to be more susceptible to suggestion when compared to older children (Connolly et al., 2008; Quas, Thompson, & Clarke-Stewart, 2005). However, mock jurors often do not know what factors contribute to a child's suggestibility (Buck & Warren, 2007; Quas, Thompson, & Clarke-Stewart, 2005; Warren, Buck, Harris, Henley, Bruck, & Kuehnle, 2007). Warren et al. (2007) found that jurors do not understand the influence of several factors on a child's suggestibility and accuracy. These factors include: the positive effects that can emerge from using open-ended questions when interviewing a child, and the potential negative effects of even mildly leading questions and repeated questions. Quas et al. (2005) found similar results, showing that jurors do not comprehend the effects of repeated questions or anatomical dolls and props on the accuracy of a child's report.

Therefore, jurors might understand that children are more suggestible than adults, but they do not recognize all the factors that raise or lower the risk of suggestibility (Buck & Warren, 2009).

Buck, London, and Wright (2010) investigated the difference between a child's perceived credibility when no expert testimony was provided versus the child's credibility when expert testimony was provided. Results showed that laypersons (mock jurors in the no expert testimony condition) rated a 4-year-old child as more susceptible to suggestion than a 10-year-old.

Detail

The amount of detail a child reports has been found to influence jurors' perceptions of the child's credibility. The more details included in a child's statements, the more believable and credible they are found to be (Yozwiak, Golding, & Marsil, 2004). In general, younger children tend to report less detail when recalling an event than older children (Bottoms et al., 2007).

However, the amount of detail reported by a child can be influenced by how traumatic the event was (Christianson, 1992). For traumatic events, such as being sexually abused, a child often reports more central details (i.e., details central to the event), and fewer peripheral details than when recalling a neutral event (e.g., a play event; Christianson, 1992). For example, when a child witnesses a traumatic event such as a robbery, he/she might remember the gun (central detail) but not the color of the robber's shirt (peripheral detail). Because jurors often believe children should be able to remember the peripheral details, they may view children who are unable to remember peripheral details as less believable than children who are able to remember peripheral details.

In addition to number of details, the type of details children report has been found to affect how cognitively competent jurors perceive the child to be (Castelli, Goodman, & Ghetti, 2005). Details may be classified as either generic or episodic. Generic details are broader

statements providing general information about the event (e.g., “During recess we played games and went outside”). Episodic details are event specific details and provide the context of an event (e.g., “During recess we played kickball and basketball. It was sunny and warm so we got to spend the whole recess outside”). Schneider, Price, Roberts, & Hedrick (2011) reviewed 51 forensic interviews to investigate the type of details (i.e., generic or episodic) recalled by children who had been abused (sexually or physically) once or abused repeatedly. The children in the interviews ranged in age from 4- to 16-years-old. Results showed that regardless of age, children who were abused once reported more episodic details than children who were abused repeatedly. In addition, it was difficult for repeatedly abused children to recall episodic details. Instead, they mostly spoke generically when questioned. Previous research has also shown that children as young as 4-years-old are able to use episodic details when recalling an event (Lamb, Sternberg, Orbach, Epslin, Stewart, & Mitchell, 2003). However, when young children (4-to 5-year-olds) recall an event, they tend to report more generic details than episodic details (Schneider et al., 2011). Older children (6- to 8-year-olds) often provide more episodic details than younger children (4- to 5-year-olds), which may result in an increase in their perceived credibility (Powell & Thomson, 1996).

Honesty

How honest jurors view a child witness to be has been shown to affect how credible they find the child. Sexual knowledge, innocence, and lying capabilities have been shown to influence the perceived honesty of a child witness.

Lying

The perceived honesty of a child witness can impact the way mock jurors view the witness. Younger children lie less often than older children, causing a younger child's perceived honesty to increase (Talwar, Lee, Bala, & Lindsay, 2002). According to Connolly et al. (2008), when compared to older children (i.e., 6- to 7-year-olds), younger children (i.e., 4- to 5-year-olds) are perceived as more honest. Wright et al. (2010) investigated the perceived honesty of children ages 3- to 18-years-old. Results showed that perceived honesty varied by both age and gender, however, the ratings of honesty were not linear with age (Nunez et al., 2011; Wright et al., 2010). Participants believed that honesty increased until ages 5- to 6-years-old for both boys and girls. From there, participants' perception of boys' honesty began to decrease, while girls' perceived honesty still increased until approximately 10- to 11-years-old and then began decreasing with age (Wright et al., 2010).

Nunez et al. (2011) conducted a similar study investigating the perceived honesty of child witnesses in a CSA case compared to a generic child (i.e., no context condition). Participants in the CSA condition read a short vignette that described an alleged report of sexual abuse against the victim's stepfather. Age and gender were the only variables manipulated. In the no context condition, participants were asked to rate the perceived honesty of a typical boy or girl aged 3, 5, 7, 9, 11, 13, or 15. Results showed that participants believed honesty peaked around 6-years-old for boys and began decreasing around 10- to 11-years-old. For girls, participants believed honesty peaked around 10-years-old and then began decreasing; however, the decrease was not linear for the CSA condition. Participant ratings of honesty in the female child witness in the CSA condition slightly rebounded around age 13 but never returned to the honesty levels of a 10-year-old girl.

Sexual Knowledge

Younger children are perceived as more honest when alleging sexual abuse due to their lack of sexual knowledge (Bottoms et al., 2007). Because sexual knowledge is often viewed as an aspect of cognitive competence, it can influence a child's perceived credibility. Younger children are viewed as being sexually naïve, lacking the ability or knowledge to fabricate a sexual abuse allegation because they do not possess sexual experience enabling them to make up a sexual encounter (Bottoms et al., 2007). Therefore, when younger children report an allegation of abuse, they are more likely to be believed than older children.

In summary, there are many factors that may influence jurors' views of child witness credibility. The current study will focus on the perceived cognitive competence and honesty of a child witness. Previous research has shown that many factors influence how cognitively competent jurors view a child including age, memory, suggestibility, and type of detail in a child's report of an event. Factors that have been shown to influence honesty include age, sexual knowledge, perceived innocence, and the abilities required to construct and maintain a lie. Most early research has examined children's allegations of single occurrences of abuse, while more recent research has focused on the believability of children's reports of repeatedly experienced abuse.

Perceptions of Repeated Events

Many victims of CSA are victims of repeated abuse, meaning multiple occurrences of sexual abuse either by the same perpetrator or different perpetrators. Turner, Finkelhor, and Ormrod (2010) conducted a national study investigating the rates of abuse in American children.

Results showed that out of 4,549 children who reported abuse, 53% reported being sexually abused, with the majority experiencing repeated sexual abuse. Due to the fact that many victims of child sexual abuse have experienced repeated abuse, it is important to study the factors that affect the perceived credibility of children who have experienced repeated abuse. These factors include: type of detail used in the child's recall of the event, consistency of the report, the perceived accuracy of the report, suggestibility, and memory reliability.

A growing body of literature has documented the ways in which the recollections and reports of children who repeatedly experience events differ from those who experience an event on a single occasion. Children who experience an event multiple times tend to recall the event differently than children who have experienced an event only once (Brubacher, Roberts, & Powell, 2011; Connolly & Price, 2006; Connolly et al., 2008; Schneider et al., 2011). Repeat-event children often provide less detail in their report of that event when compared to single-event children (Brubacher et al., 2011; Connolly & Price, 2006). This may be detrimental to a child's credibility because previous research has shown a positive correlation between amount of detail reported and the perceived credibility of a witness. Bell and Loftus (1988) examined the effects that degree of detail in a testimony has on mock jurors' perceived credibility of adult witnesses. Mock jurors were given a booklet containing eyewitness testimony of an automobile accident, juror instruction, and judgments and questions regarding the case. Some mock jurors received eyewitness testimony that was very detailed, while others received eyewitness testimony with little detail. After reading the booklet, the mock jurors were asked to rate how credible they found the witness. Results showed that the more detailed the witnesses' testimony, the more credible the mock jurors found the witness.

Connolly and Lindsay (2001) conducted a study involving 96 children that were split into three age groups: 4-, 6-, and 8-year-olds. All the children participated in a play session; half the children participated in the play session once (single-event), while the other half participated four times (repeat-event). The play sessions contained details that remained constant (fixed details) and details that varied (variable details) among the repeated events. After the play session a biasing interview was conducted, which included four suggestive questions, four control questions, and questions regarding both fixed and variable details. One day after the biasing interview, the children took a memory test. Results showed that repeat-event children were less suggestible than single-event children when asked to describe fixed details. This may have occurred because memories for fixed details are stronger, more accurate, and more resistant to suggestions (Brubacher et al., 2011; Roberts & Powell, 2005). These findings can be explained through script theory. According to script theory, when one repeatedly experiences an event one forms a script to represent the occurrence (Brubacher et al., 2011; Schneider et al., 2011). The script includes information regarding the actions that occurred during the event, objects that were present during the event, and the order of the actions that occurred during the event (Brubacher & La Rooy, 2013). Scripts also serve as an aid when recalling an event that has repeatedly occurred. The script a child would create regarding the repeated events would include specific information concerning the fixed details, which allows children to resist suggestions (Connolly & Lindsay, 2001). However, when children develop a script they merge all the details of similar repeated events into one script, causing an increase in errors when attempting to recall specific details (Powell & Thomas, 1989). Therefore, it was not surprising that when asked to describe suggested variable details, single-event children were less suggestible than repeated-event children (Connolly & Lindsay, 2001). Repeated-event children often became confused when

trying to recall which variable details occurred in what play session. These findings can also be explained through source-monitoring theory. Source-monitoring theory refers to the processes used to make attributions about the source of memories (Brubacher et al., 2011). In order to recall variable details accurately one must be able to correctly identify the source of the details. Repeat-event children often confuse the variable details across the repeated occurrences, causing them to make inaccurate source attributions. Furthermore, younger children (ages 5- to 6-years-old) have a harder time making correct source attributions than older children (ages 7- to 8-years-old; Brubacher et al., 2011).

Repeat-event children often speak in generalities when asked about specific details of an event, using language such as “he always tells me I can’t do that” or “it happened the same way as last time” (Roberts & Powell, 2001). Also, repeat-event children often report generic details when reporting an event versus single-event children who tend to report episodic details. Brubacher et al. (2011) conducted an experiment involving 240 children split into two age groups: 5- to 6-year-olds and 7- to 8-years-olds. Half of the children participated in a play session once (single-event), while the other half participated in four play sessions (repeat-event). A week after the last play session, all children were interviewed. Repeat-event children were interviewed using one of two recall conditions: episodic recall practice (e.g., “*Tell me what happened the last time at swimming lessons*”), or generic recall practice (e.g., “*Tell me what happens when you go to swimming lessons*”). Results showed that single-event children almost always used episodic language, which may influence their perceived credibility. When it came to repeat-event children, the type of recall (episodic or generic) depended on the type of practice (episodic, generic, and novel). When repeat-event children engaged in the generic recall condition, they used generic language to recall the events, which is why they may be perceived

as less credible. However, when repeat-event children engaged in the episodic recall condition, they used episodic language to recall the events. These results have significant legal implications for children who have been repeatedly abused. In order to bring charges against an alleged perpetrator, a child must be able to provide specific details about one particular instance of the abuse. Interviewers therefore typically press the child to say when and where the abuse occurred, which may be exceedingly difficult for children who have formed a generic, script-like account of their experiences (Connolly et al., 2008).

Another key characteristic associated with the reports of repeat-event children is consistency. Repeat-event children are less consistent than single-event children and the rate of consistency decreases when repeatedly questioned (Connolly et al., 2008; Quas, Malloy, Melinder, Goodman, D'Mello, & Schaaf, 2007). This lack of consistency from repeat-event children stems from having difficulty recalling variable details (Quas et al., 2007). When children experience an event repeatedly they form a general representation of the event that includes what typically happened (Connolly & Price, 2005; Schneider et al., 2011). Repeat-event children are good at recalling the general representation of an event; however, they struggle when trying to retrieve details that vary across the events (Connolly & Price, 2005). In other words, they find it difficult to recall details that only happened during one occurrence of the event (Powell & Thomson, 2003). These repeat-event children often commit internal intrusions, which is when the child reports details from other occurrences of the event into the event they are attempting to recall (Powell & Thomson, 2003). These internal intrusions are the most common error experienced by repeat-event children and may be detrimental to their perceived credibility (Powell, Roberts, Ceci, & Hembrooke, 1999; Powell & Thomson, 2003).

Perceptions of Credibility of Repeated-Events versus Unique-Events

Although many researchers have argued that differences in the reports of children who experience events once versus more than once may lead to differences in their credibility (Connolly et al., 2008; Schneider et al., 2011), very little research has been conducted to directly investigate these claims. Connolly et al. (2008) conducted a key study investigating this issue. They used thirty-one videotapes of children reporting a play event. The videotapes varied by the child's age (4- to 5-years-old or 6- to 7-years-old), frequency of event (once or four times), and accuracy of child's report (high or low). Each play session was composed of 8 different activities: play a pretend game, construct a puzzle, color a sticker, make-up a story, draw a picture, search for a hidden treasure, make a play-dough model, and find a prize underneath one of three cups. Each session consisted of 16 critical details. The child either participated in the play session once (single event condition) or 4 times (repeat event condition). The play sessions for the repeat-event children were always similar; however, they were never exactly the same. The children in the repeat-event condition were asked to recall the last play session they participated in. During the last play session for the repeat-event children and the only play session for the single-event children, the leader of the play session wore a cape and the day was referred to as "Cape Day". Two weeks after the last or only play session, children participated in a biasing interview, where eight details they experienced were misrepresented. The day after the biasing interview, children participated in another interview that assessed their memory. Each child first participated in free recall of the event by being asked, "Tell me everything you can remember about Cape Day". Once the child stopped talking the interviewer administered the cued recall test. Accuracy scores (high or low) were assigned based upon the information the child provided about the 16 critical details. Correct responses were defined as information

provided that occurred during any of the play sessions. Incorrect responses were defined as any information provided that was not experienced or was suggested by the interviewer during the biasing interviewer.

Researchers recruited 127 undergraduate students and 186 jury eligible community members to participate in the study where the credibility of the children's reports was assessed. Participants viewed one of the thirty-one videotapes and then completed a credibility questionnaire. The questionnaire assessed participants' perceived honesty, cognitive competence, credibility, believability, consistency, and suggestibility of the child. Results showed that event frequency affected all factors of credibility. Single-event children were rated as more honest, cognitively competent, consistent, less susceptible to suggestion, and more credible overall when compared to repeat-event children. Results also showed that repeat-event children were less likely to provide specific details regarding the event when compared to single-event children. When examining age effects, results showed that participants rated older children as more cognitively competent and credible, when compared to younger children. Follow up analyses indicated that the majority of the variability in participants' credibility ratings could be explained by their views on the children's consistency. These findings suggest that children who have been repeatedly abused may be at a disadvantage when asked to testify in court, because jurors are likely to view them as less credible due to the fact that they are more likely to be inconsistent and provide few episodic details.

Pezdek et al. (2004) conducted a study to investigate whether event familiarity affected children's scores on a comprehensive credibility assessment used by researchers and psychological and legal professionals, known as Criterion-Based Content Analysis (CBCA). Children ages 3- to 13-years-old participated in a stressful medical procedure called VCUG (i.e.,

voiding cystourethrogram fluoroscopy). VCUG is seen as more applicable to sexual abuse than play events because it involves touch in the genital area with clothing removed. The children experienced the VCUG procedure either once (unfamiliar condition) or more than once (familiar condition), and then recalled the procedure. CBCA scores were then given to each of the child's recall of the VCUG procedure. Results showed that CBCA scores were higher for those in the familiar condition than the unfamiliar condition; suggesting that the script of generic information that repeat-event children form maybe more credible than the episodic details single-event children tend to report (Pezdek et al., 2004). However, CBCA scores must be given by trained professionals, not by laypersons who would be more representative of jurors' views of credibility. .

Rationale for the Present Study

As stated previously, little research regarding the perceived credibility of a child witness who has experienced an event repeatedly has been conducted, and even less research has been conducted on children who report having been sexually abused repeatedly. In a study by Henley (2012), mock jurors read a scenario in which a child reported an allegation of sexual abuse by her neighbor. There were nine conditions: the child was described as 5-, 10-, or 15-years-old, and had either no prior allegation of CSA, a prior allegation of physical abuse, or a prior allegation of CSA. After reading the vignette, participants rated the overall believability as well as the honesty, and cognitive competence of the alleged victim. Henley (2012) found that there were significant main effects for abuse type and child age. Overall, participants rated a child with no prior allegation of abuse and a child with a prior allegation of physical abuse as significantly more believable than a child reporting a second allegation of sexual abuse. As expected, the 5-

and 10-year-old were rated significantly more believable than the 15-year-old. A prior sexual abuse allegation dramatically reduced the proportion of participants who believed the child to be telling the truth. Examination of individual items revealed that participants in the prior sexual abuse condition rated the child significantly higher in sexual knowledge, likelihood of misinterpreting appropriate touch as abuse, likelihood of being led or coached by an adult, likelihood of reporting abuse in the future, and likelihood of later recanting. They also rated the child in the prior sexual abuse condition significantly lower in honesty, innocence, ability to separate imagination from reality, memory ability and language ability.

Whiting, Dhillon, Price, and Roberts (2013) conducted a study examining the influence that type of detail (i.e., generic or episodic) has on the perceived credibility of a child alleging physical abuse. Participants read a vignette of an alleged abused 9-year-old. The vignette varied by abuse frequency (once versus twice), type of detail used in the child's recall (generic and episodic) and reported maturity level (mature and relatively immature). There was no significant difference between the child who recalled generic details versus the child who recalled episodic details.

The studies conducted by Connolly et al. (2008), Henley (2012), and Whiting et al. (2013) provide insight into the perceived credibility of repeat-event children. However in Connolly et al. (2008), the event the child recalled was emotionally neutral. It is unknown whether these findings will be applicable when the repeat-event experienced is emotionally arousing, as is the case with sexual abuse. Whiting et al. (2013) found no influence of type of detail reported in an allegation of physical abuse. Connolly et al. (2008) found that repeated event children are viewed as less believable when compared to single event children. However, when applying these results to a CSA case, repeatedly abused children may be more believable

due to greater severity of the abuse. Henley's (2012) study showed that single allegation children are viewed as more believable than repeated allegation children. However, in the repeat allegation condition, two different perpetrators allegedly abused the child, not one perpetrator multiple times. Moreover, the nature of the child's report did not vary between the repeat and single conditions. Therefore, the purpose of this study is to examine the effects that age and event frequency will have on the perceived credibility of a child sexual abuse victim who is repeatedly abused by the same perpetrator.

The Present Study

The present study was designed to determine how perceptions of children's credibility would vary as a function of their age and the frequency of the alleged abuse. Therefore, college students read a scenario of a child (4- or 10-years-old) who had reportedly experienced sexual abuse once or repeatedly by the same offender. Victim ages of 4-years-old and 10-years-old were chosen for several reasons based on prior research. Preschool-aged children report less information, provide less episodic details, and are more suggestible than school-aged children (Connolly et al., 2008; Warren et al., 2007); therefore, a 4-year-old was chosen rather than a 5- or 6-year-old for the younger witness. Previous research also indicates that 4-year-olds are viewed as being honest, but lacking cognitive competence, while 10-year-olds are still young enough to be viewed as honest, but old enough to be viewed as cognitively competent. Additionally, research on recollection of repeated events has primarily focused on children younger than 10-years-old. Finally, previous research has shown that older adolescents reporting sexual abuse are viewed as particularly likely to have the knowledge and motivation to fabricate the allegations. Henley (2012) found that participants did not believe an older adolescent would

let an adult repeatedly abuse them without fighting back or reporting them to the police.

Therefore, the upper age chosen for the present study was pre-adolescent.

College students acted as mock jurors during the study for practical reasons. A study conducted by Quas et al. (2005) showed that college students are fairly similar to the population eligible for jury duty in their responses to questions regarding child sexual abuse. Quas et al. (2005) recruited 169 college students and a group of 148 individuals, who had just been dismissed from jury duty, to participate in the study. The participants were asked to answer a belief questionnaire and a research knowledge questionnaire. The belief questionnaire was used to assess the child's perceived memory, suggestibility, reactions to sexual abuse, and disclosure of sexual abuse; while the research knowledge questionnaire assessed the participants' ability to correctly guess the outcome of several infamous studies that investigated children's memory and suggestibility. Results showed that there were no major significant differences between the individuals just dismissed from jury duty and the college students' answers on the beliefs and research knowledge questionnaires, indicating that college students represent the jury eligible population. Connolly et al. (2008) found similar results when investigating how credible college students perceive a child witness when compared to community members. The major difference between college students and community members is that for college students, only event frequency and age significantly correlated with their perceived overall credibility of the child; while for community members event frequency, age, and accuracy were significantly correlated with perceived overall credibility.

Based on findings of Connolly et al. (2008), it was expected that children in the single event condition would be viewed as more believable when compared to children in the repeat event condition. Therefore:

H1: Children who report a single instance of abuse will be rated as more believable and credible than children who report repeated abuse.

Previous research conducted by Connolly et al. (2008) and Nunez et al. (2011) has shown that 10-year-olds are perceived as being both honest and cognitively competent, while 4-year-olds are viewed as honest, but lacking cognitive competence. For this reason:

H2: The 10-year-old, regardless of event frequency, will be rated as more credible when compared to the 4-year-old.

Connolly et al. (2008) has shown that older children report more details and are more consistent when recalling an event when compared to younger children. For this reason, if an older child provides few details and is inconsistent, it can be more detrimental to their perceived credibility when compared to a younger child. Therefore:

H3: The difference in perceived credibility for allegations of single and repeated abuse will be more pronounced for the 10-year-old than the 4-year-old.

CHAPTER II

METHODOLOGY

Participants

The sample consisted of 405 student volunteers from the University of Tennessee at Chattanooga, a midsized regional university in the southeastern United States. Participants were recruited from introductory psychology and sociology classes. They ranged in age from 18 to 50. Participants included 222 females (54.8%) and 177 males (44%). Of the 405 participants 73.8% (N=299) identified as Caucasian, 14.1% (N=57) as African American, 4.7% (N=19) as Bi-racial, 2.2% (N=9) as Hispanic, 1.5% (N=6) as Asian, .7% (N=3) as Native American, and 1.7% (N=7) as other. Nine participants (2.2%) reported having children and 156 participants (38.6%) indicated that they have had personal experience with child sexual abuse (i.e., self, family member, or close friend).

Participants were randomly assigned to one of four conditions (i.e., 4-year-old single allegation, 4-year-old repeated allegation, 10-year-old single allegation, 10-year-old repeated allegation). Twenty-seven participants were excluded from the sample due to manipulation check failures (e.g., answering that the child was 6 in the 4-year-old condition). Therefore, the final sample consisted of 378 participants (282 Caucasian, 50 African American, 17 Bi-racial, 8 Hispanic, 6 Asian, 3 Native American, and 7 Other). The final sample included 207 females (54.8%) and 166 males (43.9%) ranging in age from 18-50 with a mean age of 19.4 (SD=3.63).

Materials

Three materials made up the survey packet completed by participants: an assault vignette including interview excerpts, a perceived credibility questionnaire, and a demographics questionnaire.

Assault vignette

Four fictional assault vignettes were composed varying in age (i.e., 4-or 10-year-old), and abuse frequency (single versus repeated). Age was manipulated in four primary ways: 1) the stated age and school grade of the child (i.e., 4-year-old: Pre-Kindergarten, 10-year-old: 4th grade), 2) the maturity of the language used (e.g., 4-year-old: *“He rubbed my pee pee”* and 10-year-old: *“He rubbed my private parts”*), 3) how much information was reported in response to a single question (e.g., *“Can you tell me everything you remember from the trip to the zoo, from the beginning to the end?”*, 4-year-old: *“It was really fun. We rode on a big bus”*. Interviewer: *“And then what did you do?”* Amber: *“Watched movies”* versus 10-year-old: *“It was really fun. We went on a charter bus and watched movies and played DS the whole way”*), and 4) amount of prompting required by the CPS interviewer (e.g., 4-year-old scenario: Interviewer, *“So what happened in Coach Phil’s office?”*, Amber: *“He says to wait”*, Interviewer: *“Uh huh”*, Amber: *“He comes back”*, Interviewer: *“What happened after that”*, Amber, : *“He closes the door”* versus 10-year-old scenario: Interviewer: *“So what happened in Coach Phil’s office?”*, Amber: *“He tells me to wait there. And when he comes back, he closes the door”*). Abuse frequency was manipulated by varying the following: the child’s response to the question *“How many times has this happened”*; the use of episodic or generic language; inconsistencies; and repairs. The single-

abuse condition was characterized by the use of episodic language (e.g., “*I went to get my Powerade*”), consistency throughout the report of the abuse, and the child responding, “*once*” to the CPS worker’s question, “*How many times did this happen*”. On the contrary, the repeated-abuse condition was characterized by the use of generic language (e.g., “*I went to get my drink*”), inconsistencies in the report of the abuse (e.g., reporting the abuse occurred in the soccer coach’s office then later reporting that it occurred in the locker room), the use of repairs (e.g., “*It was Monday, no wait... it was Wednesday*”; refer to Appendix B), and the child responding “*Lots of times*” to the CPS worker’s question, “*How many times did this happen*”. Previous research conducted by Connolly et al. (2008) found more inconsistencies present in younger children’s report of an event than older children, and more inconsistencies for children who repeatedly experienced an event compared to children who experienced the event once (Connolly et al., 2008). Therefore, based on this previous research, the interview of the 4-year-old in the repeated abuse condition contained two inconsistencies, while the interview of the 10-year-old in the repeated abuse condition contained only one inconsistency. The 4- and 10-year-old in the single abuse condition provided no inconsistencies.

All the scenarios briefly stated that a girl named Amber (4- or 10-years-old) has been exhibiting difficulty in school/pre-kindergarten. She recently became uncooperative with adults and withdrawn in school activities. After getting in trouble during recess, Amber was sent to the assistant principal’s office. While in the assistant principal’s office, Amber began crying hysterically and proceeded to make an allegation of sexual abuse. The assistant principal questioned Amber and then notified Child Protective Services (CPS). A CPS worker interviewed Amber. During the interview, Amber disclosed that her soccer coach had sexually assaulted her.

An interview with the assistant soccer coach indicated that Amber's mother and soccer coach had argued over the mother's habitual tardiness in picking Amber up from soccer practice.

Perceived credibility questionnaire

The credibility questionnaire consisted of 34 questions. The first three questions (i.e., "*How old is Amber?*", "*How many times was Amber allegedly abused?*", and "*Who did Amber first tell about the assault by her coach?*") acted as a manipulation check to ensure that participants thoroughly read, comprehended, and retained the information provided in the assault vignette. Participants were then asked if they believed Amber's allegation against her soccer coach and to rate the extent to which they believed Amber's allegation using a 7-point Likert scale (1 = *not at all*; 4 = *neutral*; 7 = *very much*). Participants were then asked to give three specific reasons for their answer to the previous question (i.e., why they believe or do not believe the allegation made by Amber). Based on the study conducted by Key, Warren, and Ross (1996), participants were then asked to rate whether they believed Amber was a) *telling the truth accurately*, b) *honestly mistaken*, or c) *deliberately lying*. After completing that section, participants were asked to answer several specific questions, using a 7-point Likert scale (1 = *very unlikely*; 4 = *neutral*; 7 = *very likely*), regarding details of the scenario (e.g., "*How likely is it that Amber is telling the truth about the allegations against her soccer coach?*" and "*How likely is it that Amber remembers the details of what happened with her soccer coach?*"). Participants were then asked to answer 10 questions about Amber regarding specific characteristics in order to assess Amber's perceived level of honesty and cognitive competence (e.g., *honesty, sexual knowledge, memory ability, language ability, innocence, emotional maturity, knowledge of right and wrong, ability to distinguish imagination from reality, and obedience*; refer to Appendix C).

Demographics questionnaire

Participants were asked to complete a demographics questionnaire in order to collect additional information about each participant. The questionnaire asked the participants' age, gender, ethnicity, class rank, and whether they have any children. The questionnaire also asked participants to rate their personal experience with child sexual abuse, as well as their knowledge about eyewitness memory/testimony using a 7-point Likert scale (1 = *none*; 4 = *a moderate amount*; 7 = *a great deal*).

Procedure

Participants were recruited from introductory psychology and sociology classes. The study was conducted in groups; however, participants in each group were randomly assigned to one of four conditions (4-year-old single allegation, 4-year-old repeated allegation, 10-year-old single allegation, 10-year-old repeated allegation).

After providing informed consent, participants read the vignette they were assigned. After reading the vignette, participants answered the credibility questionnaire. After completing the questionnaire, participants were thanked for their time and debriefed. The experimenter provided no incentives, although some course instructors gave extra credit for participation.

CHAPTER III

RESULTS

Manipulation Check

Data were collected from 405 participants. A manipulation check was used to ensure that each participant completely read and comprehended the material in the survey packet. The following questions were used as a manipulation check: “*How old is Amber?*”, “*How many times was Amber allegedly abused?*”, and “*Who did Amber first tell about the assault by her coach?*” Participants who answered one of the first two questions incorrectly were excluded from the analyses.

Twenty-seven participants were excluded: 1.5% (N=6) of participants incorrectly answered the question “*How old is Amber?*” and 5.2% (N=21) incorrectly answered the question “*How many times was Amber allegedly abused?*” Eleven participants in the single abuse condition failed the manipulation check, while 16 participants in the repeated abuse condition failed.

Analyses of Overall Believability

A 2 (abuse frequency: single versus repeated) X 2 (child age: 4-year-old versus 10-year-old) between-groups factorial analysis of variance (ANOVA) was conducted to assess overall believability using the question, “*How much do you believe Amber’s allegation against her soccer coach?*”. The analysis revealed no significant interaction ($p = .074$), however, a significant

main effect of abuse frequency was found, $F(1, 374) = 24.587$, $MSE = 44.926$, $p < .001$, $\eta_p^2 = .089$. The age main effect was not significant, $p = .757$. As hypothesized, participants rated the child in the single-abuse condition ($M = 5.73$, $SD = 1.10$) as significantly more believable than the child in the repeated-abuse condition ($M = 4.96$, $SD = 1.51$). The hypothesis that the 10-year-old, regardless of event frequency, would be rated as more believable than the 4-year-old was not supported.

A frequency analysis was conducted to assess the participants' responses to whether they believed the alleged victim was (a) *telling the truth accurately*, (b) *honestly mistaken*, or (c) *deliberately lying*. Results revealed that 77.9% of participants believed the alleged victim was *telling the truth accurately*, 10.9% believed the alleged victim was *honestly mistaken*, and 11.2% believed the alleged victim was *deliberately lying*. The analysis was collapsed across age groups and revealed that the rates of telling the truth accurately were significantly higher in the single-abuse condition than in the repeat-abuse condition ($z = 6.11$, $p < .01$). The results examining *deliberately lying* and *honestly mistaken* revealed no significant differences when collapsed across age groups; however, there was a trend for repeat-event children to be viewed as more likely to be *honestly mistaken* than single-event children ($z = 1.608$, $p = .054$). When collapsed across abuse condition, there were no significant age effects. As hypothesized, participants rated the alleged victim in the single-event condition as more believable than the alleged victim in the repeated-event condition. The response percentages for each condition are reported in Table 1.

Table 1 Percentages of respondents believing that the child is either telling the truth accurately, honestly mistaken, or deliberately lying as a function of abuse frequency and victim age

	Single Abuse		Repeated Abuse	
<u>Believe that child is:</u>	<u>4</u>	<u>10</u>	<u>4</u>	<u>10</u>
Telling the truth accurately	96.8%	88.7%	60.4%	65.6%
Honestly mistaken	2.2%	3.1%	22.9%	15.6%
Deliberately lying	1.1%	8.2%	16.7%	18.9%

A frequency analysis was conducted to analyze the dichotomous question, “*Do you believe Amber’s allegation against her soccer coach?*”, revealing that 84.1% of participants believed the allegation, while 15.9% did not. Results indicated that when forced to choose, participants believed the 4-year-old who had allegedly been abused only once, more than all other conditions ($z = 2.07, p = .038$ vs. the 10-year-old single; $z = 5.399, p < .01$ vs. the 4-year-old repeated, $z = 4.8045, p = .01$ vs. the 10-year-old repeated). Additionally, the 10-year-old single was significantly different from the 10-year-old repeated ($z = 3.26, p < .01$) and the 4-year-old repeated ($z = 3.86, p < .01$). The 4-year-old and 10-year-old repeated conditions were not significantly different ($z = .567, p > .05$). The response percentages for each condition are reported in Table 2.

Table 2 Percentages of “yes” responses to the question, “Do you believe the child’s allegation against her soccer coach” as a function of abuse frequency and victim age

	Single Abuse		Repeated Abuse	
<u>Overall believability</u>	<u>4</u>	<u>10</u>	<u>4</u>	<u>10</u>
Do you believe the child’s allegation against her soccer coach?	97.9%	88.7%	74.7%	74.7%

Analyses of Credibility Dimensions

Credibility was assessed along two dimensions: honesty and cognitive competence. In order to determine the items to include on the honesty and cognitive competence scales, results of prior studies were consulted and reliability analyses for the present sample were conducted. Initially, 17 items were considered for the cognitive competence subscale. Items were chosen based on criteria for the cognitive ability scale presented in Ross et al. (2003). The reliability analysis indicated that 12 items should be retained to comprise the cognitive competence subscale (refer to Table 3), with a Cronbach's alpha of .828. In regard to the honesty subscale, 11 items were initially considered. After conducting a reliability analysis 6 items were chosen to comprise the honesty subscale (refer to Table 3), with a Cronbach's alpha of .841.

Table 3 Original and final items included in the cognitive competence and honesty subscales based on reliability analyses

Cognitive Competence	Cronbach's alpha if item deleted
<i>How likely is it that the child reported all the major details about the event?</i>	.625
<i>How likely is it that the child remembers all the major details about the event?</i>	.621
<i>How likely is it that the child reported all the minor details about the event?</i>	.623
<i>How likely is it that the child remembers all the minor details about the event?</i>	.633
<i>How likely is it that the child completely understood what happened between her and her coach?</i>	.639
<i>How likely is it that the child completely comprehended all the questions asked by the CPS worker?</i>	.630
<i>How likely is it that Amber clearly and completely remembers events from a year ago?</i>	.642
<i>Memory ability</i>	.635
<i>Language ability</i>	.635
<i>Ability to distinguish imagination from reality</i>	.645
<i>Knowledge of right and wrong</i>	.644
<i>Intelligence</i>	.636
<i>How likely is it that the child confused an earlier abusive experience with what happened with the soccer coach?</i>	.696
<i>How much prompting did the child need to answer the CPS worker's questions?</i>	.678
Honesty	Cronbach's alpha if item deleted
<i>*How likely is it that the child made up the allegation against her soccer coach?</i>	.700
<i>How likely is it that the child is telling the truth about the allegations against her soccer coach?</i>	.690
<i>*How likely is it that the child had a motive to make a report against her coach?</i>	.707
<i>*How likely is it that if the child were questioned again her story would change?</i>	.710
<i>*How likely is it that some of the details the child reported are not accurate?</i>	.709
<i>Honesty</i>	.691
<i>Innocence</i>	.841
<i>Sexual knowledge</i>	.840

Note. Items included in the final cognitive competence and honesty subscales are italicized.

* Items that were reversed scored.

Cognitive Competence

A 2 X 2 ANOVA was conducted to assess the participants' perception of Amber's cognitive competence. The analysis revealed no significant interaction ($p = .083$), but did reveal a significant main effect of abuse frequency $F(1, 370) = 29.110$, $MSE = 19.746$, $p < .001$, $\eta_p^2 = .073$. The results indicate that participants rated the alleged victim in the single-abuse condition

as significantly more cognitively competent when compared to the alleged victim in the repeated-abuse condition. Contrary to prediction, although participants rated the 10-year-old as more cognitively competent when compared to the 4-year-old, the difference was not statistically significant, $p = .069$. The means of each condition are reported below in Table 4.

Table 4 Means (with standard deviations in parentheses) of perceived credibility as a function of abuse frequency and child age

Credibility Dimensions	Abuse Frequency		Child Age	
	Single	Repeated	4	10
Cognitive Competence	4.463 (0.84)	4.004 (0.81)	4.156 (0.88)	4.311 (0.83)
Honesty	5.098 (0.96)	4.349 (1.18)	4.823 (1.15)	4.624 (1.11)

Note. Ratings were made on a 7-point scale (1= low, 7=high)

Honesty

A 2 X 2 ANOVA was conducted to assess Amber’s perceived honesty. The analysis revealed a significant main effect of abuse frequency $F(1, 369) = 45.807, MSE = 52.297, p < .001, \eta_p^2 = .110$. There were no other significant effects present. The results indicate that participants rated the alleged victim in the single-abuse condition as significantly more honest than the alleged victim in the repeated-abuse condition. The means of each condition are reported in Table 4. The results support the hypothesis that children who reported a single instance of abuse would be rated as more honest than children who reported repeated abuse. However, the hypothesis that the 10-year-old would be rated as significantly more honest than the 4-year-old was not supported, $p = .073$.

Analyses of Specific Credibility Questions

Additional questions of interest that were not included in the honesty and cognitive competence subscales were assessed using a 2 (abuse frequency: single abuse versus repeated

abuse) X 2 (child age: 4-year-old versus 10-year-old) between-groups ANOVA. The means and standard deviations of the additional specific allegation questions are presented in Table 5 by abuse frequency and child age.

The analysis assessing the question, “*How consistent was Amber’s report of the event*” showed a significant interaction $F(1,373) = 6.082, MSE = 10.514, p = .014, \eta_p^2 = .016$, as well as a significant main effect of abuse frequency $F(1,373) = 232.744, MSE = 402.355, p < .001, \eta_p^2 = .384$. However, there was no significant main effect of age, $p = .250$. Analyses revealed that overall, regardless of age; participants rated the child in the repeated-abuse condition as significantly less consistent than the child in the single-abuse condition. Furthermore, whereas the 4- and 10-year-old were both rated as highly consistent in the single-abuse condition, the 10-year-old was seen as more consistent than the 4-year-old in the repeated-abuse condition.

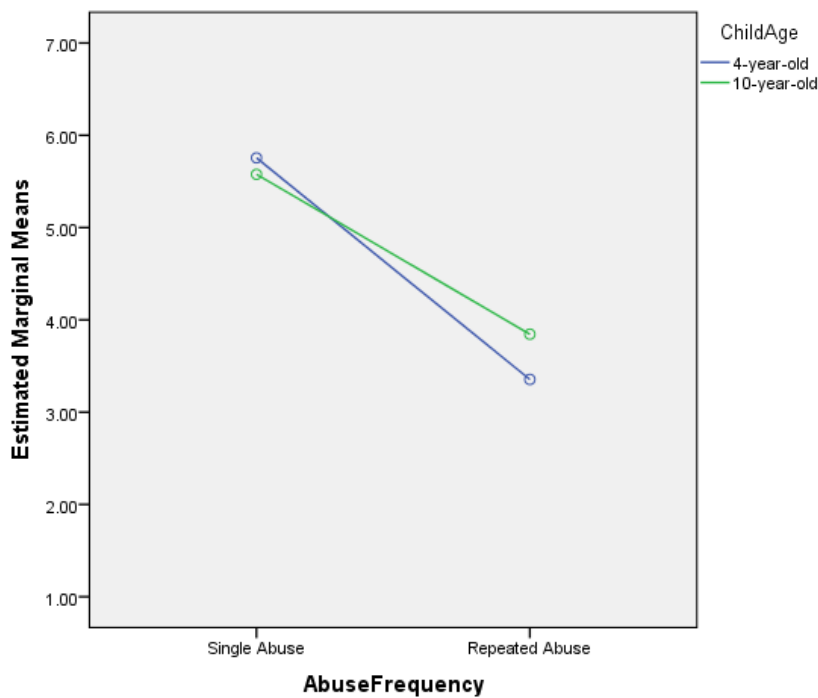


Figure 1 Consistency ratings

Following the approach of Connolly et al. (2008), a regression analysis was conducted to further examine the effect that consistency had on the relationship between abuse frequency and believability ratings. Results suggested that consistency acts as a mediator for the relationship between abuse frequency and believability ratings $b = .541$, $t(375) = 12.459$, $p < .001$. Results from a correlation analysis revealed that abuse frequency and believability ratings were moderately correlated, $r(376) = -.282$, $p < .001$; that correlation was significantly reduced when consistency was controlled, $r(376) = .120$, $p < .001$.

When assessing the question, “*How detailed were Amber’s statements during the interview*” results revealed a significant main effect of abuse frequency, $F(1, 372) = 16.043$, $MSE = 25.264$, $p < .001$, $\eta^2_p = .041$. Results showed no other significant effects present, $p = .841$. As predicted, participants believed the child in the single-abuse condition reported more details than the child in the repeated-abuse condition.

When assessing the question, “*How likely is it that Amber misinterpreted her soccer coach’s touch as being sexual and inappropriate when it was innocent?*” results revealed a significant main effect of abuse frequency $F(1,372) = 4.394$, $MSE = 9.829$, $p = .037$, $\eta^2_p = .012$ and child age $F(1,372) = 4.331$, $MSE = 9.687$, $p = .038$, $\eta^2_p = .012$. However, there was no significant interaction ($p = .373$) present. Results indicate that participants believed the 4-year-old was more likely than the 10-year-old to misinterpret her soccer coach’s actions as being sexual and inappropriate. Participants also believed that the alleged victim in the repeated-abuse condition was more likely to misinterpret her soccer coach’s touch when compared to the alleged victim in the single-abuse condition.

A similar image emerged when assessing the question, “*How likely is it that Amber confused an earlier abusive experience with what happened with her soccer coach*”. Results revealed a significant main effect of abuse frequency $F(1, 374) = 24.901, MSE = 58.647, p < .001, \eta_p^2 = .062$. Results indicate that participants believed that the alleged victim in the repeated-abuse condition was more likely to confuse an earlier abusive experience with what happened with her soccer coach when compared to the alleged victim in the single-abuse condition. There was no age main effect ($p = .222$) nor an interaction ($p = .926$) present.

The analysis assessing the question, “*How likely is it that an adult convinced Amber to make a false report against her coach*” revealed a main effect of abuse frequency $F(1, 374) = 4.478, MSE = 57.163, p = .035, \eta_p^2 = .012$. Results indicate that participants believed the alleged victim in the repeated-abuse condition was more likely to be convinced by an adult to make a false report against the coach when compared to the alleged victim in the single-abuse condition. There was no main effect of age, $p = .823$, no an interaction, $p = .271$.

When assessing the question, “*How prone to suggestion is Amber*” results revealed a significant main effect of abuse frequency $F(1, 369) = 20.815, MSE = 23.888, p < .001, \eta_p^2 = .053$. Participants believed the alleged victim in the repeated-abuse condition was more prone to suggestion than the alleged victim in the single-abuse condition. There was no significant main effect of age ($p = .222$), nor an interaction ($p = .346$) present.

A similar image emerged when assessing the question, “*How much prompting did Amber need to answer the CPS worker’s questions*”. Results revealed a significant main effect of abuse frequency $F(1, 373) = 17.949, MSE = 32.887, p < .001, \eta_p^2 = .046$. Results indicate that participants believed the alleged victim in the repeated-abuse condition required more prompting

than the alleged victim in the single-abuse condition. However, the expected age effect was not observed, $p = .139$.

For both *innocence and sexual knowledge*, results revealed a significant main effect of child age (*Innocence*: $F(1,373) = 4.882$, $MSE = 10.210$, $p = .028$, $\eta_p^2 = .013$; *Sexual knowledge*: $F(1,373) = 18.601$, $MSE = 48.489$, $p = .000$, $\eta_p^2 = .047$). As expected, participants rated the 4-year-old as more innocent and less sexually knowledgeable than the 10-year-old. Contrary to predictions there were no significant effects of frequency of abuse (*Innocence*: $p = .255$; *Sexual Knowledge*: $p = .255$).

Table 5 Means (with standard deviations in parentheses) for specific questions by abuse frequency and child age

Specific Credibility Questions	Abuse Frequency		Child Age	
	Single	Repeated	4	10
<i>How consistent was the child's report of the event?</i>	5.665 (1.16)	3.591 (1.47)	4.542 (1.76)	4.743 (1.60)
<i>How detailed were the child's statements during the interview?</i>	4.174 (1.30)	3.655 (1.21)	3.928 (1.27)	3.902 (1.29)
<i>How likely is it that the child misinterpreted her soccer coach's touch as being sexual and inappropriate when it was innocent?</i>	2.316 (1.36)	2.645 (1.63)	2.640 (1.57)	2.316 (1.43)
<i>How likely is it that the child confused an earlier abusive experience with what happened with her soccer coach?</i>	3.278 (1.52)	4.069 (1.55)	3.774 (1.59)	3.564 (1.56)
<i>How likely is it that an adult convinced the child to make a false report against her coach?</i>	2.848 (1.46)	3.626 (4.86)	3.284 (1.60)	3.181 (4.83)
<i>How prone to suggestion is the child?</i>	3.958 (1.09)	4.467 (1.05)	4.265 (1.07)	4.152 (1.13)
<i>How much prompting did the child need to answer the CPS worker's questions?</i>	3.785 (1.35)	4.371 (1.35)	3.979 (1.35)	4.171 (1.42)
<i>Innocence</i>	5.414 (1.47)	5.253 (1.43)	5.495 (1.47)	5.171 (1.42)
<i>Sexual Knowledge</i>	2.990 (1.62)	3.161 (1.68)	2.721 (1.62)	3.4331 (1.61)

Note: Ratings were made on a 7-point scale.

Participant Characteristics as Predictors of Credibility

Participant demographics including: age, gender, ethnicity, rank, whether they have any children, personal experience with child sexual abuse, and knowledge about eyewitness memory/testimony, were collected in order to determine if participant demographics played a significant role in overall believability ratings of the alleged victim.

Contrary to past research, participant gender was not significantly correlated to the overall perceived credibility of the alleged victim, $p = .645$. Participant gender was significantly correlated to the perceived cognitive competence of the alleged victim $r = -.155$, $p = .003$. Women rated the alleged victim as more cognitively competent than did men (women: $M = 4.35$, $SD = .862$; men: $M = 4.08$, $SD = .823$). However, gender of the participant did not correlate with perceived honesty, $p = .277$. Refer to Table 6 for further items correlated to participant gender.

Table 6 Means (with standard deviations in parentheses) for specific allegation questions that differed significantly by participant gender.

	r	Women	Men
<i>How consistent was the child's report of the event?</i>	-.108 *	4.802 (1.71)	4.440 (1.60)
<i>How likely is it that the child forgot to tell the CPS worker about some things that happened because she was nervous?</i>	-.145**	5.319 (1.23)	4.940 (1.35)
<i>How prone to suggestion is the child?</i>	.161**	4.034 (1.07)	4.384 (1.08)
<i>Confidence</i>	-.122 *	4.039 (1.36)	3.711 (1.28)

Note. Ratings were made on a 7-point scale. * Correlation is significant at the 0.05 level.

** Correlation is significant at the 0.01 level.

Knowledge regarding eyewitness testimony was significantly correlated to the perceived believability of the alleged victim $r = .49$, $p = .003$. Therefore, the major analyses on believability, cognitive competence, and honesty were re-run using knowledge of eyewitness testimony as a covariate. The pattern of results did not change except for the emergence of a significant age effect in the analysis of cognitive competence $F(1, 368) = 3.874$, $MSE = 2.538$, p

= .050, $\eta_p^2 = .010$. Once the variability due to self-rated eyewitness knowledge was controlled, a significant age difference emerged with participants rating the 10-year-old as more cognitively competent when compared to the 4-year-old.

CHAPTER IV

DISCUSSION

The present study was conducted in order to determine how perceptions of children's credibility in a child sexual abuse context would vary as a function of their age and the frequency of the alleged abuse. In prior research using a play event, single-event children were judged as more cognitively competent and more honest when compared to repeat-event children (Connolly et al., 2008).

In the present study, participants rated the child alleging a single instance of abuse as significantly more believable than the child alleging repeated abuse. As predicted, participants rated the child in the single-abuse condition as more cognitively competent and more honest than the child in the repeat-abuse condition. Participants also rated the child in the repeat-abuse condition as more likely to be honestly mistaken or deliberately lying about the abuse allegation when compared to the child in the single-abuse condition.

Past research has shown that children recalling instances of repeated play events are often less consistent (Connolly et al., 2008), less likely to provide specific details associated with a particular instance (Brubacher et al., 2011; Connolly et al., 2008), less confident when recalling the event (Roberts & Powell, 2005), and more suggestible (Connolly & Lindsay, 2001; Connolly & Price, 2006). The present study provides evidence that some of these perceived characteristics play a role in discriminating between the reports of a child alleging a single instance of abuse and the child alleging repeated abuse.

Overall, participants rated the child alleging one instance of abuse as significantly more consistent than the child alleging repeated abuse. Previous research has shown that repeat-event children are less consistent when recalling an event than single-event children (Connolly et al., 2008; Quas et al., 2007). The lack of consistency often seen in repeat-event children stems from their difficulty recalling details that varied between the different instances of the event (Quas et al., 2007). Repeat-event children often commit internal intrusions, meaning they often integrate details from other occurrences of an event into the specific instance they are attempting to recall (Powell & Thomson, 2003). In the present study, these types of mistakes were detrimental to the perceived credibility of the child alleging repeated abuse, possibly accounting for the discrimination of overall believability between single- and repeat-abuse children. As in Connolly et al. (2008, Study 3), consistency ratings appeared to mediate the relationship between event frequency and believability ratings. In the present study, the inconsistencies appear to have been viewed as direct contradictions, even though they may have been accurate reports of different instances of the abuse. For example, when asked by the social worker why the child had gone into the coach's office, the child first said to get a drink. When asked to clarify later, the child said it was to call her mother because she was late picking her up. Those answers may both be correct in regard to different instances of the alleged abuse. However, participants did not appear to consider this possibility. Responses in the repeat-event condition often mentioned the inconsistencies in the alleged victim's report of the abuse. For example, when asked why they did or did not believe the child's allegation against her soccer coach, one response regarding the child alleging repeated abuse included, "*She said it (the abuse) happened in coach's office originally, then said locker room*" and "*She changed the location of where the abuse took place at the end of the interview*"; while the responses regarding the child alleging a single instance of

abuse included, “*She is consistent with her story*” and “*She is consistent, she tells the same story*”. Further evidence that participants paid attention to the inconsistencies came from their ratings of the 4-year-old as significantly more inconsistent than the 10-year-old. In fact, the 4-year-old had two inconsistent answers compared to the 10-year-old’s one inconsistent answer because the scenarios were written to reflect prior research showing that younger children were more inconsistent than older children (Connolly et al., 2008).

Additional results indicated that participants may have displayed an undue bias against the child alleging repeat abuse. For example, participants believed that the child in the repeat-abuse condition was more suggestible than the child in the single-abuse condition. Suggestibility was not manipulated in the present study and there was no direct evidence of suggestibility in the scenarios presented, but participants assumed greater suggestibility based on other features of the child’s report. In Connolly et al. (2008), the repeat event children were judged to be more suggestible than the single event children even when they were equally accurate. Participants in the present study also believed that the child in the repeat-abuse condition was more likely to be convinced by an adult to make a false report against her soccer coach, even though both scenarios provided Amber’s mother with the exact same motive to convince Amber to make a false allegation.

Similarly, participants believed the child in the single-abuse condition required less prompting than the child in the repeat-abuse condition, when there were no actual differences in prompting between the repeat-abuse condition and the single-abuse condition interview scenarios. However, there were differences in prompting between the 4-year-old and the 10-year-old, designed to reflect evidence that younger children require more prompting. The participants in this study did not appear to pick up on the actual age difference, but inferred a difference

between the repeat-abuse and single-abuse reports, again suggesting an undue bias against the child who alleged repeated abuse.

In regard to detail provided in the child's recall of the abuse, regardless of age, participants believed the child in the repeat-abuse condition provided less detail than the child in the single-abuse condition, even though the amount of detail did not vary between the two scenarios. However, the type of detail did vary; the child in the single-abuse condition primarily provided episodic details when recalling the alleged abuse, while the child in the repeat-abuse condition primarily provided generic details. The scenarios were constructed to reflect prior research showing that repeat-event children tend to use more generic details in their recall of an event, which can influence the perceived credibility of the child witness (Brubacher et al., 2011).

Overall, age did not play a significant role in the perceived credibility of the child, regardless of abuse frequency. Studies examining the credibility of child witnesses in CSA cases have found that juror's perceptions of honesty decrease as age increases (Nunez et al., 2011; Ross et al., 2003). Based on previous literature, it was hypothesized that younger children would be viewed as significantly more honest than the older children; however, there were no significant differences in ratings between the younger child and the older child. These findings may be due to the gender of the alleged victim in the present study's scenario. Nunez et al. (2011) found that girls are perceived as honest until around age 11, while boys' perceived honesty peaks around the age of 6. For girls, both 4-years-old and 10-years-old are still perceived as honest, which may partially account for the lack of differences in ratings of overall believability.

Based on previous research, it was expected that the 4-year-old would be viewed as having less sexual knowledge and being more innocent than the 10-year-old. Younger children

are often viewed as being sexually naïve, unable to fabricate a sexual encounter due to lack of previous sexual experience or knowledge (Bottoms et al., 2007). However, there were no significant differences in ratings of innocence and sexual knowledge between the younger child and the older child.

Similar results emerged when examining the overall cognitive competence ratings of the alleged victim. Previous literature has shown that as age increases ratings of cognitive competence also increase (Connolly et al., 2008; Nunez et al., 2011). Thus, it was hypothesized that the older child regardless of event frequency would be rated as more credible than the younger child; however, there were no significant differences in ratings of overall credibility and cognitive competence between the younger child and the older child. However, when controlling for self-rated eyewitness knowledge results revealed that participants viewed the 10-year-old as significantly more believable than the 4-year-old.

Surprisingly, results did not reveal significant differences for participant gender or for personal experience with child sexual abuse when examining overall believability and perceived honesty and cognitive competence of the alleged child victim. Instead, there was a significant effect of self-rated knowledge about eyewitness testimony and memory. Participants who rated themselves as knowing more about eyewitness testimony and memory tended to rate the child as more believable. The meaning of this effect is difficult to interpret, as it is unclear how the participants interpreted the question and whether their self-ratings are accurate representations of their actual knowledge. The participants' answers may actually be reflecting how much they have heard about eyewitness testimony and child abuse cases from any source, including television shows and the media, rather than scientific research. Future research should construct

questions in order to assess participants' true knowledge of eyewitness testimony gained through formal education rather than through media exposure.

Limitations

There are several limitations present in the current study. First, the present study utilized a brief, fictional sexual abuse allegation scenario. It is unknown whether these findings might generalize to actual sexual abuse allegations. Additionally, jurors in actual sexual abuse cases would be provided with far more information. The present study also used a written scenario. Therefore, participants were unable to see the child's demeanor while testifying or recalling the alleged abuse, which has been shown to influence jurors' perceptions of a child witness. Seeing a child cry, become nervous, or embarrassed in front of the defendant has been shown to increase the child's perceived believability (Myers, Redlich, Goodman, Prizmich, & Imwinkelried, 1999). Second, participants in the present study were college students, not actual jurors. However, previous studies have shown that when comparing college students and community members waiting for jury duty, their responses to child witnesses are highly consistent, suggesting that college students are a fair representation of the jury eligible population (Connolly et al., 2008; Quas et al., 2007). Third, the abuse allegation in the present study involved a child being abused in a school setting by an adult non-family member. Although abuse by coaches and teachers does occur, it is more common for children to be abused by a close relative in the home setting (U.S. Department of Health and Human Services, 2010). Whether the results of this study can be generalized to any other abuse context remains uncertain. Fourth, the addition of another age condition with an adolescent witness would have allowed a better test of the hypotheses regarding age differences. Fifth, the present study would have benefited from having a larger

sample size. A larger sample would have yielded greater power and ultimately provided a better test of the possible interaction between age and event frequency. The large number of analyses also may have increased the possibility of experiment-wise error.

Future Directions

Although there are several limitations to the present study, it is an important step into examining the perceived credibility of a child witness who reported repeated abuse by the same perpetrator. The present study was designed to determine how perceptions of children's credibility would vary as a function of their age and the frequency of the alleged abuse. Overall, it was found that a child alleging repeated abuse was viewed as less consistent, less believable, less honest, less cognitively competent, and more prone to suggestion than a child alleging a single instance of abuse. Participants may have formed an overall negative impression of the child based primarily on her inconsistency, and that global impression then carried over to their perception ratings on every question rather than only those specific items in which they actually differed from the single-event child. These findings highlight how a child being repeatedly abused by the same perpetrator may be viewed less favorably than a child who was abused once.

Therefore, it is important to further research this topic in order to gain more perspective into how jurors view victims of child sexual abuse. It is possible that jurors need education or perhaps expert testimony about how children report abuse. When trained raters used a research-based credibility assessment (Pezdek et al., 2004), they judged the reports of children who had experienced a stressful medical procedure more than once to be more credible than reports of children who had experienced it only one time. Expert testimony or education about the features most likely to be present in validated sexual abuse allegations may help jurors to more accurately

separate true and false allegations. For example, jurors may need to be provided with research evidence regarding the relation between consistency and actual accuracy; greater inconsistency may be a sign that the child is losing track of which of many incidents they should be reporting, not that they do not remember the events or are making answers up. Previous studies have shown that prospective jurors often make some unwarranted assumptions about child witnesses (Buck et al., 2010; Quas et al. 2005). However, expert testimony can help override these assumptions (Buck et al., 2010).

In child sexual abuse cases, the testimony of a child witness is often significantly important to the outcome of the case, due to lack of corroborating evidence (Bruck et al., 1998; Connolly et al., 2008). Thus, the legal system often requires victims of child sexual abuse to isolate a specific instance of abuse and provide episodic details regarding the abuse. Therefore, additional research should focus on how to help children who have repeatedly been abused to isolate specific instances of the abuse and report their experiences with greater contextual specificity. Brubacher et al. (2011) compared three types of interview conditions for children who experienced an event once or repeatedly and then were interviewed a week later: episodic recall practice, generic recall practice, or novel recall practice. For repeat-event children the type of recall depended on the type of practice used during the interview; in the episodic recall condition, they provided more episodic details in their report of the event (Brubacher et al., 2011). Further research should determine if these findings hold true in a child sexual abuse context.

Conclusion

Prior research has demonstrated that children who experience similar events repeatedly report those events differently from children who experience them once. Reports of children who experienced a play event once have been rated as more believable than those who experienced it more often. This study is the first to extend that finding using fictional sexual abuse allegation vignettes. The child who alleged that she had been abused multiple times by the same perpetrator was viewed as less honest, less cognitively competent, and less believable than a child who reported a single incident of abuse. Participants not only rated the child in the repeated abuse allegation as less consistent and less detailed (which was in fact true), but as requiring more prompting and being more suggestible (which was not). Jurors may display an undue bias against the reporting style of children who have been repeatedly abused. These findings are crucial when examining the perceived credibility of a child alleging repeated abuse because the majority of children who are sexually abused are abused more than once. It is essential that further research focuses on creating techniques and strategies to improve the perceived credibility of children who have been repeatedly abused by the same perpetrator.

REFERENCES

- American Bar Association. (2012). Child sexual abuse. Retrieved from:
<http://www.americanbar.org/content/dam/aba/administrative/litigation/materials/2012springleadership/Child-Sexual-Abuse.authcheckdam.pdf>
- Bell, B. E., & Loftus, E. F. (1988). Degree of detail of eyewitness testimony and mock juror judgments. *Journal of Applied Social Psychology, 18*(14), 1171-1192.
- Bottoms, B. L., Golding, J. M., Stevenson, M. C., Wiley, T.R.A., & Yozwiak, J. A. (2007). A review of factors affecting jurors' decisions in child sexual abuse cases. In M. Toglia, J. D. Read, D. F. Ross, & C.L. Lindsay (Eds.), *Handbook of eyewitnesses psychology: Volume 1: Memory for events* (509-543). Lawrence Erlbaum, Mahwah, NJ.
- Bottoms, B. L., & Goodman, G. S. (1994). Perceptions of children's credibility in sexual assault cases. *Journal of Applied Social Psychology, 24*(8), 702-732. doi:
<http://dx.doi.org/10.1111/j.1559-1816.1994.tb00608.x>
- Bottoms, B. L., Stevenson, M.C., & Wiley, T. R. (2005). Gender differences in community jurors' child sexual abuse case judgments. La Jolla, CA: Presentation at the meeting of the American Psychology Law Society.
- Brubacher, S. P., & La, R. D. (2013). Witness recall across repeated interviews in a case of repeated abuse. *Child Abuse & Neglect*. (In press).
- Brubacher, S. P., Roberts, K. P., & Powell, M. (2011). Effects of practicing episodic versus scripted recall on children's subsequent narratives of a repeated event. *Psychology, Public Policy, and Law, 17*(2), 286-314. doi: <http://dx.doi.org/10.1037/a0022793>
- Bruck, M., Ceci, S., & Hembrooke, H. (1998). Reliability and credibility of young children's reports: From research to policy and practice. *American Psychologist, 53*(2), 136-151.
- Bruck, M., & Ceci, S. (1999). The suggestibility of children's memory. *Annual Review of Psychology, 50*, 419-439.
- Buck, J. A., London, K., & Wright, D. B. (2010). Expert testimony regarding child witnesses: does it sensitize jurors to forensic interview quality?. *Law and Human Behavior, 35*(2), 152-164.

- Buck, J. A., & Warren, A. R. (2009). Expert testimony in recovered memory trials: Effects on mock jurors' opinions, deliberations, and verdicts. *Applied Cognitive Psychology, 24*(4), 495-512.
- Castelli, P., Goodman, G. S., & Ghetti, S. (2005). Effects of interview style and witness age on perceptions of children's credibility in sexual abuse cases. *Journal of Applied Social Psychology, 35*(2), 297-319. doi: <http://dx.doi.org/10.1111/j.1559-1816.2005.tb02122.x>
- Christianson, S. A. (1992). Emotional stress and eyewitness memory: A critical review. *Psychological Bulletin, 112*(2), 251-258.
- Connolly, D.A., & Lindsay, D.S. (2001). The influence of suggestions on children's reports of a unique experience versus an instance of a repeated experience. *Applied Cognitive Psychology, 15*, 205-223.
- Connolly, D. A., & Price, H. L. (2006). Children's suggestibility for an instance of a repeated event versus a unique event: The effect of degree of association between variable details. *Journal of Experimental Child Psychology, 93*(3), 207-223. doi: <http://dx.doi.org/10.1016/j.jecp.2005.06.004>
- Connolly, D. A., Price, H. L., Lavoie, J. A. A., & Gordon, H. M. (2008). Perceptions and predictors of children's credibility of a unique event and an instance of a repeated event. *Law and Human Behavior, 32*(1), 92-112. doi: <http://dx.doi.org/10.1007/s10979-006-9083>
- Eisenberg, N., Owens, R. G., & Dewey, M. E. (1987). Attitudes of health professionals to child sexual abuse and incest. *Child Abuse & Neglect, 11*, 109-116.
- Finkelhor, D., Turner, H., Ormrod, R., & Hamby, S. L. (2010). Trends in childhood violence and abuse exposure: Evidence from 2 national surveys. *Archives of Pediatrics & Adolescent Medicine, 164*(3), 238-242.
- Flin, R., Boon, J., Knox, A. & Bull, R. (1992). The effects of a five month delay on children's eyewitness memory. *British Journal of Psychology, 83*, 323-336.
- Goodman, G. S., Batterman-Faunce, J. M., Schaaf, J. M., & Kenney, R. (2002). Nearly 4 years after an event: Children's eyewitness memory and adults' perceptions of children's accuracy. *Child Abuse & Neglect, 26*(8), 849-884.
- Goodman, G. S., & Melinder, A. (2007). Child witness research and forensic interviews of young children: A review. *Legal and Criminological Psychology, 12*(1), 1-19.
- Haegerich, T. M., & Bottoms, B. L. (2000). Empathy and jurors' decisions in patricide trials involving child sexual assault allegations. *Law and Human Behavior, 24*(4), 421-448.

- Henley, A. K. (2012). *Credibility of first versus second child sexual abuse allegations*. (The University of Tennessee at Chattanooga). *ProQuest Dissertations and Theses*, 59. Retrieved from <http://search.proquest.com/docview/1024155207?accountid=14766>. (1024155207).
- Lamb, M. E., Sternberg, K. J., Orbach, Y., Esplin, P. W., Stewart, H., & Mitchell, S. (2003). Age differences in young children's responses to open-ended invitations in the course of forensic interviews. *Journal of Consulting and Clinical Psychology*, 71(5), 926-934. doi: <http://dx.doi.org/10.1037/0022-006X.71.5.926>
- Lamb, M. E., Orbach, Y., Warren, A. R., Esplin, P. W., & Herschkowitz, I. (2007). Enhancing performance: Factors affecting the informativeness of young witnesses. In M. P. Toglia, J. D. Read, D. F. Ross, & R. C. L. Lindsay (Eds.), *Handbook of eyewitness psychology. Vol 1: Memory for events* (pp. 429-451). Mahwah, NJ: Erlbaum.
- Leippe, M. R., Brigham, J. C., Cousins, C., & Romanczyk, A. (1989). The opinions and practices of criminal attorneys regarding child eyewitnesses: A survey. In S. J. Ceci, D. F. Ross, & M. P. Toglia (Eds.), *Perspectives on children's testimony* (pp. 100-130). New York: Springer-Verlag.
- Myers, J. E., Redlich, A., Goodman, G., Priznich, L., & Imwinkelried, E. (1999). Juror's perceptions of hearsay in child sexual abuse cases. *Psychology, Public Policy, & Law*, 5, 388-419.
- Newcombe, P. A., & Siegal, M. (1996). Where to look first for suggestibility in young children. *Cognition*, 59, 337-356.
- Nightingale, N. N. (1993). Juror reactions to child victim witnesses: Factors affecting trial outcome. *Law and Human Behavior*, 17(6), 679-694. doi: <http://dx.doi.org/10.1007/BF01044689>
- Nigro, G. N., Buckley, M. A., Hill, D. E., & Nelson, J. (1989). When juries "hear" children testify: The effects of eyewitness age and speech style on jurors' perceptions of testimony. In S. J. Ceci, D. F. Ross, & M. P., Toglia (Eds.) *Perspectives on children's testimony* (pp. 57-70). New York: Springer-Verlag.
- Nikonova, O., & Ogloff, J. R. P. (2005). Mock jurors' perceptions of child witnesses: the impact of judicial warning. *Canadian Journal of Behavioural Science*, 37(1), 1-19.
- Nunez, N., Kehn, A., & Wright, D. B. (2011). When children are witnesses: The effects of context, age, and gender on adults' perceptions of cognitive ability and honesty. *Applied Cognitive Psychology*, 25, 460-468. doi: 10.1002/acp.1713
- Pezdek, K., Morrow, A., Blandon-Gitlin, I., Goodman, G. S., Quas, J. A., Saywitz, K. J., Bidrose, S., ... Brodie, L. (2004). Detecting deception in children: Event familiarity affects criterion-based content analysis ratings. *The Journal of Applied Psychology*, 89(1), 119-126.

- Powell, M. B., Roberts, K. P., Ceci, S. J., & Hembrooke, H. (1999). The effects of repeated experience on children's suggestibility. *Developmental Psychology, 35*(6), 1462-1477.
- Powell, M. B., & Thomson, D. M. (1996). Children's memory of an occurrence of a repeated event: Effects of age, repetition, and retention interval across three question types. *Child Development, 67*(5), 1988-2004.
- Powell, M. B., & Thomson, D. M. (2003). Improving children's recall of an occurrence of a repeated event: Is it a matter of helping them to generate options?. *Law and Human Behavior, 27*(4), 365-384.
- Quas, J. A., Malloy, L. C., Melinder, A., Goodman, G. S., D'Mello, M., & Schaaf, J. (2007). Developmental differences in the effects of repeated interviews and interviewer bias on young children's event memory and false reports. *Developmental Psychology, 43*(4), 823-837.
- Quas, J.A., Thompson, W.C., & Clarke-Stewart, K.A. (2005). Do jurors "know" what isn't so about child witnesses? *Law and Human Behavior, 29* (4), 425-455.
- Roberts, K. P., & Powell, M. B. (2001). Describing individual incidents of sexual abuse: A review of research on the effects of multiple sources of information on children's reports. *Child Abuse & Neglect, 25*(12), 1643-1659.
- Roberts, K. P., & Powell, M. B. (2005). Evidence of metacognitive awareness in young children who have experienced a repeated event. *Applied Cognitive Psychology, 19*, 1019-1031.
- Rogers, C. M., & Terry, T. (1984). Clinical intervention with boy victims of sexual abuse. *Victims of sexual aggression, 91-104*.
- Ross, D. F., Dunning, D., Taglia, M. P., & Ceci, S. J. (1989). The child in the eyes of the jury: Assessing mock jurors' perceptions of the child witness. *Law and Human Behavior, 14*(1), 5-23. doi: <http://dx.doi.org/10.1007/BF01055786>
- Ross, D. F., Jurden, F. H., Lindsay, R. C. L. & Keeney, J. M. (2003). Replication and limitations of a two-factor model of child witness credibility. *Journal of Applied Social Psychology, 33*(2), 418-431. doi:10.1111/j.1559-1816.2003.tb01903.x
- Schneider, L., Price, H. L., Roberts, K. P., & Hedrick, A. M. (2011). Children's episodic and generic reports of alleged abuse. *Applied Cognitive Psychology, 25*(6), 862-870. doi: <http://dx.doi.org/10.1002/acp.1759>

- Talwar, V., Lee, K., Bala, N., & Lindsay, R. C. L. (2002). Children's conceptual knowledge of lying and its relation to their actual behaviors: Implications for court competence examinations. *Law and Human Behavior, 26*(4), 395-415. doi: <http://dx.doi.org/10.1023/A:1016379104959>
- Turner, H. A., Finkelhor, D., & Ormrod, R. (2010). Poly-victimization in a national sample of children and youth. *American Journal of Preventive Medicine, 38*(3), 323-330.
- U.S. Department of Health and Human Services. (2010). Child maltreatment. Retrieved from: <http://archive.acf.hhs.gov/programs/cb/pubs/cm10/cm10.pdf>
- Warren, A., Buck, J. A., Harris, R. L., Henley, A. K., Bruck, M., & Kuehnle, K. (2007). Knowledge of proper child sexual abuse interview techniques: The need for professional education and expert testimony. In B. D. McAuliff & D. Ravanshenas (Chairs), *Giving Away Developmental Psychology in Court: Can Expert Testimony on Suggestibility and Child Abuse Improve Jurors' Decisions?* Symposium conducted at the Society for Research in Child Development Biennial Meeting, Boston, MA.
- Whiting, B., Dhillon, J., Price, H. L., & Roberts, K. P. (2013). The influence of expectations on child witness credibility: Are preconceived expectations more important than the child's performance? Portland, OR: Presentation at the meeting of the American Psychology Law Society.
- Wiley, T. R. A., & Bottoms, B. L. (2009). Effects of defendant sexual orientation on jurors' perceptions of child sexual assault. *Law and Human Behavior, 33*(1), 46-60.
- Wright, D. B., Hanoteau, F., Parkinson, C., & Tatham, A. (2010). Perceptions about memory reliability and honesty for children of 3 to 18 years old. *Legal and Criminological Psychology, 15*(2), 195-207.
- Yozwiak, J. A., Golding, J. M., & Marsil, D. F. (2004). The impact of type of out-of-court disclosure in a child sexual assault trial. *Child Maltreatment, 9*(3), 325-334.

APPENDIX A
INFORMED CONSENT

November 17, 2013

Dear Participant,

We are conducting a survey to determine people's beliefs and opinions regarding child witnesses. To participate, *you must be 18 years of age or older*. If you choose to participate in this project, you will be asked to complete a survey containing 35 questions. It should take you no more than 20 to 25 minutes. There are three parts to this survey. In the first part, you are asked about your background information. In the second part you are asked to read a vignette in which a child makes an explicit allegation of sexual abuse. In the third part, you will answer questions about the vignette you read.

While this survey deals with fictional and hypothetical events, the allegation made in the scenario is explicit. Sometimes thinking about child sexual abuse can be deeply disturbing for some people. If the topic makes you uncomfortable, please *do not* participate. In addition, if you feel that you need to talk to anyone about any issues raised by this survey please contact the student counseling center at 423-425-4438, located in the University Student Center. The counseling center provides several services to deal with personal problems, anxiety, depression, and other issues that may be related to experiences of child abuse.

Participation in this study is voluntary. You may choose to withdraw from the study at any time. Your decision whether or not to participate will not affect your academic standing at the University of Tennessee at Chattanooga in any way. If your professor allows any extra credit for participation in research, it will be given according to your professor's guidelines. If you do choose to participate in this study, your participation will be completely anonymous. Neither anyone reading the results of the survey nor I will be able to identify you. This form will *not* be connected with your survey answers, but will be collected separately.

If you have any questions about the project, you may contact Natalie Kulisek at natalie-kulisek@mocs.utc.edu or Dr. Amye Warren at amy-warren@utc.edu or 423-425-4293. This project has been approved by the University of Tennessee at Chattanooga's Institutional Review Board for the Protection of Human Subjects. You may obtain a copy of the summary of the results of this study from Anna Henley after the study is completed this December.

Your help is greatly appreciated.
Sincerely,

Natalie Kulisek
University of Tennessee at Chattanooga
Department of Psychology #2803
615 McCallie Ave
Chattanooga, TN 37403

Signature

Date

Print Full Name

Course

UTC ID

Professor

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 11-130.

APPENDIX B
SCENARIOS GIVEN TO PARTICIPANTS

Please read the entire scenario below carefully. When you have completely finished reading the scenario, you may turn the page and begin answering the questions.

4-year-old: Single Abuse Allegation

On November 7th a referral was made to Child Protective Services (CPS) regarding Amber Benson, a 4-year-old Pre-Kindergarten student at North Crest Elementary School. She lives with her mother, who has sole custody. Her mother works outside the home and Amber attends the afterschool childcare program.

After Amber got into an argument with another child during recess, Amber's teacher told her to sit in time out. When Amber refused, she was sent to the assistant principal's office. While in the office, Amber became very upset and started crying uncontrollably. When the assistant principal asked Amber why she was behaving that way, she said that the soccer coach, Coach Phil, had "rubbed her bottom" and "put his finger inside her pee pee." The assistant principal questioned Amber and then notified Child Protective Services. The CPS worker came to the school and interviewed Amber, Amber's teacher, and the assistant soccer coach later that day.

Below you will read notes from the CPS Worker's interviews with Amber's teacher and assistant principal, and excerpts of the recorded interviews conducted with Amber and the assistant soccer coach.

Interview with Amber's Pre-Kindergarten teacher, Ms. Hyde

According to Amber's current Pre-Kindergarten teacher, Ms. Hyde, in the past few weeks Amber has been uncooperative with her teachers, withdrawn in class activities, and having difficulty getting along with peers. During a recent parent/teacher conference, her mother reported that she was exhibiting similar behaviors at home. Ms. Hyde stated that earlier today during recess, Amber had gotten into a fight with a peer. When told to sit in time out, Amber repeatedly refused, became defiant, and Ms. Hyde sent her to the assistant principal's office.

Interview with Amber's assistant principal, Mrs. Gloria

The assistant principal, Mrs. Gloria, reported that earlier today Amber was sent to her office for fighting with a peer and refusing to sit in time out. Shortly after coming into Mrs. Gloria's office Amber became upset and started crying uncontrollably. When Mrs. Gloria asked what was wrong, Amber said that Coach Phil touched her the wrong way. When asked when this happened Amber replied that it happened after soccer practice. Mrs. Gloria then asked Amber where it happened and she said that it happened in Coach Phil's room. Mrs. Gloria then stated that she immediately called CPS.

Interview Excerpt from CPS Interview with Amber Benson

CPS Worker: Good morning Amber, how are you doing this morning?

Amber: Good.

CPS Worker: I'm Jane and it's my job to talk to kids about things that happen at home and at school. I am going to talk with you for a little while today about some things that have been happening with you. Is that okay?

Amber: (Nods yes).

CPS Worker: How old are you Amber?

Amber: (Holds up four fingers).

CPS Worker: Do you know the difference between the truth and a lie?

Amber: Yeah.

CPS Worker: What happens if you tell a lie?

Amber: You get in big trouble.

CPS Worker: So do you understand that you should only tell the truth when we're talking today?

Amber: Yes.

CPS Worker: So, your mom told me you went on a school trip to the zoo last month, can you tell me everything you remember from the zoo, from the beginning to the end?

Amber: It was really fun.

CPS Worker: What did you do first?

Amber: We rode on a big bus with movies!

CPS Worker: What did you do when you got to the zoo?

Amber: Umm, we got to feed the goats.

CPS Worker: What else happened?

Amber: We saw some meerkats. They were so cute.

CPS Worker: Good. What grade are you in at school, Amber?

Amber: Pre-K.

CPS Worker: Who is your teacher?

Amber: Miss Hyde

CPS Worker: What do you do at school?

Amber: You read.....you draw pictures.

CPS Worker: Anything else?

Amber: You get to play.

CPS Worker: What about after school, what do you do?

Amber: Aftercare. Or soccer.

CPS Worker: Do you know why I am here to talk to you today?

Amber: Umm, to talk about Coach Phil.

CPS Worker: What do you want to tell me about Coach Phil?

Amber: (no answer).

CPS Worker: Okay. What did you tell principal Gloria about Coach Phil?

Amber: I don't want to tell.

CPS Worker: It is okay Amber. I talk to lots of kids about lots of things. I know that some things are hard to talk about. Tell me what's bothering you about your coach.

Amber: He touched my bottom.

CPS Worker: How many times has this happened?

Amber: One time.

CPS Worker: Only one time.

Amber: Uh huh.

CPS Worker: Let's talk about the time this happened. Is that okay?

Amber: Yeah.

CPS Worker: When did this happen?

Amber: After soccer.

CPS Worker: Can you tell me what day it was?

Amber: I don't know.

CPS Worker: Do you think it was a long time ago, or just a few days ago?

Amber: Umm, a long time ago.

CPS Worker: Was it hot or cold?

Amber: The sun was really hot.

CPS Worker: Do you remember anything else about when it happened?

Amber: Nuh-uh.

CPS Worker: Okay, tell me everything you remember about what happened. Start at the very beginning.

Amber: I was hot. And thirsty.

CPS Worker: Uh huh.

Amber: I wanted a Powerade.

CPS Worker: (Nods)

Amber: So we went inside.

CPS Worker: Who was inside?

Amber: Me and Coach Phil.

CPS Worker: Where were you inside?

Amber: Coach Phil's room.

CPS Worker: So what happened in his room?

Amber: He said "Wait".

CPS Worker: Uh huh.

Amber: Then, he got my Powerade.

CPS Worker: What happened after that?

Amber: He closed the door.

CPS Worker: What did he do then?

Amber: He wouldn't give it to me.

CPS Worker: And then what happened?

Amber: I went to get my Powerade.

CPS Worker: Tell me what happened after that.

Amber: Then he pulled me over. He pulled my arm, like this (gestures pulling arm).

CPS Worker: Uh-huh.

Amber: He made me sit down.

CPS Worker: Where did you sit down?

Amber: (Long pause) On his lap.

CPS Worker: And then what happened?

Amber: He put his hands in my pants. And rubbed.

CPS Worker: What do you mean?

Amber: Down there, in my pee pee.

CPS Worker: What else do you remember?

Amber: Nothing (shakes head).

CPS Worker: Did he say anything to you?

Amber: Don't tell anybody.

CPS Worker: What happened after that?

Amber: He said "go out". And we went outside.

CPS Worker: What did you do then?

Amber: I waited for mommy.

CPS Worker: Where were the other kids while this happened?

Amber: Umm, gone home.

CPS Worker: Were there any grownups around?

Amber: Coach J.

CPS Worker: Who is Coach J?

Amber: My other coach.

CPS Worker: And where was Coach J?

Amber: Outside.

CPS Worker: What was he doing?

Amber: (Shrugs) Putting stuff up?

CPS Worker: Have you ever been the last kid at soccer practice or aftercare any other times?

Amber: Yeah. Lots of times.

CPS Worker: Did you talk to anyone before about what happened with your coach?

Amber: Mrs. Gloria.

CPS Worker: Did you tell your mom?

Amber: No, she will be mad.

CPS Worker: Can you remember anything else?

Amber: Nuh-uh.

CPS Worker: Okay, Amber, I am just making sure I have everything straight. Can you tell me again when this happened?

Amber: After soccer.

CPS Worker: Okay, did this happen a few days ago, or a couple of weeks ago, or a long time ago?

Amber: Sort of a long time ago.

CPS Worker: And where did it happen?

Amber: Coach Phil's room.

CPS Worker: In Coach Phil's room?

Amber: Uh huh.

CPS Worker: And why were you in Coach Phil's room?

Amber: To get my Powerade.

.....
Following her interview with Amber, the CPS worker spoke with the assistant soccer coach, Jonathan. The following is an excerpt from that interview.
.....

CPS Worker: How old are you Jonathan?

Jonathan: 17.

CPS Worker: And what do you do here?

Jonathan: My mom is one of the teachers, and I help the soccer coach.

CPS Worker: What do you usually do during practice?

Jonathan: I take care of getting out all the equipment and help Coach Phil with whatever he needs.

CPS Worker: Do you ever work directly with the children?

Jonathan: Yeah, I try to teach them some basic things.

CPS Worker: Are you ever alone with the children?

Jonathan: No. I'm not allowed to be. The school says we should make sure we only work with kids in groups and where other teachers can see us.

CPS Worker: Is Coach Phil ever alone with the children?

Jonathan: No, he is not supposed to be either.

CPS Worker: Have you seen anything or heard about any problems with Coach Phil and any of the kids?

Jonathan: No.

CPS Worker: What about Amber Benson?

Jonathan: Oh, yeah. Amber's mom is always late picking Amber up.

CPS Worker: So what happened?

Jonathan: Well, it happened so much that about a month ago, Coach Phil said he wasn't going to be able to let Amber stay in the afterschool program if Amber's mom was late one more time.

CPS Worker: When did this happen?

Jonathan: A couple of weeks ago.

CPS Worker: And nothing else happened since then?

Jonathan: No, I haven't seen anything. Is there a problem?

Please read the entire scenario below carefully. When you have completely finished reading the scenario, you may turn the page and begin answering the questions.

4-year-old: Repeated Abuse Allegation

On November 7th a referral was made to Child Protective Services (CPS) regarding Amber Benson, a 4-year-old Pre-Kindergarten student at North Crest Elementary School. She lives with her mother, who has sole custody. Her mother works outside the home and Amber attends the afterschool childcare program.

After Amber got into an argument with another child during recess, Amber's teacher told her to sit in time out. When Amber refused, she was sent to the assistant principal's office. While in the office, Amber became very upset and started crying uncontrollably. When the assistant principal asked Amber why she was behaving that way, she said that the soccer coach, Coach Phil, had "rubbed her bottom" and "put his finger inside her pee pee." The assistant principal questioned Amber and then notified Child Protective Services. The CPS worker came to the school and interviewed Amber, Amber's teacher, and the assistant soccer coach later that day.

Below you will read notes from the CPS Worker's interviews with Amber's teacher and assistant principal, and excerpts of the recorded interviews conducted with Amber and the assistant soccer coach.

Interview with Amber's Pre-Kindergarten teacher, Ms. Hyde

According to Amber's current Pre-Kindergarten teacher, Ms. Hyde, in the past few weeks Amber has been uncooperative with her teachers, withdrawn in class activities, and having difficulty getting along with peers. During a recent parent/teacher conference, her mother reported that she was exhibiting similar behaviors at home. Ms. Hyde stated that earlier today during recess, Amber had gotten into a fight with a peer. When told to sit in time out, Amber repeatedly refused, became defiant, and Ms. Hyde sent her to the assistant principal's office.

Interview with Amber's assistant principal, Mrs. Gloria

The assistant principal, Mrs. Gloria, reported that earlier today Amber was sent to her office for fighting with a peer and refusing to sit in time out. Shortly after coming into Mrs. Gloria's office Amber became upset and started crying uncontrollably. When Mrs. Gloria asked what was wrong, Amber said that Coach Phil touched her the wrong way. When asked when this happened Amber replied that it was after soccer practice. Mrs. Gloria then asked Amber where it happened and she said that it happened in Coach Phil's room. Mrs. Gloria then stated that she immediately called CPS.

Interview Excerpt from CPS Interview with Amber Benson

CPS Worker: Good morning Amber, how are you doing this morning?

Amber: Good.

CPS Worker: I'm Jane and it's my job to talk to kids about things that happen at home and at school. I am going to talk with you for a little while today about some things that have been happening with you. Is that okay?

Amber: (Nods yes).

CPS Worker: How old are you Amber?

Amber: (Holds up four fingers).

CPS Worker: Do you know the difference between the truth and a lie?

Amber: Yeah.

CPS Worker: What happens if you tell a lie?

Amber: You get in big trouble.

CPS Worker: So do you understand that you should only tell the truth when we're talking today?

Amber: Yes.

CPS Worker: So, your mom told me you went on a school trip to the zoo last month, can you tell me everything you remember from the zoo, from the beginning to the end?

Amber: It was really fun.

CPS Worker: What did you do first?

Amber: We rode on a big bus with movies!

CPS Worker: What did you do when you got to the zoo?

Amber: Umm, we got to feed the goats.

CPS Worker: What else happened?

Amber: We saw some meerkats. They were so cute.

CPS Worker: Good. What grade are you in at school, Amber?

Amber: Pre-K.

CPS Worker: Who is your teacher?

Amber: Miss Hyde

CPS Worker: What do you do at school?

Amber: You read...you draw pictures.

CPS Worker: Anything else?

Amber: You get to play.

CPS Worker: What about after school, what do you do?

Amber: Aftercare. Or soccer.

CPS Worker: Do you know why I am here to talk to you today?

Amber: Umm, to talk about Coach Phil.

CPS Worker: What do you want to tell me about Coach Phil?

Amber: (no answer).

CPS Worker: Okay. What did you tell principal Gloria about Coach Phil?

Amber: I don't want to tell.

CPS Worker: It is okay Amber. I talk to lots of kids about lots of things. I know that some things are hard to talk about. Tell me what's bothering you about your coach.

Amber: He touches my bottom.

CPS Worker: How many times has this happened?

Amber: I don't know.

CPS Worker: Has it happened more than once?

Amber: Yes. Lots of times.

CPS Worker: Let's talk about the last time this happened. Is that okay?

Amber: Yeah.

CPS Worker: When was the last time this happened?

Amber: After soccer.

CPS Worker: Can you tell me what day it was?

Amber: I don't know.

CPS Worker: Do you think it was a long time ago, or just a few days ago?

Amber: Umm, a long time ago.

CPS Worker: Was it hot or cold outside?

Amber: The sun was really hot.

CPS Worker: Do you remember anything else about when it happened?

Amber: (Long pause) Nuh-uh.

CPS Worker: Okay, tell me everything you remember about what happened. Start at the very beginning.

Amber: Umm, I am hot.

CPS Worker: Okay.

Amber: And really thirsty.

CPS Worker: Uh huh.

Amber: I want a drink.

CPS Worker: (Nods)

Amber: So we go inside.

CPS Worker: Who was inside?

Amber: Me and Coach Phil.

CPS Worker: Where were you inside?

Amber: Coach Phil's room.

CPS Worker: So what happened in his room?

Amber: He says to wait.

CPS Worker: Uh huh

Amber: He comes back.

CPS Worker: What happened after that?

Amber: He closes the door.

CPS Worker: What did he do then?

Amber: He pulls me over.

CPS Worker: Uh huh

Amber: And he makes me sit down.

CPS Worker: Where did you sit down?

Amber: (Long pause) Here (touches legs, indicating lap).

CPS Worker: And then what happened?

Amber: He puts his hands in my pants. And rubs.

CPS Worker: What do you mean?

Amber: Down there, in my pee pee.

CPS Worker: What else do you remember?

Amber: Nothing (shakes head).

CPS Worker: Did he say anything to you?

Amber: Don't tell anybody.

CPS Worker: What happened after that?

Amber: He says go out.

CPS Worker: And then what?

Amber: We go outside.

CPS Worker: What did you do then?

Amber: I wait for mommy.

CPS Worker: Where were the other kids while this happened?

Amber: Umm, gone home.

CPS Worker: Were there any grownups around?

Amber: Coach J.

CPS Worker: Who is Coach J?

Amber: My other coach.

CPS Worker: And where was Coach J?

Amber: Outside.

CPS Worker: What was he doing?

Amber: (Shrugs) Putting stuff up?

CPS Worker: Have you ever been the last kid at soccer practice or aftercare any other times?

Amber: Yeah. Lots of times.

CPS Worker: Did you talk to anyone before about what happened with your coach?

Amber: Mrs. Gloria.

CPS Worker: Did you tell your mom?

Amber: No, she will be mad.

CPS Worker: Can you remember anything else?

Amber: Nuh-uh.

CPS Worker: Okay, Amber I am just making sure I have everything straight. Can you tell me again when this happened?

Amber: After soccer.

CPS Worker: Okay, did this happen a few days ago, or a couple of weeks ago, or a long time ago?

Amber: A few days ago.

CPS Worker: And where did it happen?

Amber: In the locker room...

CPS Worker: In the locker room?

Amber: Oh wait. In Coach Phil's room?

CPS Worker: And why were you in Coach Phil's room?

Amber: To call mommy to pick me up.

.....

Following her interview with Amber, the CPS worker spoke with the assistant soccer coach, Jonathan. The following is an excerpt from that interview.

.....

CPS Worker: How old are you Jonathan?

Jonathan: 17.

CPS Worker: And what do you do here?

Jonathan: My mom is one of the teachers, and I help the soccer coach.

CPS Worker: What do you usually do during practice?

Jonathan: I take care of getting out all the equipment and help Coach Phil with whatever he needs.

CPS Worker: Do you ever work directly with the children?

Jonathan: Yeah, I try to teach them some basic things.

CPS Worker: Are you ever alone with the children?

Jonathan: No. I'm not allowed to be. The school says we should make sure we only work with kids in groups and where other teachers can see us.

CPS Worker: Is Coach Phil ever alone with the children?

Jonathan: No, he is not supposed to be either.

CPS Worker: Have you seen anything or heard about any problems with Coach Phil and any of the kids?

Jonathan: No.

CPS Worker: What about Amber Benson?

Jonathan: Oh, yeah. Amber's mom is always late picking Amber up.

CPS Worker: So what happened?

Jonathan: Well, it happened so much that about a month ago, Coach Phil said he wasn't going to be able to let Amber stay in the afterschool program if Amber's mom was late one more time.

CPS Worker: When did this happen?

Jonathan: A couple of weeks ago.

CPS Worker: And nothing else happened since then?

Jonathan: No, I haven't seen anything. Is there a problem?

Please read the entire scenario below carefully. When you have completely finished reading the scenario, you may turn the page and begin answering the questions.

10-year-old: Single Abuse Allegation

On November 7th a referral was made to Child Protective Services (CPS) regarding Amber Benson, a 10-year-old fourth grade student at North Crest Elementary School. She lives with her mother, who has sole custody. Her mother works outside the home and Amber attends the afterschool childcare program.

After Amber got into an argument with another child during recess, Amber's teacher told her to sit out for the rest of recess. When Amber refused, she was sent to the assistant principal's office. While in the office, Amber became very upset and started crying uncontrollably. When the assistant principal asked Amber why she was behaving that way, she said that the soccer coach, Coach Phil, had "rubbed her butt" and "put his finger inside her private parts." The assistant principal questioned Amber and then notified Child Protective Services. The CPS worker came to the school and interviewed Amber, Amber's teacher, and the assistant soccer coach later that day.

Below you will read notes from the CPS Worker's interviews with Amber's teacher and assistant principal, and excerpts of the recorded interviews conducted with Amber and the assistant soccer coach.

Interview with Amber's Pre-Kindergarten teacher, Ms. Hyde

According to Amber's current teacher, Ms. Hyde, in the past few weeks Amber has been uncooperative with her teachers, withdrawn in class activities, and having difficulty getting along with peers. During a recent parent/teacher conference, her mother reported that she was exhibiting similar behaviors at home. Ms. Hyde stated that earlier today during recess, Amber had gotten into a fight with a peer. When told to sit out, Amber repeatedly refused, became defiant, and Ms. Hyde sent her to the assistant principal's office.

Interview with Amber's assistant principal, Mrs. Gloria

The assistant principal, Mrs. Gloria, reported that earlier today Amber was sent to her office for fighting with a peer and refusing to sit out during recess. Shortly after coming into Mrs. Gloria's office Amber became upset and started crying uncontrollably. When Mrs. Gloria asked what was wrong, Amber said that Coach Phil touched her the wrong way. When asked when this happened Amber replied that it happened after soccer practice. Mrs. Gloria then asked Amber where it happened and she said that it happened in Coach Phil's office. Mrs. Gloria then stated that she immediately called CPS.

Interview Excerpt from CPS Interview with Amber Benson

CPS Worker: Good morning Amber, how are you doing this morning?

Amber: Good.

CPS Worker: I'm Jane and it's my job to talk to kids about things that happen at home and at school. I am going to talk with you for a little while today about some things that have been happening with you. Is that okay?

Amber: (Nods yes).

CPS Worker: How old are you Amber?

Amber: Ten and a half.

CPS Worker: Do you know the difference between the truth and a lie?

Amber: Yes.

CPS Worker: What happens if you tell a lie?

Amber: You get in trouble, or you hurt someone.

CPS Worker: So do you understand that you should only tell the truth when we're talking today?

Amber: Yes.

CPS Worker: So, your mom told me you went on a school trip to the natural history museum last month, can you tell me everything you remember from the museum, from the beginning to the end?

Amber: It was pretty fun. We went on a charter bus and watched movies and played DS the whole way.

CPS Worker: What did you do when you got to the museum?

Amber: Umm, we got to look through sand to find gemstones and gold. I found a red garnet that I got to keep.

CPS Worker: What else happened?

Amber: We also got to look at dinosaur skeletons and different types of fossils.

CPS Worker: Good. What grade are you in at school, Amber?

Amber: Fourth.

CPS Worker: Who is your teacher?

Amber: Miss Hyde

CPS Worker: What do you do at school?

Amber: You usually read, and do math. You also have social studies...and science, and other classes. Art or music...It depends on what day.

CPS Worker: What about after school, what do you do?

Amber: Some days I go to afterschool care, and other days I play soccer.

CPS Worker: Do you know why I am here to talk to you today?

Amber: To talk about Coach Phil.

CPS Worker: What do you want to tell me about Coach Phil?

Amber: (no answer).

CPS Worker: Okay. What did you tell principal Gloria about Coach Phil?

Amber: I don't want to tell you.

CPS Worker: It is okay Amber. I talk to lots of kids about lots of things. I know that some things are hard to talk about. Tell me what's bothering you about your coach.

Amber: He touched my butt.

CPS Worker: How many times has this happened?

Amber: One time.

CPS Worker: Only once?

Amber: Yes.

CPS Worker: We need to talk about what happened. Is that okay?

Amber: Yeah.

CPS Worker: When did this happen?

Amber: After soccer, a while ago.

CPS Worker: Can you tell me what day it was?

Amber: I don't remember, exactly.

CPS Worker: Do you remember anything else about when it happened?

Amber: No.

CPS Worker: Okay, tell me everything you remember about what happened.

Amber: I was playing soccer and it was really sunny and hot, so I got thirsty.

CPS Worker: Okay.

Amber: I wanted a Powerade, so he said to go inside.

CPS Worker: Who was inside?

Amber: Just me and Coach Phil.

CPS Worker: Where were you inside?

Amber: Coach Phil's office.

CPS Worker: So what happened in his office?

Amber: He told me to wait while he got my Powerade. When he got back he closed the door, but he wouldn't give me my drink, so I had to go get it.

CPS Worker: Tell me what happened after that.

Amber: He pulled me over by my arm and made me sit down in his chair, on his lap.

CPS Worker: And then what happened?

Amber: He put his hands in my pants. And rubbed my private parts.

CPS Worker: What else do you remember?

Amber: There's not much else, really (shakes head).

CPS Worker: Did he say anything to you?

Amber: Not to tell anyone.

CPS Worker: What happened after that?

Amber: He said go back outside, so we did and I waited for my mom.

CPS Worker: Where were the other kids while this happened?

Amber: Umm, they had already gone home.

CPS Worker: Were there any grownups around?

Amber: Just my other soccer coach, Coach J.

CPS Worker: And where was Coach J?

Amber: Outside putting stuff up.

CPS Worker: Have you ever been the last kid at soccer practice or aftercare any other times?

Amber: Yeah. My mom is late all the time.

CPS Worker: Did you talk to anyone before about what happened with your coach?

Amber: Just Mrs. Gloria.

CPS Worker: Did you tell your mom?

Amber: No, she will be mad.

CPS Worker: Can you remember anything else?

Amber: No.

CPS Worker: Okay, did this happen a few days ago, or a couple of weeks ago, or a long time ago?

Amber: A long time ago.

CPS Worker: And where did it happen?

Amber: In Coach Phil's office.

CPS Worker: And why were you in Coach Phil's office?

Amber: To get a Powerade.

.....
Following her interview with Amber, the CPS worker spoke with the assistant soccer coach, Jonathan. The following is an excerpt from that interview.
.....

CPS Worker: How old are you Jonathan?

Jonathan: 17.

CPS Worker: And what do you do here?

Jonathan: My mom is one of the teachers, and I help the soccer coach.

CPS Worker: What do you usually do during practice?

Jonathan: I take care of getting out all the equipment and help Coach Phil with whatever he needs.

CPS Worker: Do you ever work directly with the children?

Jonathan: Yeah, I try to teach them some basic things.

CPS Worker: Are you ever alone with the children?

Jonathan: No. I'm not allowed to be. The school says we should make sure we only work with kids in groups and where other teachers can see us.

CPS Worker: Is Coach Phil ever alone with the children?

Jonathan: No, he is not supposed to be either.

CPS Worker: Have you seen anything or heard about any problems with Coach Phil and any of the kids?

Jonathan: No.

CPS Worker: What about Amber Benson?

Jonathan: Oh, yeah. Amber's mom is always late picking Amber up.

CPS Worker: So what happened?

Jonathan: Well, it happened so much that about a month ago, Coach Phil said he wasn't going to be able to let Amber stay in the afterschool program if Amber's mom was late one more time.

CPS Worker: When did this happen?

Jonathan: A couple of weeks ago.

CPS Worker: And nothing else happened since then?

Jonathan: No, I haven't seen anything. Is there a problem?

Please read the entire scenario below carefully. When you have completely finished reading the scenario, you may turn the page and begin answering the questions.

10-year-old: Repeated Abuse Allegation

On November 7th a referral was made to Child Protective Services (CPS) regarding Amber Benson, a 10-year-old fourth grade student at North Crest Elementary School. She lives with her mother, who has sole custody. Her mother works outside the home and Amber attends the afterschool childcare program.

After Amber got into an argument with another child during recess, Amber's teacher told her to sit out for the rest of recess. When Amber refused, she was sent to the assistant principal's office. While in the office, Amber became very upset and started crying uncontrollably. When the assistant principal asked Amber why she was behaving that way, she said that the soccer coach, Coach Phil, had "rubbed her butt" and "put his finger inside her private parts." The assistant principal questioned Amber and then notified Child Protective Services. The CPS worker came to the school and interviewed Amber, Amber's teacher, and the assistant soccer coach later that day.

Below you will read notes from the CPS Worker's interviews with Amber's teacher and assistant principal, and excerpts of the recorded interviews conducted with Amber and the assistant soccer coach.

Interview with Amber's Pre-Kindergarten teacher, Ms. Hyde

According to Amber's current teacher, Ms. Hyde, in the past few weeks Amber has been uncooperative with her teachers, withdrawn in class activities, and having difficulty getting along with peers. During a recent parent/teacher conference, her mother reported that she was exhibiting similar behaviors at home. Ms. Hyde stated that earlier today during recess, Amber had gotten into a fight with a peer. When told to sit out of recess, Amber repeatedly refused, became defiant, and Ms. Hyde sent her to the assistant principal's office.

Interview with Amber's assistant principal, Mrs. Gloria

The assistant principal, Mrs. Gloria, reported that earlier today Amber was sent to her office for fighting with a peer and refusing to sit out during recess. Shortly after coming into Mrs. Gloria's office Amber became upset and started crying uncontrollably. When Mrs. Gloria asked what was wrong, Amber said that Coach Phil touched her the wrong way. When asked when this happened Amber replied that it was after soccer practice. Mrs. Gloria then asked Amber where it happened and she said that it happened in Coach Phil's office. Mrs. Gloria then stated that she immediately called CPS.

Interview Excerpt from CPS Interview with Amber Benson

CPS Worker: Good morning Amber, how are you doing this morning?

Amber: Good.

CPS Worker: I'm Jane and it's my job to talk to kids about things that happen at home and at school. I am going to talk with you for a little while today about some things that have been happening with you. Is that okay?

Amber: (Nods yes).

CPS Worker: How old are you Amber?

Amber: Ten and a half.

CPS Worker: Do you know the difference between the truth and a lie?

Amber: Yes.

CPS Worker: What happens if you tell a lie?

Amber: You get in trouble, or you hurt someone.

CPS Worker: So do you understand that you should only tell the truth when we're talking today?

Amber: Yes.

CPS Worker: So, your mom told me you went on a school trip to the natural history museum last month, can you tell me everything you remember from the museum, from the beginning to the end?

Amber: It was pretty fun. We went on a charter bus and watched movies and played DS the whole way.

CPS Worker: What did you do when you got to the museum?

Amber: Umm, we got to look through sand to find gemstones and gold. I found a red garnet that I got to keep.

CPS Worker: What else happened?

Amber: We also got to look at dinosaur skeletons and different types of fossils.

CPS Worker: Good. What grade are you in at school, Amber?

Amber: Fourth.

CPS Worker: Who is your teacher?

Amber: Miss Hyde

CPS Worker: What do you do at school?

Amber: You usually read, and do math. You also have social studies, and science.....and other classes. Art, or music...It depends on what day.

CPS Worker: What about after school, what do you do?

Amber: Some days I go to afterschool care, and other days I play soccer.

CPS Worker: Do you know why I am here to talk to you today?

Amber: To talk about Coach Phil.

CPS Worker: What do you want to tell me about Coach Phil?

Amber: (no answer).

CPS Worker: Okay. What did you tell principal Gloria about Coach Phil?

Amber: I don't want to tell you.

CPS Worker: It is okay Amber. I talk to lots of kids about lots of things. I know that some things are hard to talk about. Tell me what's bothering you about your coach.

Amber: He touches my butt.

CPS Worker: How many times has this happened?

Amber: I don't really know. Lots of times.

CPS Worker: So it has happened more than once?

Amber: Yes.

CPS Worker: Let's talk about the last time this happened. Is that okay?

Amber: Yeah.

CPS Worker: When was the last time this happened?

Amber: After soccer a while ago.

CPS Worker: Can you tell me what day it was?

Amber: Umm, I don't remember exactly.

CPS Worker: Do you remember anything else about when it happened?

Amber: (Long pause) Maybe a couple of weeks ago?

CPS Worker: Okay, tell me everything you remember about what happened.

Amber: I am playing soccer and get thirsty, like always.

CPS Worker: Okay.

Amber: I want a drink, so he says to go inside.

CPS Worker: Who was inside?

Amber: Just me and Coach Phil.

CPS Worker: Where were you inside?

Amber: Coach Phil's office.

CPS Worker: So what happened in his office?

Amber: He tells me to wait there. And when he comes back, he closes the door.

CPS Worker: Tell me what happened after that.

Amber: He pulls me over and makes me sit down on his lap.

CPS Worker: And then what happened?

Amber: He puts his hands in my pants. And rubs my private parts.

CPS Worker: What else do you remember?

Amber: There's not much else, really (shakes head).

CPS Worker: Did he say anything to you?

Amber: He said not to tell anyone.

CPS Worker: What happened after that?

Amber: He says go back outside, so we go outside and I wait for my mom.

CPS Worker: Where were the other kids while this happened?

Amber: Umm, they had already gone home.

CPS Worker: Were there any grownups around?

Amber: Just my other soccer coach, Coach J.

CPS Worker: And where was Coach J?

Amber: Outside, putting stuff up.

CPS Worker: Have you ever been the last kid at soccer practice or aftercare any other times?

Amber: Yeah. My mom is late all the time.

CPS Worker: Did you talk to anyone before about what happened with your coach?

Amber: Just Mrs. Gloria.

CPS Worker: Did you tell your mom?

Amber: No, she will be mad.

CPS Worker: Can you remember anything else?

Amber: No.

CPS Worker: Okay, Amber I am just making sure I have everything straight. Can you tell me again when this happened?

Amber: After soccer.

CPS Worker: Okay, did this happen a few days ago, or a couple of weeks ago, or a long time ago?

Amber: A few days ago.

CPS Worker: And where did it happen?

Amber: In the locker room...Oh wait. In Coach Phil's office?

CPS Worker: And why were you in Coach Phil's office?

Amber: To get a drink.

.....

Following her interview with Amber, the CPS worker spoke with the assistant soccer coach, Jonathan. The following is an excerpt from that interview.

.....

CPS Worker: How old are you Jonathan?

Jonathan: 17.

CPS Worker: And what do you do here?

Jonathan: My mom is one of the teachers, and I help the soccer coach.

CPS Worker: What do you usually do during practice?

Jonathan: I take care of getting out all the equipment and help Coach Phil with whatever he needs.

CPS Worker: Do you ever work directly with the children?

Jonathan: Yeah, I try to teach them some basic things.

CPS Worker: Are you ever alone with the children?

Jonathan: No. I'm not allowed to be. The school says we should make sure we only work with kids in groups and where other teachers can see us.

CPS Worker: Is Coach Phil ever alone with the children?

Jonathan: No, he is not supposed to be either.

CPS Worker: Have you seen anything or heard about any problems with Coach Phil and any of the kids?

Jonathan: No.

CPS Worker: What about Amber Benson?

Jonathan: Oh, yeah. Amber's mom is always late picking Amber up.

CPS Worker: So what happened?

Jonathan: Well, it happened so much that about a month ago, Coach Phil said he wasn't going to be able to let Amber stay in the afterschool program if Amber's mom was late one more time.

CPS Worker: When did this happen?

Jonathan: A couple of weeks ago.

CPS Worker: And nothing else happened since then?

Jonathan: No, I haven't seen anything. Is there a problem?

APPENDIX C
CREDIBILITY QUESTIONNAIRE

Please read the following questions carefully and attempt to answer each question to the best of your ability.

1. How old is Amber? _____

2. How many times was Amber allegedly abused?

- a) Once
- b) More than once
- c) It is not stated

3. Who did Amber first tell about the assault by her coach? *(Please only circle one)*

- a) Her mom
- b) Her teacher
- c) The school nurse
- d) The principal

4. Do you believe Amber's allegation against her soccer coach? *(Please only circle one)*

- a) Yes
- b) No

5. How much do you believe Amber's allegation against her soccer coach? *(Please only circle one)*

1 2 3 4 5 6 7

(Not at all)

(Neutral)

(Very Much)

6. Please provide three reasons for your answer above:

1. _____

2. _____

3. _____

7. Do you believe Amber is: *(Please only circle one)*

- a) Telling the truth accurately
- b) Honestly mistaken

APPENDIX D
IRB APPROVAL LETTER

MEMORANDUM

TO: Dr. Amye Warren
Ms. Natalie Kulisek **IRB # 11- 130**

FROM: Lindsay Pardue, Director of Research Integrity
Dr. Bart Weathington, IRB Committee Chair

DATE: October 1, 2013

SUBJECT: IRB # 11-130: Credibility of First versus Second Child Abuse Allegations

The Institutional Review Board has reviewed and approved the following changes for the IRB project listed below:

- Ms. Natalie Kulisek as an investigator
- Changes to the scenario presented
- Changes to the informed consent form and questionnaire given

The Institutional Review Board of the University of Tennessee at Chattanooga (FWA00004149) has approved this research project # 11-130.

Please remember that you must complete a Certification for Changes, Annual Review, or Project Termination/Completion Form when the project is completed or provide an annual report if the project takes over one year to complete. The IRB Committee will make every effort to remind you prior to your anniversary date; however, it is your responsibility to ensure that this additional step is satisfied.

Please remember to contact the IRB Committee immediately and submit a new project proposal for review if significant changes occur in your research design or in any instruments used in conducting the study. You should also contact the IRB Committee immediately if you encounter any adverse effects during your project that pose a risk to your subjects.

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

Best wishes for a successful research project.

VITA

Natalie Ryan Kulsiek is from Chattanooga, TN. She attended the University of Tennessee at Knoxville, where she received a Bachelor of Arts in Psychology in May 2012. After graduation, she returned to Chattanooga to pursue her Master's degree in Research Psychology at the University of Tennessee at Chattanooga. She worked as a graduate assistant at the STEM Education program and taught several undergraduate Psychology courses. While at the University of Tennessee at Chattanooga she presented posters at several conferences and participated in fellow graduate students' research.