

How do Contextual Factors and Family Support Influence Disclosure of Child Sexual Abuse During Forensic Interviews and Service Outcomes in Child Protection Cases?

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Dedication

This dissertation is dedicated to Nate and Neil, who give me the best reasons to enjoy the balance of work and play.

Abstract

For child survivors of sexual abuse, the decision to disclose is complex and fraught with uncertainty. Even when sexual abuse is disclosed and an investigation ensues, children don't always disclose their experiences readily or with much detail. While most research has focused on understanding factors related to initial disclosure, little research has examined the factors related to active or tentative disclosure in the context of forensic interviews, and its relationship with family support, and outcomes after disclosure. Understanding the factors related to an active or tentative disclosure is important in since the child's ability to provide details of the abuse, and to appear credible, may influence short-term and long-term outcomes. The purpose of this research was to understand whether child characteristics, abuse specific factors, and the level of family support significantly predict both how children disclose sexual abuse during forensic interviews and outcomes in child protection cases. The Process of Disclosure Model and Social Exchange Theory provided frameworks to examine significant factors that may influence children when they consider how to disclose abuse within a forensic interview.

Using a secondary data analysis of existing records, this quantitative study examined factors related to active and tentative disclosure of child sexual abuse during forensic interviews. Content analysis was used to code 196 previously conducted video-taped forensic interviews and corresponding case files. Cases were then matched to corresponding child protection cases to examine service and family living situation outcomes.

Using logistic regression, findings indicate that older children, Multi/Bi-racial children, delayed and witnessed initial disclosure, abuse by an adult, and children with unsupportive families were significantly more likely to tentatively disclose. Children were significantly more likely to receive counseling and referrals for basic needs services if they had experienced more severe abuse and had unsupportive families. Children were more likely to be removed from the home if they were African American or Multi/Bi-racial, had an unsupportive family, and who were related to the perpetrator. Children were also significantly more likely to have a safety plan implemented in the home if they were Hispanic, experienced more severe abuse, and were related to the perpetrator.

Implications for child welfare policy and social work practice include a need to better understand tentative disclosure, more integration of cultural competency into training for forensic interviewers and child welfare workers, and an emphasis on using strengths based practice to engage non-offending family members.

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Chapter One: Introduction

Child sexual abuse (CSA) is a widespread and often silent epidemic which thousands of children in the United States face each year. Sexual abuse can occur one time or over the span of several years. Perpetrators are usually known to the child and can be a related family member or another trusted adult or peer. For child survivors of sexual abuse, the decision to disclose abuse is complicated and children may perceive the possibility of negative outcomes after disclosure as being too great, therefore, they keep quiet. To understand the complexity of disclosing child sexual abuse, research has largely focused on initial disclosure, yet little research has examined disclosure in the context of forensic interviews, the role of family support, and outcomes after disclosure. The purpose of this research is to understand whether child characteristics, abuse specific factors, and the level of family support significantly predict both how children disclose sexual abuse during forensic interviews and service outcomes in child protection cases.

First, however, to fully understand the issue of child sexual abuse (CSA) within the United States, it is necessary to provide some context of the scope of the problem and prevalence, the history of reporting sexual abuse allegations, and the current systems in place to process and investigate allegations of CSA. To accomplish this, this chapter is divided into three main sections. The first section provides a general overview of CSA in the United States. The second section provides an overview of the history of reporting of CSA within the United States. The third section is an overview of the established systems in place to report and investigate CSA allegations within the United States. The chapter concludes with a statement of purpose of the current study, along with a brief overview of each of the subsequent chapters in this dissertation.

Problem Overview of CSA in the United States

Within this section, a definition of CSA is provided, followed by an overview of the issue of determining the prevalence of CSA. This section ends with a brief overview of the issue of CSA survivors accessing services.

Definition of CSA. Sexual abuse is defined by the Child Abuse Prevention and Treatment Act (CAPTA) as:

The employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or the rape, and in cases of caretaker or inter-familial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children (Children's Bureau, 2010a).

While definitions of child sexual abuse can differ depending on the program, organization, or policy, the most inclusive definitions include facets of coercion and power dynamics between a child and the perpetrator. The definition included within CAPTA contains these elements as well as touch and non-touch behaviors. As the first federal legislation that addressed child abuse and neglect prevention, CAPTA sets precedence for intervention, mandated reporting and prevention policy. Thus, for the purpose of this study, the definition of CSA as set forth by CAPTA is the most appropriate.

Prevalence of CSA. The issue of child sexual abuse is considered to be a major problem in the United States, but the exact prevalence is not easy to verify. However, it has received increased attention within the last few decades through the efforts of child

advocates, researchers, and media attention. Although the exact prevalence is difficult to determine, the Children's Bureau (2010b) estimates that of the nearly 750,000 children who are abused annually, 9.2% of those children were sexually abused. Although this is a startling number, it is important to note that these statistics represent only cases where abuse was reported and substantiated, which is likely much lower than the actual prevalence of sexual abuse since sexual abuse is often not disclosed or reported. Furthermore, of the reports made regarding suspected child maltreatment, only one third are substantiated (Children's Bureau, 2010b). One study estimated that as many as one in three girls and one in seven boys will be sexually abused at some point in their childhood in the United States (Briere & Elliott, 2003) with only 30% of cases being reported to authorities (Finkelhor & Jones, 2006). Another study estimated that anywhere from 73% to 87% of female children abused each year are not being identified, assessed, and treated (Bolen & Scannapieco, 1999). From the large differences in estimates of CSA prevalence, it is clear that even just determining when sexual abuse is occurring continues to be a serious issue, let alone ensuring that children who have been abused will receive the help that they need to recover.

Financial cost of CSA to society. In addition to CSA as being viewed as a widespread and serious problem, it is also incredibly expensive. Estimates for the financial costs related to child sexual abuse exceed 35 billion dollars annually (Darkness to Light, 2012). Costs related to child sexual abuse include the investigation, prosecution, imprisonment and detention, and treatment of perpetrators of offenders. Costs also include medical and mental health treatment for children and adults who have been sexually abused. One study found that health care costs were significantly higher

for women who had histories of sexual abuse as compared to women with histories of other types of maltreatment (Bonomi, et al., 2008).

CSA survivors' access to services. Even though there are enormous financial costs related to CSA, including the medical and mental health treatment for survivors and perpetrators, many sexually abused children are not receiving services they need to recover. Of children who have been maltreated each year, the Children's Defense Fund (2010) estimates that nearly 40% of all reported cases of child maltreatment, including any type of abuse, do not receive any services. This only includes cases which have been reported and does not include cases of abuse and neglect that have not been reported. Children who have been sexually abused receive more services as compared to children who experience other forms of abuse and neglect, but they are also in greater need of services since more children who have been sexually abused present with clinically significant issues as compared to children who have experienced other types of abuse or neglect (Walrath et al., 2003). One study found that nearly 80% of children who are sexually abused suffer from post-traumatic stress disorder (Dube, et al, 2005). And women who have histories of child sexual abuse report more drug use and higher rates of depression, but also accessed both health and mental health services more often than those without differing types of child abuse and neglect histories (Bonomi, et al., 2008). However, if abuse is not disclosed or reported, children who have been sexually abused will not receive the services they need to recover.

History of Reporting and Investigating CSA in the United States

The current system in place to report and investigate cases of CSA is relatively new. In the 1970s within the United States, a system of dealing with allegations of CSA

changed dramatically with the passage of the first version of CAPTA, the Child Abuse Prevention and Treatment Act (also known as the Mondale Act). With this passage, mandated reporting was implemented as a system used to report suspected cases of CSA (for a discussion on the current system of mandated reporting, see the next section of this chapter). With the passage of CAPTA in 1974, a dramatic increase of reported cases of CSA occurred until the early 1990s, when substantiated cases began to drop (Finkelhor & Jones, 2006). With the dramatic increase in reports, the system was underprepared to handle the investigation of cases properly. . Children were forced to tell their stories of abuse over and over to different professionals such as child protection social workers, counselors or psychologists, law enforcement, medical professionals, and attorneys. Many children were re-traumatized in the re-telling of their stories and cases were mismanaged resulting in children and families distrusting the system that was supposed to help them (National Children's Advocacy Center, 2014).

Furthermore, in addition to the issue of the lack of coordination among professionals, the way in which children were interviewed about the abuse was flawed. Research on 'best practice' children did not emerge until the mid 1990s and interview protocols had not yet been established. Therefore, some children were subjected to suggestive and leading questioning tactics. After decades of research, the system has adapted itself to use specific interviewing techniques to move towards eliminating suggestive questioning and interviewer bias when interviewing children about CSA allegations (Bruck, Ceci, & Hembrooke, 1998; Faller, 2007). Using non-suggestive and leading interviewing techniques has allowed children to describe the abuse in their own words, without suggestive prompts that may taint their statements or testimony (Ceci &

Bruck, 1993; Faller, 2007). As Bruck et al., argue, when using correct interviewing techniques, children can provide both reliable and credible accounts of abuse.

Current Systems to Report and Investigate Allegations of CSA

Beginning in the 1980s, social service providers realized that the system of how reported cases of CSA were being handled needed to change. As a result, steps have been taken to ensure that when reported allegations of sexual abuse are made, the system in place will provide a structure for processing, investigating, and prosecuting these allegations in a reliable and credible way. This not only protects children and families, it also protects those who have had allegations made against them until further evidence is gathered, and also protects concerned family members and professionals who make reports of suspected CSA. In this final section, an overview of the current systems used to process and investigate allegations of CSA is provided. The first is a brief introduction to mandated reporting. The second is a description of children's advocacy centers (CACs), and the third portion of this section provides an overview of the forensic interview: what it is, who conducts them, and the main protocols used within the United States, including the protocol used in the present study.

Mandated reporting. In the United States, mandated reporting is the main established system for concerned citizens and professionals to report suspected maltreatment, including child sexual abuse. Currently, 48 states have laws which mandate certain professionals to report suspected abuse of children including social workers, school personnel, health-care workers, mental health professionals, child care providers, law enforcement, and in some states, clergy (Child Welfare Information Gateway, 2012). While mandated reporting can identify children who are being abused

without disclosure, research has found that some professionals are reluctant or uninformed about whether to make a report. Reasons to not report include uncertainty of whether a report should be made (Levi & Brown, 2005), concern that a report would disrupt the professional's relationship with the family (Wiley, 2009), and the belief that it will not help the situation or make things worse for the child (Alvarez, Kenny, Donohue, & Carpin, 2004). Despite these issues, mandated reporting continues to be most systematic way to report suspected abuse.

Children's advocacy centers (CACs). Once a report has been made to law enforcement or child protection authorities, reports that are substantiated and deemed in need of further investigation are referred to local systems in place to continue the investigation. In some communities, children are interviewed at hospitals, police stations, in schools, or in child protection offices. Children may need to talk about the abuse to multiple professionals, potentially re-traumatizing them and damaging their credibility when they are questioned repeatedly. However, some communities operate using a different model designed to increase the provision of services to children and families and provide better case coordination while preventing further trauma to the children through the investigation process. This model is known as the Children's Advocacy Center (CAC) model. The Children's Advocacy Center model has been implemented by over 800 communities in the United States. Starting in the 1980s, CACs have strived to provide a child friendly facility where investigative and supportive services are provided in one location. The current standard practice promotes a multidisciplinary team approach where investigators from child protective services and law enforcement, as well as prosecuting attorneys and medical professionals work

together to handle the case. CACs are designed to protect children from further victimization and trauma after they disclose abuse (National Children's Alliance, 2009). Research has consistently shown that CACs provide more referrals of services for children and families including medical exams and counseling as well as higher rates of prosecution and conviction rates (Cross et al., 2008; Jones, Cross, Walsh, & Simone, 2005; Miller & Rubin, 2009; Smith, Witte, & Fricker-Elhai, 2006).

Forensic interviews. Forensic interviews are important to the investigation and prosecution of sexual abuse. After children disclose abuse, or if suspected abuse is reported, a child will be interviewed by law enforcement, a child protection investigator, or a specially trained forensic interviewer. Forensic interviews can occur at police stations, at child protection offices, in hospitals or at CACs. The forensic interview seeks to obtain as much accurate, autobiographical information as possible from the child as it pertains to the allegation of abuse. In the CAC model, care is taken to limit the number of interviews a child is subject to, minimizing if not eliminating redundant interviewing and perceived negative consequences for the child in terms of undue stress or re-traumatization. Because of the demands of the forensic interview setting and dynamics of child sexual abuse, children may present as anxious, reluctant or embarrassed, creating barriers for the forensic interviewer in learning what the child knows. The forensic interviewer's task is to employ strategies that maximize the child's capacity for transparency while not sacrificing the forensic integrity of the interaction (CornerHouse, 2012).

The importance of interview structure and technique: Open-ended questioning.

The structure and interview technique also plays a vital role in eliciting disclosure

(Cronch, Viljoen, & Hansen, 2006; Lamb & Brown, 2006). Interviewers using improper techniques may elicit incomplete or false reports potentially resulting in loss of credibility in what children do disclose, both which can have significant negative consequences for children (Wood & Garven, 2000). In an effort to evaluate interview structure and technique, research has focused primarily on which question types elicit the most informative responses from children. Studies show that forensic interviews utilizing open ended question types during rapport and throughout the interview are superior to directive or close ended questions during rapport and in the duration of the interview (Hershkowitz, 2009; Lamb, Hershkowitz, & Sternberg, 1996; Sternberg et al, 1997). Sternberg et al (1997) found that children who were interviewed using open ended questions during the rapport section provided significantly more details during the interview as compared to children who were interviewed with direct questions during rapport. This study established the importance of preparing children to answer open ended questions with more depth and detail as opposed to direct questions which children often answer with a few words or short phrases. Similarly, Lamb, Hershkowitz, and Sternberg (1996) found that using open ended question styles elicited lengthier and more detailed answers as compared to children were interviewed using directive or suggestive questioning. Children are also less likely to make contradictory statements when questioned using open ended utterances (Lamb & Fauchier, 2001), thus making their statements more credible.

Narrative practice. To support the use of open ended questioning styles during the rapport section of the forensic interview, researchers and practitioners widely recommend using narrative practice (Lyon, 2010; National Children's Advocacy Center,

2011b; Saywitz, Lyon, & Goodman, 2011). Narrative practice can increase rapport and trust between the child and interviewer as the interviewer asks the child to talk about a neutral topic of interest while genuinely attending to what the child has to say. This allows the child to do most of the talking, thus making them the expert during the interview, and also allows the child to become accustomed to the unique conversational style of a forensic interview as they progress into discussing the allegation (Cordisco Steele, 2010). Open-ended questioning has been promoted in forensic interview protocols for some time as in the Cognitive Interview (Fisher & Geiselman, 1992; Saywitz, Geiselman, & Bornstein, 1992). However, training in episodic memory during the forensic interview was first developed and researched by the National Institute of Child Health and Human Development (NICHD) in their investigative interview protocol (Orbach et al., 2000).

The CornerHouse forensic interview protocol. The CornerHouse Forensic Interview Protocol, the interview used in the current study, is the most widely trained forensic interview protocol in the United States and fifty-two percent of all CACs report being trained in the model (National Children's Advocacy Center, 2011a). The protocol was initially developed in 1989 by CornerHouse, a Children's Advocacy Center in Minneapolis, Minnesota and first taught in a 5-day forensic interview training format by CornerHouse in 1990. The Protocol has undergone regular updating and revisions over the years as new research and information has emerged in the field; most recently the protocol was significantly revised including the identification of stages, approaches and methods as of January, 2013. To date, CornerHouse has trained almost 26,000 professionals from every state in the continental United States, Alaska, sixteen foreign

countries, and five continents. The CornerHouse interview is not only widely used, but is highly regarded within the United States legal system and has been upheld in several states through appellate court opinions for providing expert forensic testimony (*Baker v. State*, 2001; *Mooneyham v. State*, 2005; *State v. Douglas*, 2006; *State v. Hollander*, 1999; *Wright v. Texas*, 2007).

The CornerHouse Protocol holds three guiding principles; it is person-centered, semi-structured, and forensically sound. Individuals are treated with dignity and respect. The interview is based on the idea that children are experts on their own experiences and are less likely to experience harm if they have opportunities to communicate in their own ways. The semi-structured nature of the interviews provides for coverage of similar topics in each interview, it also allows for flexibility in how the interviewer approaches the topics. The flexibility of semi-structured interviews allows interviewers to be sensitive and responsive to the developmental and emotional needs of the children. Inquiry is intended to elicit accurate narrative. Interviewers using this protocol rely on open-ended questions, an unbiased perspective, and avoid leading and suggestive techniques. In addition to questions, interviewers may also employ the use of interview aids including drawings, diagrams, and anatomical dolls, if deemed appropriate by a trained interviewer (Anderson, et. al., 2010). The format of questions used is guided by Invitation and Inquiry, which emphasizes open ended prompts and questions (CornerHouse, 2013).

Overview of Study

Based upon the historical context of reporting of CSA and the continued improvements of system responses and forensic interviewing techniques through

evaluation and research, it is clear that the system of processing and investigating CSA has improved dramatically over the past few decades. Yet, because sexual abuse isn't always disclosed and reported, not all children who experience sexual abuse will receive a forensic interview or services they may need to recover. Even when sexual abuse is disclosed, children don't always disclose their experiences with detail and may do so very reluctantly. In some cases, lack of detail and ability to provide context of the abusive experience can result in the case not going forward with prosecution or adequate services for the child, non-offending family members, or the alleged perpetrator. Therefore, understanding disclosure within the context of the forensic interview process is of vital importance. Understanding disclosure occurs across many levels: at the level of the individual child, the circumstances of the abuse, and the level of family support.

The purpose of the current study is to understand whether child characteristics and contextual factors significantly predict both how children disclose sexual abuse during forensic interviews and service outcomes in child protection cases. By adding to existing knowledge on how contextual factors influence disclosure, and adding new knowledge with how family support influences disclosure and connecting each of these factors to outcomes, this research will be helpful to practitioners working with children and families undergoing this process. Specifically, it may help identify whether certain children are more reluctant to disclose, which may influence the overall outcomes and help they receive. The three research questions of this study included: (1) How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?; (2) Are family service outcomes in child protection cases predicted by child

characteristics, abuse specific factors, and family support?; and (3) Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support? The current study adopted frameworks related to the process of CSA disclosure and social exchange theory to focus on the various factors children may consider when they consider disclosing with a forensic interview. Subsequent chapters are briefly described here.

Chapter Two provides a summary of the conceptual and theoretical frameworks used to inform the current study. These frameworks guided the research questions and hypotheses and interpretation of the findings in the context of the literature. This study used several theoretical frameworks in order to fully acknowledge the complex interactions of factors between the individual, family, and environment and disclosure of CSA. The Ecological perspective by Bronfenbrenner (1979) is useful in providing a general basis for examining the different levels of the environment which may influence the decision to disclose for the child. In addition to the ecological perspective, models of CSA disclosure were used to further understand how children may disclose CSA, both initially and during a formal investigation. These models include Summit's Child Sexual Abuse Accommodation Syndrome (1983) and Sorenson and Snow's (1991) Process of Disclosure model. Both models are widely known and have been cited extensively in the literature. Sorenson and Snow's Process of Disclosure Model was especially useful as it informed the current study's outcomes and definitions of active and tentative disclosure. Finally, an application of the Social Exchange theory to Summit's model, conceptualized by Leonard (1996) was used to understand the costs and rewards children might consider when they disclosing in a forensic interview. If the costs outweigh the rewards, children

might be hesitant to fully disclose in this context. Although each of these theoretical frameworks was useful in the conceptualization of the overall study, Sorenson and Snow's Process of Disclosure model and Leonard's Social Exchange theory applied to CSA disclosure were especially important to the overall guiding framework of the study and in the interpretation of the findings.

The third chapter provides an overview of the existing literature on CSA disclosure, including gaps within the literature. While there is an abundance of literature on initial disclosure of CSA, there are several issues that exist. One overarching issue in this body of research is that many have used retrospective surveys, asking adults to recall why they didn't disclose or delayed initial disclosure. Some studies used random samples with large surveys, but many use in-depth interviews or small convenience samples within a population receiving clinical therapy. Therefore, results from these studies can't be generalized to the larger population. The body of literature on disclosure within the context of formal investigations and forensic interviews is not nearly as robust as the literature on initial disclosure. Each of the studies also tends to be rather small, using mostly non-representative samples. Within this research, factors such as the child's race/ethnicity and culture and family support and disclosure within forensic interviews have been especially overlooked. There is also very little research in general on outcomes for services and family living situations in cases of child sexual abuse after the child has participated in a forensic interview. Thus, the purpose of the current study is to contribute findings to the existing gaps within the literature on the factors that influence disclosure of CSA within forensic interviews and to examine outcomes within child protection cases for children and families after forensic interviews.

Chapter four outlines the methods used in the current study. This was a quantitative study consisting of two phases of data collection. The first phase was based on a secondary data analysis where children disclosed sexual abuse during forensic interviews. Using content analysis, data was collected by watching videotaped forensic interviews one time and by reviewing case files. Data from these records for each case included children's demographics, information related to the abuse, whether the family was supportive or not, and the way the child disclosed, either actively or tentatively, during the interview. The second phase of data collection connected the previously coded forensic interview cases to case records in the Hennepin County child protection department. Data collected from the child protection case records included the type of services offered to the child and family and the family living situation. Types of services offered included individual counseling for the child and referrals to the family for basic needs such as housing, medical, or food assistance. Family living situation data included whether the child remained in the home, or if they were removed, and whether a safety plan was implemented in the home. Research questions and hypotheses are described in detail and in connection to the existing literature and theoretical frameworks. Key outcome and predictor variables used in the study are defined and described in detail. Finally, data collection and coding using content analysis is described, along with the statistical analysis used in the study. Logistic regression was used to analyze the data.

Chapter five outlines the findings from the analysis of both phases of the study. Using logistic regression and descriptive statistics, findings show that Multi/Bi-racial children were significantly more likely to tentatively disclose during the forensic interview. The type of initial disclosure prior to the forensic interview also significantly

predicted disclosure during the forensic interview. Abuse by an adult and lack of family support significantly predicted a child's tentative disclosure within the forensic interview. For outcomes within child protection cases, children were significantly more likely to receive counseling if they had experienced more severe abuse and had unsupportive families. Similarly, children's families were significantly more likely to receive referrals for basic needs services if the child experienced more severe abuse, had an unsupportive family, and were abused by a related perpetrator. Children were significantly more likely to be removed from the home if they were African American or Multi/Bi-racial, had an unsupportive family, and who were related to the perpetrator. Children were significantly more likely to have a safety plan implemented in the home if they were Hispanic, experienced more severe abuse, and were related to the perpetrator. The child's age was significant for disclosure and safety plan implementation, but had a very small effect as the odds were very close to 1. The child's gender and mental health diagnosis/disability were not significant for disclosure type or outcomes in services or family living situations. Perpetrator threats were not significant in relation to any of the outcomes of disclosure or outcomes in services or family living situations.

Chapter six provides an in-depth discussion of the study's findings, both the significant and non-significant findings. This discussion is provided within the context of the existing literature of disclosure of CSA and outcomes in child protection cases. Findings related to Leonard's (1996) social exchange theory to CSA disclosure are discussed in context of each of the factors related to active or tentative disclosure. An overall discussion of how the study's findings relate to Sorenson and Snow's (1991) Process of Disclosure model concludes the section on findings related to disclosure.

Overall, findings will contribute more knowledge to the existing body of research on CSA disclosure within forensic interviews. Findings from this study also contribute to the existing body of research on disclosure of CSA within forensic interviews, it also provides new information to the existing gaps within the literature. While these findings offer new information in the field of disclosure of CSA during forensic interviews, there were several limitations. The limitations in this study are common limitations in any kind of field research, especially when examining disclosure of sexual abuse during forensic interviews. These limitations included a small, non-random sample with some findings producing small effects, reliance on gathering data from existing case files and forensic interviews that may have contained inaccuracies, and the use of content analysis instead of a validated measure.

This study concludes with a discussion of implications for social work practice and policy in Chapter eight. These implications are linked to the study's key findings and are related to a discussion on how our current systems and policies view disclosure of CSA within forensic interviews and what our system's expectations for these children, and their families, are. Also included is an exploration of the implications for practice; specifically examining how families can be more engaged and informed through supportive, strength based services. Chapter eight concludes with a section on implications for future research.

Chapter Two: Theoretical Frameworks

To fully understand why disclosure of CSA is so difficult for children, theoretical frameworks that acknowledge the complex interactions between the individual, family, and environment are useful. One such framework is Bronfenbrenner's (1979) ecological perspective. In addition, models that explain the process of disclosure of CSA are helpful in understanding how children experience the disclosure process. These models include Summit's Child Sexual Abuse Accommodation Syndrome (1983) and Sorenson & Snow's (1991) Process of Disclosure model. Finally, Leonard's (1996) application of social exchange theory to models of CSA disclosure is useful in recognizing how children weigh the rewards and costs of disclosing abuse.

The Ecological Perspective

Bronfenbrenner's (1979) ecological perspective is one of the core theoretical frameworks of social work practice and has been used to conceptualize CSA disclosure. Ecological theory has also been used to understand other forms of child maltreatment, family illness, and community violence (Cummings et al., 2010; Fitzgerald et al., 2008; Pedersen & Revenson, 2005). While it has been utilized within social work for several decades, the ecological perspective has been gaining wider acceptance in other disciplines as contextual factors outside of the individual and family are recognized as playing an important role in influencing the development and intervention of complex social problems (Ager, 2012). Since disclosure of child sexual abuse is heavily influenced by the interaction between an individual and their social environment, the ecological perspective is helpful to facilitate understanding of how children disclose sexual abuse.

Bronfenbrenner's (1979) ecological perspective organizes human experiences into several levels of interactive systems. It situates human development within a particular historical and environmental context, taking into account the multiple interactions that influence the individual and larger systems surrounding the individual. The ecological perspective diverts from a linear causal theory, where one thing will influence another in a unidirectional way. Rather, it allows for bidirectional relationships between systems, understanding that this relationship is a process and can be constantly evolving. This complex interplay influences individuals in the way they develop, think, behave and experience their lives. In turn, individuals influence the various environmental systems in how they are interpreted and interact. Thus, Bronfenbrenner's ecological model is important to social work in that it acknowledges the complexity of the ever changing and evolving relationship between an individual and the different levels of their environment.

Each system within the ecological perspective is nested within other systems or environmental contexts, with the smallest system, the individual, located within larger proximal systems. These systems are categorical and contain both formal and informal environmental systems. These concentric systems are referred to as the micro, meso, exo, and macrosystems. For a graphic representation of Bronfenbrenner's ecological perspective as applied to the current study, see Figure 2.1.

Microsystem. The microsystem is the arrangement of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics (Bronfenbrenner, 1979). This setting is any place where the individual interacts with others. Individual characteristics, behaviors, roles and relationships with others represent the core of the microsystem. The

microsystem not only includes the objective aspects of the environment such as individual characteristics or interactions between an individual and another person, but the subjective perspective of the individual. The individual interacts within the microsystem; they process these interactions and interpret their experiences at the same time. In the present study, the microsystem contains factors related to CSA disclosure such as whether the child has a supportive family, severity of abuse, the child's relationship to the abuser, threats, bribes or manipulation by the perpetrator, and the child's age and identified disability or mental health diagnosis.

Mesosystem. The mesosystem consists of the interactions between two or more settings outside of the individual or family, in which the individual is an active participant (Bronfenbrenner, 1979). The mesosystem describes the interactions between the individual (child) or family and the systems that are primarily involved in their development. These outside systems or settings may include schools, churches, social service agencies and other community organizations. In this study, the mesosystem includes the child's school or daycare center, social service organizations including child advocacy centers (CACs), and law enforcement. In the present study, the child's perception of these systems is important and may reflect previous experiences with these organizations within the mesosystem, both positive and negative.

Exosystem. The exosystem is the next level further removed from the individual, where the individual is not necessarily an active participant, but is impacted. The exosystem can include larger scale events or policies which affect the organizations within the mesosystem or individuals in the microsystem. Or, in the context of the family, can also include relationships or systems that indirectly influence the child

through the parents such as parent occupation and social relationships or socioeconomic status. Examples as it relates to CSA disclosure may include exposure to sexual abuse prevention program policies in education, mandated reporting by professionals, and media coverage of CSA or public health outreach campaigns on preventing CSA. While the exosystem is an important context of CSA disclosure, specific application of how prevention programs, mandated reporting, media coverage, or prevention campaigns influence disclosure are not included in the present study.

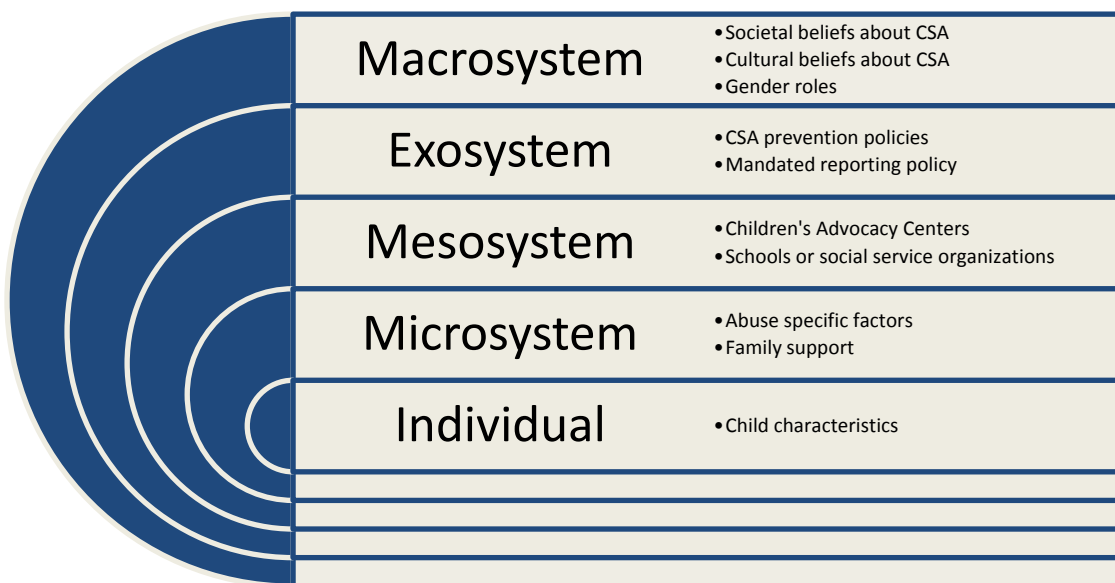


Figure 2.1. Bronfenbrenner's Ecological Perspective applied to CSA Disclosure

Macrosystem. The macrosystem is the outermost layer of Bronfenbrenner's ecological model and includes consistent themes which can be present at any of the lower levels (micro, meso, exo) that are influenced by the larger culture, including belief systems and ideology. They can also include variations in the characteristics of individuals and the meanings of these characteristics rooted in larger society such as race and ethnicity, culture, and socioeconomic status. In this study, the culture of Western

society, specifically the United States, and the beliefs about CSA may influence children who may be contemplating disclosure. Children who are living in the United States, but whose families of origin are from another country with contrasting beliefs may experience the disclosure process differently (Fontes & Plummer, 2010). In addition, ideology and beliefs about sexual abuse related to children's gender may influence a child's ability to disclose (Alaggia, 2005; Sorsoli, Kia-Keating, & Grossman, 2008).

Application of the Ecological Perspective to Understanding CSA Disclosure

A recent study by Alaggia (2010) suggests that the use of Bronfenbrenner's ecological framework is useful for the examination of disclosure of CSA. To determine what the contextual factors which promoted or acted as a barrier to disclosure of CSA, Alaggia performed 40 in-depth interviews with adult survivors of child sexual abuse. The adult participants recalled their experiences from which patterns emerged including factors which either facilitated or inhibited disclosure at the individual, family, community, and societal level. Individual characteristics included child's age and comfort with discussing the abuse. Family dynamics negatively influenced disclosure if as children, they felt that communication was closed or if there was additional violence in the home such as domestic violence or aggressive behavior from at least one parent. At the community level, participants experienced negative reactions and social isolation from neighbors if the police or child protective services were involved as it was a visible confirmation to others that abuse occurred in the family. As children, the adult participants recall being confused by societal messages about sexuality when viewing commercials or media where young females were sexualized. Other male participants

were hesitant to disclose for fear of being thought of as being gay if others found out they had been abused by adult males.

Models of CSA Disclosure

Several models related to disclosure of CSA have been proposed in the last few decades. Many of these models explore disclosure as a stage based process and attempt to integrate the known elements research has cited as being related to the disclosure, or lack of disclosure, of CSA. In the next section, an overview of each of these models will be discussed. These models include Summit's Child Sexual Abuse Accommodation Syndrome (1983) and Sorenson and Snow's (1991) Process of Disclosure model. Both models are widely known and have been cited extensively in the literature.

Child sexual abuse accommodation syndrome model. The Child Sexual Abuse Accommodation Syndrome model (Summit, 1983) proposes several stages that children experience when experiencing and disclosing abuse. The five stages include secrecy, helplessness, entrapment and accommodation, delayed or unconvincing disclosure, and retraction. Summit argues that the first three stages are universal and the last two related to disclosure may happen in only some cases. For a visual representation of Summit's model, see Figure 2.2 below.



Figure 2.2. Child Sexual Abuse Accommodation Syndrome Model by Summit, 1983.

Process of disclosure model. A more recent and widely recognized model of the process of disclosure of CSA is by Sorenson and Snow (1991). In the model, Sorenson and Snow describe a 3 step process where children may progress from denial, to tentative and then active disclosure. In the model, Sorenson and Snow also theorize that some children may go through two additional stages, recanting and reaffirmation of their initial disclosure. In this model, denial is defined as the child's initial statement to someone that he or she was not sexually abused. Tentative disclosure is defined as a child's partial or vague statement about a sexually abusive experience. Children who tentatively disclose may exhibit one or several characteristics in their statements including forgetting (I forgot), distancing themselves (It happened to my friend), minimizing (It only happened once), empowerment (He tried to touch me, but I got away), disassociation (when he does that, I think of something else), and discounting (I was kidding). Active disclosure is when the child tells someone that they were sexually abused without hesitation and with details regarding the experience. When a child

recants, they essentially deny their previous disclosure that they were sexually abused. In Sorenson and Snow's study from which the model is based, children identified several reasons to recant including pressure from a perpetrator, pressure from family, negative personal consequences, videotaping of the interview, retelling parents, concern related to the court and legal case, concerns related to law enforcement or child protection investigations. Finally, reaffirmation occurs when a child retracts their recanting statement by telling someone that they were abused, thus in agreement with their initial disclosure, either tentative or active. The research on which this model is based showed that children who were sexually abused admitted to denying the abuse initially (72%), providing a tentative (78%) and/or active disclosure (96%). Some recanted their initial disclosure (22%), but most children reaffirmed their initial disclosure statement (93%) (Sorenson & Snow, 1991). This model of disclosure illustrates that children experience disclosure as a process and not a one-time event.

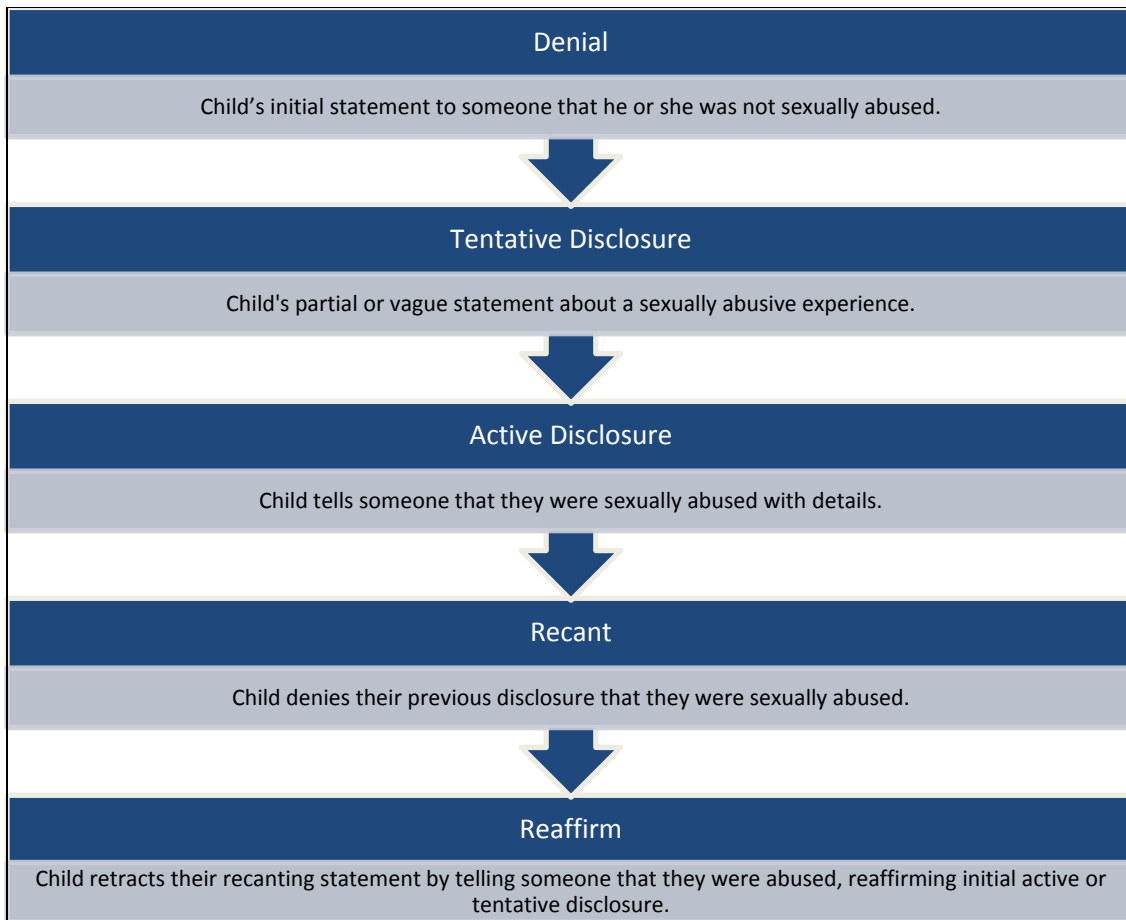


Figure 2.3. Process of Disclosure Model, first conceptualized by Sorenson and Snow, 1991.

Application and criticism of stage based disclosure models in research. Each of these models have faced criticism. For example, both Summit and Sorenson and Snow's stage based models were based on disclosure in clinical settings and have not been widely validated through other research. One study by Bradley and Wood (1996) tested Sorenson and Snow's model in the context of official investigatory interviews. They found that only a small percentage of children recanted their initial disclosure statements, which contradicts the models proposed by both Summit and Sorenson and Snow. Furthermore, within the sample of 249 cases, tentative or reluctant disclosures

occurred 24% of the time, contrasting sharply with Sorenson and Snow's tentative disclosure rate of 78%. However, this finding could be due to the difference in context where each study's findings were evaluated. Only one other study incorporated Sorenson and Snow's definitions of stage based disclosure into research on CSA disclosure within the context of forensic interviews. Authors Springman, Wherry, and Notaro (2006) examined 220 cases of children who were interviewed about allegations of CSA. Using Sorenson and Snow's definition of tentative disclosure, where the child suggests that abuse occurred, but fails to provide enough detail to classify the type of sexual abuse that occurred (i.e., "Something happened, but I don't want to talk about it" or "Someone at the bus stop hurt me" but does not provide additional details), the study sought to determine whether children went through similar stages of disclosure as described in the original study. However, they found that in their sample, only 9% of children disclosed tentatively. Again, a sharp contrast to Sorenson and Snow's original study where they describe much higher percentages of tentative disclosure. However, other than these two studies, recent research has focused on factors which contribute to lack of disclosure, or a delay in disclosure, but does not focus on the process of disclosure. Adaptations of these models incorporating findings with recent research are clearly needed.

Social exchange theory and CSA disclosure. Leonard (1996) offered an adaptation to the process model of disclosure by Summit (1983) by applying social exchange theory to the model. Social exchange theory is based upon the idea that individuals weight costs and rewards in every social relationship and exchange and will pursue relationships and exchanges which offer rewards and may avoid relationships or exchanges which they perceive to be costly. In the application to Summit's model,

Leonard surmised that children who experience sexual abuse weigh the costs to disclosure and may find the cost of disclosing too high, especially if the abuse is perpetrated by a family member. Disclosing the abuse could mean that the child, family, or perpetrator could experience negative consequences such as breaking up the family. Furthermore, since social exchange between family members is often unequal, and is certainly unequal in the context of a social relationship between a child and the abuser, the child is automatically at a disadvantage with limited options (Leonard, 1996). In the present study, Leonard's application of social exchange theory is especially useful in understanding how disclosure is influenced by family support, relationship to the perpetrator, and whether the child experienced threats, bribes or manipulation. For a visual representation of social exchange theory as applied to CSA disclosure, see Figure 2.4.

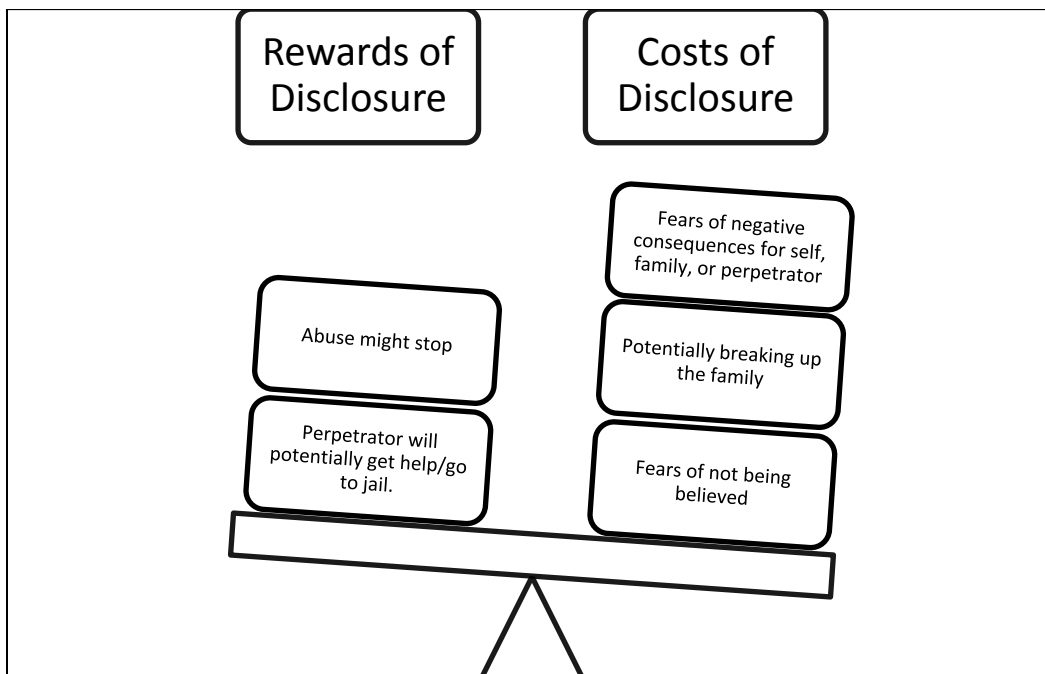


Figure 2.4. Social Exchange Theory applied to CSA disclosure, as conceptualized by Leonard, 1996.

Summary of Theoretical Frameworks

A combination of Bronfenbrenner's (1979) ecological perspective, Sorenson and Snow's (1991) Process of Disclosure model, and Leonard's (1996) application of social exchange theory to CSA disclosure will be used in the current study to comprehend how children disclose CSA. Bronfenbrenner's ecological framework is helpful in the overall understanding of the complex contextual factors which may influence disclosure of CSA. In the current study, these factors include children's demographics and abuse related factors such as severity of abuse, along with the level of family support. Sorenson and Snow's Process of Disclosure model is helpful in understanding and describing how children actually disclose sexual abuse. While the model is based on disclosure in clinical contexts, definitions of active and tentative disclosure will be applied to disclosure during forensic interviews. Finally, social exchange theory as applied to models of CSA disclosure is helpful in understanding the child's reasoning process as they weigh the anticipated costs and rewards for disclosing sexual abuse, particularly as applied to disclosure and family support, relationship to the perpetrator, and whether the child experienced perpetrator threats, bribes, or manipulation.

Original Guiding Conceptual Framework

The guiding conceptual framework used in this study is a combination of the three main theoretical frameworks presented in this chapter: Bronfenbrenner's (1979) Ecological Perspective, Sorenson and Snow's (1991) Process of Disclosure Model, and Leonard's (1996) application of Social Exchange Theory to CSA Disclosure. The integrated conceptual framework incorporates several of the main components from each of the three main frameworks to illustrate the main factors examined within the present

study. For example, Bronfenbrenner's Ecological Framework contributed the idea that cultural beliefs about CSA is influenced both by the child's race/ethnicity, which influences disclosure, and also decisions about services provided to the family. As previously discussed earlier in the chapter, it also contributes the idea that factors are operating on different levels within systems, and each of these can influence each other as well as the outcome variables. System levels for each of the factors used in this study include individual (child characteristics), micro (abuse specific factors and family support), and macro (cultural beliefs about CSA). Next, the outcome of tentative disclosure from Sorenson and Snow's (1991) process of disclosure model was used as one of the outcomes in this study. Although not specifically examined here, it not only serves as one of the outcome variables, it also may be acting as a mediating variable for service and family living situation outcomes. Finally, elements of Leonard's (1996) application of Social Exchange Theory to CSA Disclosure were also used within the conceptual framework used in this study. These elements include factors which children may be considering when they decide how much to disclose within the forensic interview. These elements include factors related to their family and relationship to the alleged perpetrator. As previously discussed, if a child is concerned about their family's reaction or experienced a lack of support upon initial disclosure, they may be more likely to tentatively disclose during the forensic interview. They may also be concerned about consequences for the alleged perpetrator and may also be more likely to tentatively disclose if they were abused by an adult or relative.

As illustrated in *Figure 2.5*, the conceptual framework used in this study is complicated due to the number of factors involved. In the framework, factors are

grouped and organized by category. Child characteristics include the child's age, gender, mental health or disability diagnosis, and race/ethnicity. Abuse specific factors include the CSA allegation, perpetrator threats, relationship of the alleged perpetrator to the child, and initial disclosure. Each of these factors was hypothesized to be related to the type of disclosure during the forensic interview. Some of these factors were also hypothesized to be related to services and family living situation outcome variables. Level of family support was both related to each of the three outcome variables as well as child characteristics and abuse specific factors, including relationship of the alleged perpetrator to the child. While specific relationships between the level of family support and factors related to the child and abuse were not explored explicitly in this study, it is possible that family support is a potential moderating variable within the overall framework. Finally, the outcomes in child protection cases including services to the child and family and family living situation outcomes are related to all of the factors included in the framework: child characteristics, abuse specific factors, level of family support, the outcome of disclosure type within the forensic interview, and an additional category of cultural beliefs about CSA within the macrosystem of Bronfenbrenner's Ecological Perspective. A visual representation of the overall conceptual framework, can be found in *Figure 2.5*. In the next chapter, a review of the body of literature related to CSA disclosure is presented.



Figure 2.5. Graphic representation of Original Conceptual Framework, Incorporating Theoretical Frameworks

Chapter Three: Review of the Literature

The literature on the topic of disclosure of child sexual abuse is abundant. In the last few decades, many studies have examined the factors related to disclosure of CSA. In particular, most research has focused upon the factors related to initial disclosure, especially non-disclosure or delayed disclosure. Research on initial CSA disclosure began in the late 1970s and early 1980s, mostly within the field of Psychology, following skyrocketing numbers of CSA reports after the passage of CAPTA and mandated reporting in 1974 (see Chapter 1 for the history of disclosure and mandated reporting). Most of the early research relied on samples of adults who retroactively recalled experiences of sexual abuse and reasons for disclosing, or not, during childhood. In the 1990s and early 2000s, research on CSA disclosure expanded into other disciplines, including social work, and also expanded to examine the individual characteristics of adolescents and children, as well as abuse specific scenarios, and the barriers to disclosure. Some of these studies have examined factors related to CSA disclosure within the context of formal investigative interviews and forensic interviews, but these studies are fewer in number and the same factors linked with initial disclosure have not been as firmly established. In addition, some research has been conducted on the outcomes for children and adolescents who disclose sexual abuse in the context of formal investigations or forensic interviews, although most of the outcomes examine criminal prosecution rates. Almost no research has examined outcomes in child protection cases, both service outcomes and family living situation outcomes. Also missing from the literature is a thorough examination of the role of family support in the disclosure process and in child protection outcomes.

The purpose of this chapter is to provide an overview of the existing literature as related to the overall process of CSA disclosure, from the first initial disclosure to the outcomes after an investigation. It is important to review the literature from the full continuum of disclosure, initial disclosure, disclosure during forensic interviews, and outcomes after the forensic interview, as each of these elements influences how the child will disclose within the forensic interview. Furthermore, the research on disclosure during forensic interviews has been heavily influenced on the body of research on initial disclosure and the conceptual framework developed for this study was also informed by the body of research on the overall process of CSA disclosure, from initial disclosure to the outcomes after disclosure. Therefore, this section will be divided into three main sections as related to CSA disclosure: what we know about initial disclosure, disclosure during forensic interviews, and outcomes after disclosure during forensic interviews. First, an overview of literature pertaining to the factors related to initial disclosure will be presented. Next, an overview of research related to disclosure during forensic interviews will be examined. Finally, the small body of research that exists on outcomes related to child protection services will be discussed. This chapter will conclude with a critique of the literature, including a discussion of the substantial gaps within the literature.

Factors Related to Initial Delayed or Non-Disclosure

Research on factors related to initial disclosure typically falls into two categories: those that do not disclose at all and examining the factors related to delayed disclosure. Interest in the topic of initial CSA disclosure began after the dramatic increase in reported CSA allegations in the 1980s, although along with this increase came a realization that many children were still not actually reporting sexual abuse. Therefore, studies on initial

disclosure sought to understand why some children were disclosing more (or not disclosing), what other factors were related to initial disclosure, and understanding the recipients of a child's disclosure. At first, most of the studies on non-disclosure were conducted with adults retrospectively recalling reasons why they didn't disclose the abuse. Since that time, some research on non-disclosure has expanded to include anonymous surveys with children and adolescents. These studies have mostly examined child characteristics only, although studies have more recently expanded to include abuse specific factors such as abuse allegation or relationship to the perpetrator in addition to examining child characteristics. Research on delayed disclosure has been conducted with children, adolescents and adults. This body of research is a mix of quantitative and qualitative studies. These studies have mostly examined the barriers to disclosing as well as identifying persons that children are most likely to tell initially.

In the following section, a review of research on the factors related to initial delayed or non-disclosure disclosure is presented. Factors that have most extensively been studied include child characteristics and factors related to the abuse allegation. While the research on initial CSA disclosure is quite large, one major gap in the literature is the lack of research examining family support and initial disclosure.

Child characteristics. As previously discussed (see Chapter 1), since disclosure of child sexual abuse does not often happen whenever abuse occurs, researchers have sought to uncover linkages between initial disclosure and characteristics of children. This research is generally trying to understand whether certain children are more likely to disclose sexual abuse as compared to other children. This research focuses exclusively on disclosing sexual abuse for the first time and is different from the body of research

examining disclosure of CSA during investigations, as will be discussed in subsequent sections of this chapter. Within the literature on initial CSA disclosure, most studies have focused on comparing children of different ages and genders. As discussed below, one major gap in the literature are studies examining a child's race/ethnicity, culture, and initial disclosure. In this section, a review of studies linking each characteristic to the likelihood of children's disclosure, or lack of disclosure, of sexual abuse is presented.

Age. Many studies indicate that as children and youth increase in age, the likelihood of disclosing abuse right away decreases (Kellogg & Huston, 1995; Kogan, 2004; Ullman, 2003; Ungar, Tutty, McConnell, Barter & Fairholm, 2009b). Kogan (2004) found that among 263 adolescent females who had experienced sexual abuse during adolescence, length of time to disclose increased as participants increased in age. In addition, children and adolescents are less likely to disclose sexual abuse to family members as they get older. In a survey of 300 adolescents, ages 12 to 17, Kellogg and Huston (1995) discovered that while most adolescents in their sample had told someone about the unwanted sexual contact, only a third of the adolescents had first told a parent or caregiver about being sexually abused. Other studies have concurred, finding that older children were more likely to avoid sharing their experiences with their parents and were more likely to disclose to friends or siblings, whereas younger children disclosed more often to their parents (Ullman, 2003). Therefore, while it appears that most research has found that older children are less likely to disclose sexual abuse immediately, it should be noted that most research has been conducted with adolescents and not with young children.

Gender. Research examining initial CSA disclosure and gender is mixed, although some research has found that females are more likely to disclose sexual abuse than males. Lamb and Edgar-Smith (1994) found that among adults who had histories of being sexually abused, males were much less likely to have reported the abuse than females during childhood. However, it should be noted that this study is based upon a sample of adult participants recalling their experiences during childhood. Priebe and Svedin (2008) identified male adolescents as providing fewer details regarding sexual abuse experiences on anonymous questionnaires. In this study, male participants also reported they disclosed the abuse less often than the female respondents. However, other research has not found gender to be a significant factor in determining when, or if, a child will disclose sexual abuse (Finkelhor, 1990).

Some research suggests that boys may experience less support to disclose due to societal norms. When interviewed, sixteen adult male survivors of sexual abuse cited reasons to not disclose included shame, isolation, and a larger societal lack of acceptance for males who may have been victimized (Sorsoli, et al., 2008). In interviews with 30 male survivors of CSA, Alaggia (2005) found that the males were most concerned with being labeled as a homosexual or as a victim if they disclosed the abuse. Thus, while some research continues to support the idea that females disclose more often and more readily than males, there continues to be some debate as to whether this is consistently found in other research.

Race/ethnicity and culture. The literature on disclosure of child sexual abuse as related to race/ethnicity and culture is limited. Some research has suggested that there are differences between children from various racial/ethnic backgrounds in the types of

abuse they experience and whether they disclose (Shaw, Lewis, Loeb, Rosado, & Rodriguez, 2001; Tang, 2002). A study comparing Hispanic and African American adolescent females by Shaw, et al. (2001) found that Hispanic females were more likely to experience sexual abuse more often, by fathers or step-fathers, and delayed disclosure as compared to African American females. However, it should be noted that this study used a non-random sample from a population of children and adolescents receiving clinical therapy and therefore the results can't be generalized across the population.

Other research has focused on how culture impacts disclosure. In a review of research and reflection on clinical practice with children who have been sexually abused, Fontes and Plummer (2010) argue that differences in cultural values may greatly impact disclosure of sexual abuse. These values include shame, views on virginity, religion, women's status within society, honor and respect. The authors assert that many children and families may attempt to keep the abuse hidden from the authorities based on negative experiences in the past, known as 'reporting costs'. Tang (2002) found that Chinese college students were more reluctant to disclose sexual abuse than college students in Western societies. Due to the limited scope of literature and lack of rigorous studies on race/ethnicity, culture and disclosure of CSA, the evidence on this topic is too scarce to understand if, or how, a child's race/ethnicity and culture influences initial CSA disclosure (London, Bruck, Ceci & Shuman, 2005).

Disability and mental health diagnoses. Previous research has established that children with disabilities and mental health diagnoses may be more likely to delay initial disclosure of sexual abuse (Broman-Fulks, et al., 2007; Priebe & Svedin, 2008; Sullivan & Knutson, 2000; Turner, Vanderminden, Finkelhor, Hamby & Shattuck, 2011). A study

of over 4,000 adolescents by Priebe and Svedin (2008) revealed that youth were more likely to delay disclosure if they had a mental health diagnosis such as anxiety or depression. Similarly, in a study of more than 4,000 adolescents, Broman-Fulks, et al., (2007) found that the youth participants were more likely to have a mental health diagnosis of PTSD or depression if they delayed disclosure by more than a month. Interestingly, the youth in this study were five times less likely to have a diagnosis of PTSD if they disclosed to their mothers, indicating that perhaps disclosure to a non-offending parent may provide a significant protective factor. This also indicates that there may have been a secure attachment before the abuse occurred; secure attachments are associated with dealing well with stress and thus with less chance of depression.

Research on children with disabilities and sexual abuse shows that children with disabilities are more likely to experience sexual abuse and to not disclose the abuse. In a large population based study of school aged children with disabilities and maltreatment, Sullivan and Knutson (2000) identified that children with learning disabilities, mental retardation, and behavioral disabilities were both more likely to experience sexual abuse and to disclose the abuse less often than children without disabilities. This study made an important contribution to the body of literature on CSA disclosure because it not only examined rates of abuse and disclosure by disability diagnosis (and not just by whether the child had a disability diagnosis or not), but it did so on a large scale with results that could be generalized outside of the study. This research builds upon the work of researchers who have studied children with disabilities and sexual abuse. In a study where questionnaires were administered to organizations caring for abused children, Sobsey and Mansell (1994) found that the risk for sexual abuse was double if the child

had a disability. In a population based study, Kvam (2000) observed that children with severe disabilities were not disclosing sexual abuse because these children are less likely to verbalize the abuse and more likely to display behavioral symptoms such as sleeping issues, crying, and nightmares.

Abuse specific factors related to initial disclosure. Children's individual characteristics are important factors to consider when examining disclosure of sexual abuse. However, they do not offer a complete explanation as to why some children initially disclose sexual abuse and why others delay disclosure, or do not disclose at all. Factors related to the abuse itself play an important role in acting as barriers to initial disclosure. These include severity and duration of the abuse, relationship to the perpetrator, experiencing perpetrator threats, bribes and manipulation, and feeling responsible for the abuse. Below, a review of the literature as related to initial disclosure and abuse specific factors is presented.

Severity of abuse. Research is mixed in documenting the relationship between the severity of abuse, in terms of the abuse allegation and duration of abuse, and initial disclosure. In a study with over 200 women who retrospectively recalled their experiences of sexual abuse in childhood, Arata (1998) found that disclosure was less common with more severe levels of abuse, such as penetration, especially when the perpetrator was related and the abuse continued for a long period of time. In a small study with participants receiving clinical treatment, Shaw et al. (2001) found that Hispanic females experienced more incidents of abuse and were more likely to delay initial disclosure. However, as previously mentioned, African American females in the same study were more likely to experience more severe abuse (vaginal penetration), but

were also more likely to disclose faster than the Hispanic females. In contrast, Lamb and Edgar-Smith (1994) did not find that the duration or severity of the abuse allegation was related to delayed disclosure. This was, however, a small study of 60 adult participants who were interviewed about their experiences of sexual abuse in childhood. However, larger, more representative studies have also failed to find a significant relationship between severity of abuse and delayed or non-disclosure. In a large study with a nationally representative sample, Smith et al., (2000) found that severity of abuse was not related to delayed disclosure. A review of several studies related to child sexual abuse disclosure by London et al. (2005) further questioned the commonly cited claim that research has established a relationship between initial disclosure and severity of abuse. Rather, they suggest that research has shown the opposite, that more severe abuse may actually prompt disclosure. However, in another review, Ullman (2003) concluded that recent research did suggest a tendency towards delayed initial disclosure if the child or adolescent endured more severe abuse for a longer period of time. With the debate in the literature, it is difficult to determine whether the severity of the abuse, as well as the duration, is likely to impact initial disclosure.

Relationship to perpetrator. Researchers have also explored how the relationship to the perpetrator affects child and adolescent decisions to make an initial disclosure. All studies exploring relationships have found that having a closer relationship with the perpetrator results in delayed or non-disclosure (Arata, 1998; Kogan, 2004; Priebe & Svedin, 2008). This has been established in large representative samples such as Priebe and Svedin's (2008) study where they surveyed over 4,000 adolescents. In the study, they found that girls were less likely to disclose if the abuse was perpetrated by a relative.

This was also found in a large national study where Smith et al. (2000) surveyed women about their experiences with sexual abuse in childhood and found that the women were more likely to delay disclose if they were related to the perpetrator. Similar findings exist in smaller studies with convenience samples. Staller and Nelson-Gardell (2005) reported that most of the 30 female adolescent participants in their study felt guilt, confusion, and conflict regarding their personal relationships with the abusers and this prevented them from disclosing the abuse immediately. Kogan (2004) found the relationship to the perpetrator to be predictive of deciding to delay disclosing abuse, with adolescent females delaying disclosure significantly longer if the perpetrator was a relative. Similarly, Schaeffer, Leventhall, and Gottsegen Asnes (2011) ascertained that when children considered the perpetrator a friend, they were more likely to delay initial disclosure. It should be noted that the 191 children who participated in the study were also participating in an investigation of sexual abuse allegations and information about initial disclosure was obtained during the forensic interview. In summary, not surprisingly, studies overwhelmingly indicated that if the child was related to the alleged perpetrator, or had a close relationship with the perpetrator, they were more likely to delay initial disclosure or to not disclose at all. Of the research that examined this specific factor as related to CSA disclosure, none of the studies had findings to the contrary indicating that having an established relationship as a relative or 'friend' with the perpetrator is a very powerful barrier to initial disclosure.

Perpetrator threats, bribes and manipulation. Research on initial disclosure of CSA and perpetrator, bribes and manipulation suggests that children are more likely to delay disclosure if they experience one or more of these behaviors (Palmer, Brown, Rae-

Grant, & Loughlin, 1999; Schaeffer et al., 2011). In a retrospective study, perpetrator threats were associated with non-disclosure among adult survivors (Palmer, et al., 1999). These threats included physical and verbal aggression, and perpetrators commonly used threats to kill the child or the child's family members to keep the child from telling anyone about the abuse. Similarly, Schaeffer et al. (2011), found that children often delayed initial disclosure due to fears that the perpetrators would act on threats they had made to keep the children quiet. However, in a larger national study by Smith et al. (2000), findings did not indicate a significant relationship between the use of threats or force during the abuse and non-disclosure. However, as noted by the authors, the women who did not disclose during childhood were also less likely to experience threats or force.

Other research has found that while threats and aggressive behavior by perpetrators is effective in keeping some children quiet, it is sometimes less effective than using manipulation, or grooming, especially when the child knows the perpetrator (Sauzier, 1989). Grooming can include manipulation, bribes, and isolation of the child from other family and peers (Campbell, 2009; Elliott, Browne, & Kilcoyne, 1995; Lawson, 2003). If unrelated to the child, the perpetrator uses grooming tactics to purposefully gain the trust of the child's family in order to access, isolate, and abuse the child (Elliott, et al., 1995). In cases of interfamilial abuse, children and non-offending family members usually already trust the abuser, thus making the task of grooming and isolation less arduous for the perpetrator.

Factors related to family support and consequences. Some research has focused on factors related to family support, or lack of family support and initial disclosure. In most of the research on initial disclosure of CSA, the findings indicate that

when children anticipate being rejected by family members, they are more likely to delay disclosure or not disclose at all. They are also concerned about negative consequences for their family and the perpetrators, especially if the perpetrator is a family member. This is especially true for adolescents, as they may be more aware of the ramifications of an initial disclosure. Below, a summary of the research for each of these factors is presented.

Anticipation of family reaction and level of support. Some studies have found that children are less likely to disclose abuse to their parents if they believe they will be rejected or face disbelief (Cromer & Goldsmith, 2010; Gilgun, 2010; Kellogg & Huston, 1995; Somer & Szwarcberg, 2001). In a study of thirty children and parents participating in a forensic interview, Hershkowitz, Lanes, and Lamb (2007) identified over half of the children in their study as feeling afraid or shamed by their parents' responses to their initial disclosure. Eighty six percent of these children had been abused on multiple occasions and delayed their initial disclosure. From focus groups with more than 30 adolescent girls, Staller and Nelson-Gardell (2005) discovered that many girls delayed disclosure until they had more evidence or other professionals who could corroborate their stories when disclosing to parents and family members. Ungar, et al. (2009b) interviewed 27 youth and found that they most often delayed disclosure for reasons such as loyalty to family, the fear of not being heard and believed, and knowledge of negative experiences of child protection investigations. Alaggia and Kirshenbaum (2005) found that children were less likely to disclose if their families had rigid gender roles or who had closed communication patterns for fear of disbelief or violence. It should be noted that each of these studies consisted of small, convenience samples.

Unfortunately, some children's fears regarding disbelief and lack of support are realized. Kellogg and Huston (1995) found that when adolescents disclosed sexual abuse to an adult family member, only half of the adults did anything to stop the abuse. In a sample of 41 adult survivors of sexual abuse, Somer and Szwarcberg (2001) found that most participants received a negative reaction from parents after disclosure. Because most research on disclosure is not done in a systematic or nationally representative way, the literature does not address whether parent reactions have changed over time or how representative these reactions are to the experience of most children disclosing CSA.

Even though many children fear their families' reaction will be negative, research has shown that many children will disclose more readily if they anticipate a supportive response from family members (Jensen, Gulbrandsen, Mossige, Reichelt, & Tjersland, 2005; Priebe & Svedin, 2008; Schönbucher, Maier, Mohler-Kuo, Schnyder, & Landolt, 2012). In a large study with over 4,000 adolescents, Priebe and Svedin (2008) found that youth were more likely to disclose sexual abuse if they perceived their parents to be caring and supportive, and not overly protective. From interviews with children and parents of children who had disclosed sexual abuse, children reported that thinking they would be believed was a 'pre-requisite' when deciding whether to disclose (Jensen et al., 2005). Similarly, in a qualitative study with 26 adolescents who had been sexually abused, Schönbucher, et al. (2012) found that disclosure to an adult family member was dependent on whether children described their family environment as stable and the relationship with parents as reliable.

The disclosure process: Multiple disclosures and 'testing the waters'.

Research shows that children and adolescents may choose several people to disclose to,

starting with someone whom they perceive will be the most supportive emotionally, although that person may not be able to stop the abuse. For adolescents especially, this type of disclosure usually begins with peers. Through a series of focus groups and questionnaires, Ungar, Barter, McConnell, Tutty and Fairholm (2009a) identified that adolescents will commonly seek to disclose abuse to several persons and will continue in the disclosure process if they have received supportive responses. Adolescents in the study reported telling a peer first even though the peer was unlikely to be able to do anything beyond offering support. After the initial disclosure, the adolescents typically talked with a trusted adult, either a parent, other related family member, or teacher. Since they had already received a positive and supportive response from their initial disclosure to a peer, they were more confident that they would receive both a supportive response as well as assistance in helping stop the abuse or getting help for themselves. The authors found that some of the youth would continue in the disclosure process and would disclose to professionals or those who would be required to report the abuse. Youth typically would do this only if they were confident that the formal system would be effective in helping them. The process of disclosure the authors describe is clearly a complicated and drawn out endeavor, in which adolescents weigh several factors before deciding to tell anyone. Then, even after the initial disclosure, the youth may tell several people before it reaches the formal system where children may receive help or the perpetrator is identified by law enforcement.

The disclosure process indicates that children and adolescents ‘test the waters’ before making a disclosure to someone who may be able to provide a fully supportive response. According to Everson, Hunter, Runyon, Edelson, and Coulter (1989), a fully

supportive response requires three elements: believing the child, providing emotional support, and taking action to protect the child from the perpetrator, such as removing the perpetrator from the home or from accessing the child. The authors found that most of the non-offending mothers whose children disclosed sexual abuse to them offered emotional support and told the children they believed them. However, less than half of the mothers took action to protect the children from the perpetrator. This research highlights reasons why children and adolescents may hesitate to disclose abuse to parents or professionals first; they want to make sure they will receive a fully supportive response. Disclosing to peers who are usually only able to provide emotional support and belief is less risky than disclosing to adults who may be able to provide a fully supportive response, but do not.

Behavioral, witnessed and accidental disclosure. Most of the research on initial disclosure has examined it from the assumption that a disclosure is made intentionally and verbally. However, abuse can also be discovered through behavior, through a witness, or by accident. In a study of 737 sexually abused children in South Africa, Collings, Griffiths, and Kumalo (2005) identified 30% of children in the sample as making a purposeful direct disclosure, 9% disclosed indirectly by making a vague statement, 18% of cases were discovered by a witness, and 43% of cases were disclosed accidentally. In a study with 24 adult sexual abuse survivors, Alaggia (2004) found that only 6 of the participants had made purposeful disclosures in childhood. In this study, 15 participants described using non-verbal behaviors to indirectly alert adults that something was wrong. Such behaviors in young children included clinging to trusted adults, and tantrums. In adolescents, flares of anger, substance abuse, eating disorders, withdrawal,

suicide attempts, and avoidance were the most common indirect behaviors mentioned by participants. This does not take into account other unattended traumas and opportunities to work out the trauma adolescents experienced. Many participants wished that adults had understood that the behaviors were hinting at what had happened to them. However, as Alaggia (2004) points out, many of these indirect behaviors are already behaviors in childhood and adolescence, so it is very difficult for adults to connect the behaviors with sexual abuse and it would not be wise for adults to come to such a conclusion without other indicators. Similarly, Ungar, et al. (2009a) found that adolescents displayed indirect and direct patterns of disclosure. From 1621 written disclosure forms and 27 interviews and focus groups, the authors found that adolescents used indirect ways to cope with abuse by engaging in risky behaviors and by not talking; others directly disclosed to parents, peers and professionals. The researchers concluded using the indirect ways of coping were the adolescents' ways of testing out a possible future disclosure.

Summary of research on initial disclosure of CSA. In summary, there is an abundance of literature on factors associated with initial disclosure. Most of the research has examined the factors related to delayed or non-disclosure. Most research has been related to children's demographic characteristics including a child's age, their gender, race/ethnicity and culture, mental health or disability diagnosis. Abuse specific factors include the severity of abuse, relationship to the perpetrator, and the presence of perpetrator threats, bribes and manipulation. Finally, concern for their family reactions and negative consequences have also been established as factors in reasons for delaying or not disclosing CSA. One overarching issue in this body of research is that many have

used retrospective surveys, asking adults to recall why they didn't disclose or delayed their initial disclosure. Some studies used random samples with large surveys, but many use in-depth interviews or small convenience samples within a population receiving clinical therapy. Therefore, results from these studies can't be generalized to the larger population. Unfortunately, as demonstrated in the next section, the abundance of focus on CSA disclosure has not yet translated to examining the same factors associated with how children disclose CSA within forensic interviews.

Disclosure During Formal Investigations and Forensic Interviews

The body of literature on disclosure of CSA within the context of formal investigations and forensic interviews is not as robust as the literature on initial disclosure. Disclosing within the context of a forensic interview is a very different experience than initial disclosure. There are several reasons for this difference. First, the abuse has already been initially disclosed, either intentionally verbally disclosed by the child, or reported by someone else regarding suspected abuse. Second, the child is discussing details of abuse with a professional, often someone the child has never met. Third, the ramifications for disclosing within a forensic interview are potentially more serious as a case has been opened and professionals, including child protection, law enforcement, and prosecuting attorneys, are present listening to the narrative. All of these factors make disclosure within the context of a forensic interview, or formal investigation, a very different experience for the child. Therefore, it is appropriate to separately review the studies on initial disclosure and disclosure within forensic interviews.

Research on disclosure within forensic interviews is relatively recent, with a small handful of studies occurring in the 1990s. Most studies, however, have been published in the last 15 years as increasing interest in the topic of disclosure within forensic interviews has been generated. This shift has occurred along with a general increase in the number of studies on establishing evidence based forensic interviewing techniques and protocols. In general, there are a number of major differences within the body of literature on disclosure within forensic interviews as compared to the literature on initial disclosure. As briefly touched upon, one difference is that the number studies that exist on disclosure within forensic interviews is considerably smaller as compared to the number of studies done on initial disclosure. Another difference is regarding the type of studies conducted in terms of sample size and representativeness; most studies on disclosure during forensic interviews are relatively small and are not based on a nationally representative sample. Some utilize random sampling, although most use convenience samples. Finally, the sample is limited to a very specific population: children and adolescents who have had a report of CSA made and who are participating in a forensic interview. Unlike studies on initial disclosure, the participants within the research on disclosure within forensic interviews are almost exclusively children and adolescents. The participants are not anonymous in their responses, nor are they adults retrospectively recalling their experiences.

This next section will focus on factors related to disclosure during forensic interviews or formal investigations. This section is organized similarly to the previous section on initial disclosure. First, is a discussion on research related to the child's demographic characteristics and disclosure during forensic interviews. Next, studies that

have examined abuse specific factors and how those influence disclosure during forensic interviews are outlined. Then an examination of family support and its influence on disclosure during forensic interviews and formal investigations is presented. Overall, there is a significantly smaller body of research dedicated to examining disclosure during forensic interviews, especially in relation to certain factors which, as will be discussed in greater detail, is a critical gap within the literature.

Child characteristics. Like research on initial disclosure, child's characteristics and disclosure have been examined in the context of forensic interviews and formal investigations, although not nearly as many studies have been conducted. Most research has focused on the child's age and gender, with less attention paid to the child's mental health or disability diagnosis and disclosure. Virtually no research has been conducted on a child's race/ethnicity and culture and disclosure in the context of forensic interviews. The following section provides a review of relevant research in each of these areas.

Age. Research has found that age is a significant factor in the disclosure of sexual abuse in the context of forensic interviews or formal investigations with older children being less likely to fully disclose immediately as compared to younger children (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; Hershkowitz, et al., 2007). In a study of 218 children who had reported sexual abuse, Goodman-Brown, et al. (2003) established that older children and youth were less likely to disclose abuse right away in the context of formal investigations. Similarly, through interviews with children under the age of 12, Hershkowitz et al. (2007) identified older children (ages 9 to 12) as being more likely to delay disclosure during investigations as compared to younger children (ages 7 to 9). However, it should be noted that this study was only conducted

with 30 children who had been allegedly sexually abused by non-family members. In both studies, the authors attributed the older children's reluctance to disclose as being more aware of the potential consequences of a disclosure in the context of a formal investigation. This is consistent with research on initial disclosure as discussed in the previous section, with older children being less likely to disclose right away due to concerns about negative consequences on initial disclosure.

Gender. Research on the role of gender and disclosure of CSA during forensic interviews is limited. DeVoe and Faller (1999) found that among 76 children who were being formally interviewed regarding sexual abuse allegations, boys were less likely to disclose abuse than girls. Similarly, Gries, Goh, and Cavanaugh (1996) established, in a study of 96 children thought to have been sexually abused, that females were significantly more likely to disclose than males during formal assessments. However, in a study with 218 children and adolescents, Goodman-Brown, et al. (2003) found that gender was unrelated to sexual abuse disclosure during formal investigations. As was the case in the body of literature on initial disclosure, gender seems to be a variable that is debated as to whether it really consistently predicts disclosure of sexual abuse.

Race/ethnicity and culture. The influence of a child's race/ethnicity and culture has been virtually ignored in research on disclosure of sexual abuse within forensic interviews. Only a few studies could be located that even discussed a child's race/ethnicity or culture in the context of a sexual abuse disclosure during forensic interviews. In Bradley and Wood's (1996) study with 249 children, with most participants identifying as Hispanic, the authors surmised that cultural and religious factors may have influenced their disclosures during the investigations, although that was

not the primary focus of their study and they did not do a specific analysis or comparison to another racial group. In a sample of 220 cases where children participated in forensic interviews, Springman, et al. (2006) did examine the interaction between the interviewer's race and the child's race and how this interaction might influence the child's disclosure. They hypothesized that children of similar racial backgrounds to that of the interviewer would be more likely to disclose actively and fully as compared to children who were matched with an interviewer of another racial background. However, they found just the opposite; African American children matched with a Caucasian interviewer were more likely to actively disclose. African American children interviewed by an African American interviewer were more likely to offer a tentative disclosure. However, overall, Caucasian children were more than twice as likely to tentatively disclose as compared to the African American children. As was the case with the research on race/ethnicity and culture and initial disclosure, there is very limited research performed on CSA disclosure in the context of forensic interviews. This is a serious gap within the literature that needs to be addressed.

Mental health diagnosis and disability. Research on a child's mental health diagnosis and disability diagnosis and disclosure within forensic interviews is also limited, although a few studies have examined this relationship. Overall, Hershkowitz, Lamb and Horowitz (2007) found that children with disabilities were much more likely to experience more severe sexual abuse than peers without disabilities. The children with disabilities in this study were also found to have significantly more instances of delayed disclosure. The authors surmised that children may experience abuse at higher rates as compared to those without disabilities as they may be more vulnerable to abuse and may

have more difficulty communicating and disclosing the sexual abuse. It is important to note that these children also were significantly more likely to experience abuse by a related adult, both factors that could influence disclosure as outlined in the previous sections on initial disclosure. Gries, et al., (1996) evaluated children's ability to disclose during forensic interviews and found no difference between children who had a mental health diagnosis or disability and disclosure during the forensic interview. Beyond these two studies, no other research has specifically examined this relationship. Therefore, it is clear that more research is needed to examine whether a child's mental health or disability diagnosis does influence disclosure during forensic interviews.

Abuse specific factors and disclosure during forensic interviews. Abuse specific factors and disclosure have been sporadically studied in the context of forensic interviews. This is somewhat surprising given that this information is readily available in case file data and would also be discussed during the forensic interview, if the child discloses. However, as outlined below, most research focuses on the relationship of the perpetrator to the child. Sexual abuse allegation and severity of abuse, as well as perpetrator threats, bribes, or manipulation and disclosure have been examined much less often.

Sexual abuse allegation and severity of abuse. Most research did not examine the relationship between the sexual abuse allegation or severity of abuse and disclosure within forensic interviews. If discussed at all, most studies just mentioned abuse allegations descriptively. This was the case in DeVoe and Faller's (1999) study, where they present penetration as being the most often disclosed form of abuse, closely followed by touching (fondling) behaviors. Goodman-Brown et al. (2003) found a

significant relationship between more severe abuse and delayed disclosure, but this relationship was prior to the forensic interview. They did not examine this relationship in the context of the forensic interview. The lack of research on this relationship may be due to an overall lack of significance in reported findings. Studies may have examined this, but not included it in their reported findings or included the variable in the final statistical analysis. Since there is a limited body of research examining disclosure within forensic interviews as it is, there is a need to establish a base of knowledge on this relationship, whether significant or not.

Relationship to perpetrator. Relationship to the perpetrator and disclosure within forensic interviews has been one of the most reported significant findings in the literature. Goodman-Brown, et al. (2003) found that children and adolescents were less likely to disclose abuse during a forensic interview if the abuser was a family member, because they felt more responsibility for the abuse and were more concerned about negative consequences. In DeVoe and Faller's (1999) study with 96 children participating in forensic interviews, children whose abuser was related to them and living in the home were more likely to reluctantly or partially disclose as compared to children whose abuser was unrelated or lived outside of the home. Hershkowitz, et al. (2007) found that 78% of children who knew their abuser delayed talking about the abuse both initially and within formal investigations. Similarly, in a study of 47 corroborated cases of sexual abuse allegations, children participating in forensic interviews were less likely to disclose the abuse if they were related to the perpetrator (Sjoberg & Lindblad, 2002). While this study had a small number of participants, one of the main strengths was that it used only cases where the perpetrator confessed to the abuse. Based on the available research, it

appears that when a perpetrator is related to the child, the child is less likely to disclose, or will delay disclosure, within forensic interviews.

Perpetrator threats, bribes or manipulation. It appears that the relationship between a child's disclosure during the forensic interview and the experience of perpetrator threats, bribes and/or manipulation has not been examined directly within research. In a study previously discussed, Hershkowitz, et al. (2007) found that children delayed disclosure, or were reluctant to disclose, when perpetrators were both known and used grooming, manipulation, and bribes to keep the children quiet. However, this is the only study that directly examined the relationship between these factors. The study did not examine perpetrator threats or force during the abuse and the children's disclosure during the forensic interview. Other research has examined a child's fear of negative consequences for themselves or their families, based on threats made by the perpetrator (see Goodman-Brown, et al., 2003), however the study did not specifically examine perpetrator threats in isolation from other negative consequences. Although surprising, it appears that research has not yet fully examined the relationship between perpetrator threats, bribes, and/or manipulation and disclosure during forensic interviews.

Influence of initial disclosure on disclosure during forensic interviews. The type of initial disclosure and disclosure during forensic interviews has been examined often, although the research has varied considerably in the exact relationship that has been explored. Some just report descriptive data as was the case with Gries, et al., (1996), when they reported that 93% of children who had previously disclosed sexual abuse before the forensic interview also disclosed during the forensic interview. However, the authors did not specify how the initial disclosure occurred and whether it was delayed or

immediate. Some research has reported on the type of initial disclosure. For example, in Bradley and Wood's (1996) sample of 249 cases, 72% of children made a verbal disclosure prior to the forensic interview. However, the authors did not specify whether the verbal disclosure was the first disclosure, or if the initial disclosure was delayed. Two studies looked at the relationship between initial disclosure timing (delayed or not delayed) and disclosure during forensic interviews. Pipe et al., (2007) found that when children initially disclosed immediately, they disclosed both more often and with more details during forensic interviews. Sjoberg and Lindblad (2002) examined a slightly different relationship, where they identified children as being more uncooperative during investigations if they delayed initial disclosure by more than one month. Based on the existing research, there appears to be agreement that the type and timing of the initial disclosure does influence disclosure during forensic interviews.

Family support and disclosure during forensic interviews. Finally, the issue of family support and disclosure within forensic interviews is one that has been largely overlooked within this small body of literature. In the previously mentioned study by Hershkowitz, et al. (2007), the authors suggest that children are more likely to disclose directly and purposefully in the context of a forensic interview or investigation when they anticipate family support. Interestingly, most of the children in the study who anticipated supportive reactions from family members received family support; those that anticipated negative reactions usually experienced negative reactions from parents such as anger at the child, disbelief, or failure to protect the child. The research did not say whether the parents ever moved beyond their anger and disbelief. Beyond this study and the small body of research on family support and initial disclosure, this is an area of research that

has been vastly overlooked. Findings in other studies seem to indirectly point to the importance of family support. For example, Goodman-Brown et al. (2003) found that children who had been abused by a relative and who feared that their disclosure would result in negative consequences for themselves or the perpetrator took longer to disclose during a forensic interview. However, the study did not specifically examine family support as a separate factor. Given the clear and implied importance of family support on the disclosure process for children, it is imperative that research examine family support and disclosure in forensic interviews.

Summary of literature on disclosure of CSA during forensic interviews. As discussed, the literature on disclosure during forensic interviews is limited. Significantly fewer studies have examined the relationship between child characteristics, abuse specific factors, family support and disclosure of CSA as compared to the body of literature on initial disclosure. Among the existing research on disclosure within forensic interviews, the sample sizes are small and are not random samples, nor are they nationally representative. Some factors related to child demographics and abuse specific factors have been examined, but perhaps due to small sample sizes, only a few variables are examined. Factors such as the child's race/ethnicity and culture and family support and disclosure within forensic interviews have been especially overlooked. While interest in examining disclosure in the context of formal investigations seems to be growing, there does still remain a great need to examine more closely the impact of specific factors and disclosure in larger, representative studies.

Outcomes After Disclosure

The fears that children and adolescents have about outcomes after initial and forensic disclosure have been well documented. Research has shown that children may not disclose or delay disclosure because they are afraid of negative consequences for themselves, their families, or the perpetrator (Gilgun, 2010; Staller & Nelson-Gardell, 2005; Ullman, 2003). Children and adolescents commonly mention fear of child protection and law enforcement as a reason to avoid disclosure because they know professionals will have to take formal action (Ungar, et al., 2009b). However, there is actually little existing research documenting what kind of outcomes children and families are actually experiencing.

Outcomes following disclosure of sexual abuse typically fall into two categories within the existing literature: psychological outcomes and criminal prosecution outcomes. However, because psychological outcomes and criminal prosecution outcomes are beyond the scope of this study, they will not be reviewed here. The outcomes directly related to this study, service referrals and family living situations are reviewed, although both offer only a handful of studies. A review of existing literature is presented below, along with a summary of existing gaps within the literature.

Service outcomes: Counseling and referrals for other services. The literature regarding service outcomes to children and families is limited. Most of the related research has focused on evaluations and comparisons of cases that are handled through Child Advocacy Centers (CACs) versus the standard approach to child sexual abuse investigations which is typically handled only through law enforcement or child protective services separately. Research has consistently shown that CACs provide more

referrals of services for children and families including medical exams and counseling (Cross et al., 2008; Smith, et al., 2006). One study found that over 85% of substantiated cases of child sexual abuse received a referral for mental health services (Smith et al., 2006), although the actual sample size was quite small with only 14 cases of substantiated sexual abuse. However, research on the types of services offered to children after forensic interviews in relation to their demographic characteristics, abuse specific factors, and family support is not available.

Child placement and safety plan outcomes. There is limited existing research on child placement outcomes in cases of child sexual abuse. Even descriptive statistics on out of home placement is scarce. From the existing research available, it appears that percentages of out of home placement range from eight percent to fifteen percent. Palmer, et al. (1999) found that of the 384 cases of sexual abuse they studied, an investigation into the abuse was undertaken in only twelve percent of cases. Action regarding the perpetrator was even lower; only five percent of abusers were removed from the home, six percent were formally charged by police and only three percent were convicted. Unfortunately, eight percent of children were removed from their homes due to the abuse, many of which ended up in foster care. More recently, Cross et al. (2008) established that 15% of children are removed from their homes after they have received a forensic interview at a CAC. Some research has shown that while parental support is an essential part of assessing risk of harm to the child in making post-forensic interview safety decisions, this can be an inconsistent predictor in a child's psychological well-being (Bolen & Lamb, 2007). The authors in this study found that while parental support did predict better outcomes for children in terms of behaviors and psychological well-

being, they also noted the relationship was moderated by other variables. Everson et al. (1989) also found lack of maternal support as a significant predictor when examining out of home placement decisions.

A safety plan is a formal plan put into place with the family after a substantiated report of abuse or neglect is made and after an assessment for risk of harm has been conducted with the family. Safety plans can range from in-home supportive services, removal of the perpetrator, child placement with a relative, or out of home placement. According to DePanfilis, and Salus (2003), caseworkers should have an impact on the risk factors, be reasonable and accessible for the family to achieve, be put into place for the entire duration of risk of harm to the child, and help caregivers protect the child. Studies examining the rates of safety plan implementation in cases of child sexual abuse could not be located. This is a serious gap in the literature.

Summary of Existing Gaps in the Literature

As demonstrated in the literature review, most research on the topic of disclosure of child sexual abuse has focused on the factors associated with the initial disclosure of CSA. There are four main gaps in the literature. First, few of these studies have examined these factors in the context of a forensic interview. Second, research on how race/ethnicity and culture influences disclosure of CSA is sparse; only one study could be located regarding the influence of a child's race and culture on disclosure during forensic interviews. Third, while some literature has investigated maternal support in relation to disclosure there is virtually no research regarding how family support, not just maternal support, influences disclosure in the context of forensic interviews. And fourth, there is also very little research in general on outcomes for services and family living situations in

cases of child sexual abuse. Thus, the purpose of the current study is to contribute findings to the existing gaps within the literature on the factors that influence disclosure of CSA within forensic interviews and to examine outcomes within child protection cases for children and families after forensic interviews.

Chapter Four: Methods

This chapter provides a description of the methods used in this study. It begins with a brief introduction and overview of the study. Next, a description of the research design and research questions and hypotheses are presented, along with an in-depth definition and operationalization of all variables used in this study. The population and sample, including the sampling and inclusion criteria, are described. Finally, a description of the study's procedures and data analyses are provided.

Using a secondary data analysis of existing records, this study examines factors related to active and tentative disclosure of child sexual abuse during forensic interviews. This study used a convenience sample with data collection occurring in two phases. In the first phase, content analysis was used to code 196 previously conducted video-taped forensic interviews and corresponding case files. Cases were coded for the outcomes of active or tentative disclosure along with other variables including child demographics, abuse specific factors, and level of family support. In the second phase of data collection, cases were matched to records in child protection cases for the outcomes of counseling for the child, referrals for the family for basic needs, child out of home placement, and safety plan implementation. Specific questions addressed by this study are: 1.) How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?; 2.) Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?; and 3.) Are family living situation outcomes in child protection cases predicted by child demographic

characteristics, abuse specific factors, and family support? To answer these questions, data analysis included descriptive statistics and logistic regression.

Research Design

This study was a quantitative study consisting of two phases of data collection. The first phase was based on a secondary data analysis where children disclosed sexual abuse during forensic interviews. Using content analysis, data was collected by watching videotaped forensic interviews one time and included children's demographics, information related to the abuse, whether the family was supportive or not, and the way the child disclosed, either actively or tentatively, during the interview. The second phase of data collection connected the previously coded forensic interview cases to case records in the Hennepin County child protection department. Data collected from the child protection case records included the type of services offered to the child and family and the family living situation. Types of services offered included individual counseling for the child and referrals to the family for basic needs such as housing, medical, or food assistance. Family living situation data included whether the child remained in the home or if they were removed and whether a safety plan was implemented in the home.

Research Questions and Hypotheses

Specific research questions addressed by this study are below. For each of the three research questions, there are several hypotheses. The hypotheses are based upon previous research, as outlined by the summary of relevant literature below. For a summary of research questions and corresponding hypotheses, see table 4.1.

1. How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?

H1: Older children will be more likely to tentatively disclose.

H2: Boys will be more likely to tentatively disclose.

H3: Children who identified as African American, Hispanic, Multi/Bi-racial, or other (Asian, African, or American Indian) will be more likely to tentatively disclose.

H4: Children with identified disabilities or mental health diagnoses will be more likely to tentatively disclose.

H5: Children who did not disclose verbally prior to the forensic interview will be more likely to tentatively disclose.

H6: Children who experienced more severe abuse (i.e. penetration) will be more likely to tentatively disclose.

H7: Children and who did receive threats, bribes, or manipulation from the perpetrator will be more likely to tentatively disclose.

H8: Children who are abused by an adult will be more likely to tentatively disclose.

H9: Children who are related to the alleged perpetrator will be more likely to tentatively disclose.

H10: Children with non-supportive families will be more likely to disclose tentatively.

H11: Children who delayed disclosure prior to the forensic interview will be more likely to tentatively disclose.

The first, second, third, and fourth hypotheses are based on previous research that has found that older children (Goodman-Brown, et al., 2003), boys (DeVoe & Faller, 1999), and children with disabilities or mental health diagnoses (Priebe & Svedin, 2008; Sullivan & Knutzon, 2000) are less likely to readily disclose sexual abuse. The sixth, seventh, and eighth and ninth hypotheses are also based on previous research that has found that children who have experienced more severe abuse (Arata, 1998; Ullman, 2003), are related to the perpetrator or abused by an adult (Hershkowitz, et al., 2007), and who have experienced threats, bribes or manipulation (Palmer, et al., 1999) are less likely to readily disclose sexual abuse. The tenth hypothesis is based on research that identifies children as being more likely to disclose if the child anticipates a supportive response (Hershkowitz, et al., 2007; Jensen, et al., 2005). While these factors have been evaluated in existing research, they have not been all evaluated in one study, with family support, in the context of a forensic interview. Furthermore, these have not been evaluated within the context of the Process of Disclosure model (Sorenson & Snow, 1991), examining active or tentative disclosure.

2. Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?

H1: Children who have experienced more severe abuse will be more likely to receive counseling.

H2: Children who are related to the perpetrator will be more likely to receive counseling.

H3: Children who experienced perpetrator bribes, threats, or manipulation will be more likely to receive counseling.

H4: Children with unsupportive families will be more likely to receive counseling.

H5: Children who have experienced more severe abuse will be more likely to receive referrals for basic needs services.

H6: Children who are related to the perpetrator will be more likely to receive referrals for basic needs services.

H7: Children who experienced perpetrator bribes, threats, or manipulation will be more likely to receive referrals for basic needs services.

H8: Children with unsupportive families will be more likely to receive referrals for basic needs services.

The first and fifth hypotheses are based upon the assumption that service providers will be more likely to identify a need for counseling for the child and referrals for basic needs if the abuse was severe since children who have experienced more severe abuse have more pronounced mental health symptoms (O’Leary, Coohy, & Easton, 2010). The second, third, sixth and seventh hypotheses are based on previous research that shows that if sexual abuse was perpetrated by a family member and if children experience perpetrator threats, children are more likely to experience mental health issues and therefore may be in greater need of counseling or other referrals for services (O’Leary, et al., 2010; Ullman, 2007). The fourth and eighth hypotheses are based upon previous research that shows that children with unsupportive families are more likely to experience PTSD (Hyman, Gold, & Cott, 2003). Therefore, when a family has been identified as unsupportive by not believing the child, not offering emotional support, taking protective action, or not reporting the abuse, the child and family will be in greater need of services. In context of the social exchange theory as applied to CSA disclosure

within forensic interviews (Leonard, 1996), children may view receiving services for themselves and family members as a reward for disclosing the abuse. They may receive help that they may want to process the abuse, such as counseling, and family members might also receive help they need (assistance for housing, financial assistance, etc.).

3. Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support?

H1: Children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to be removed from the home.

H2: Children who have experienced more severe abuse will be more likely to be removed from the home.

H3: Children who are related to the perpetrator will be more likely to be removed from the home.

H4: Children with unsupportive families will be more likely to be removed from the home.

H5: Younger children will be more likely to have a safety plan implemented in the home.

H6: Children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to have a safety plan implemented in the home.

H7: Children who have experienced more severe abuse will be more likely to have a safety plan implemented in the home.

H8: Children who are related to the perpetrator will be more likely to have a safety plan implemented in the home.

H9: Children with supportive families will be more likely to have a safety plan implemented in the home.

The first and sixth hypotheses are based upon research that indicates that children of color are over-represented in the foster care system (Chibnall, et al., 2003). The fifth hypothesis is based on the idea that younger children may be more vulnerable to protecting themselves in the home if the perpetrator has access to them. The third, fourth, seventh, and eighth hypotheses are based upon the assumption that child protection workers will remove the child or enforce a safety plan if the abuse was severe and if the perpetrator was related to the child. If the perpetrator is outside of the family home, there would not be a need to change the living circumstances unless the non-offending parent continues to allow the perpetrator to access the child in the home. The fourth and ninth hypotheses are based upon the definition of family support: believing the child, providing emotional support, and taking action to protect the child from the perpetrator, such as removing the perpetrator from the home or from accessing the child (Everson, et al., 1989). If the family is unsupportive, they are more likely to have the child removed from the home since they haven't demonstrated that they have protected the child or will protect the child from further abuse (Malloy & Lyon, 2006). However, if they are supportive, they will be more likely to demonstrate that they can follow a safety plan to keep the child safe.

It is important to tie these hypotheses to the social exchange theory as applied to CSA disclosure within forensic interviews (Leonard, 1996), as children may view

resulting family living outcomes as either a cost or reward, or both. Children may view disclosing abuse as a reward if the abuser is removed from the home or if a safety plan is implemented successfully, resulting in the termination of abuse. However, they may also view disclosure and the resulting outcome as a cost if the perpetrator was a family member and is removed from the home. Children may also view it as a cost if their families are unsupportive or if they themselves are removed from the home.

Table 4.1 Research Questions and Hypotheses

Question 1: How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?
H1: Older children will be more likely to tentatively disclose.
H2: Boys will be more likely to tentatively disclose.
H3: Children who identified as African American, Hispanic, Multi/Bi-racial, or other (Asian, African, or American Indian) will be more likely to tentatively disclose.
H4: Children with identified disabilities or mental health diagnoses will be more likely to tentatively disclose.
H5: Children who did not disclose verbally prior to the forensic interview will be more likely to tentatively disclose.
H6: Children who experienced more severe abuse (i.e. penetration) will be more likely to tentatively disclose.
H7: Children and who did receive threats, bribes, or manipulation from the perpetrator will be more likely to tentatively disclose.

H8: Children who are abused by an adult will be more likely to tentatively disclose.
H9: Children who are related to the alleged perpetrator will be more likely to tentatively disclose.
H10: Children with non-supportive families will be more likely to disclose tentatively.
H11: Children who delayed disclosure prior to the forensic interview will be more likely to tentatively disclose.
Question 2: Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?
H1: Children who have experienced more severe abuse will be more likely to receive counseling.
H2: Children who are related to the perpetrator will be more likely to receive counseling.
H3: Children who experienced perpetrator bribes, threats, or manipulation will be more likely to receive counseling.
H4: Children with unsupportive families will be more likely to receive counseling.
H5: Children who have experienced more severe abuse will be more likely to receive referrals for basic needs services.
H6: Children who are related to the perpetrator will be more likely to receive referrals for basic needs services.
H7: Children who experienced perpetrator bribes, threats, or manipulation will be more likely to receive referrals for basic needs services.
H8: Children with unsupportive families will be more likely to receive referrals for

basic needs services.
Question 3: Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support?
H1: Children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to be removed from the home.
H2: Children who have experienced more severe abuse will be more likely to be removed from the home.
H3: Children who are related to the perpetrator will be more likely to be removed from the home.
H4: Children with unsupportive families will be more likely to be removed from the home.
H5: Younger children will be more likely to have a safety plan implemented in the home.
H6: Children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to have a safety plan implemented in the home.
H7: Children who have experienced more severe abuse will be more likely to have a safety plan implemented in the home.
H8: Children who are related to the perpetrator will be more likely to have a safety plan implemented in the home.
H9: Children with supportive families will be more likely to have a safety plan.

Dependent Variables

The following section outlines key definitions used to operationalize the dependent variables used to answer each of the three research questions in this study. A table outlining all variables, their definitions, and coding for each of the logistic regression analyses can be found at the end of this chapter, on Table 4.2.

Disclosure during forensic interviews. In the current study, disclosure of alleged sexual abuse during the forensic interview is defined as a statement by the child that identifies both the alleged perpetrator and abuse allegation. However, the disclosure of abuse can vary depending on how much information the child is willing to provide. Following Sorenson and Snow's (1991) definitions in their model of the process of disclosure, disclosure will be further categorized as active or tentative.

Active disclosure. Active disclosure is when a child makes a full statement with supportive details corresponding to the reported abuse allegation. Criteria for an active disclosure includes a.) readily identifying the alleged perpetrator and alleged abuse when invited to disclose by the interviewer, b.) providing contextual details, when asked or as part of a narrative statement regarding the abuse with few to no statements such as 'I don't know' or 'I don't want to talk about it', and c.) generally displaying little to no reluctance or hesitation in discussing the abuse or providing details.

Tentative disclosure. Tentative disclosure is when a child displays avoidance or reluctance in identifying the alleged perpetrator or abuse allegation when invited to talk about why they are there. Unlike a non-disclosure, when a child tentatively discloses, they do make a statement identifying an alleged perpetrator and abusive act, but provide minimal details. Following Sorenson and Snow's (1991) Process of Disclosure model,

interviews categorized as tentative may exhibit characteristics such as forgetting (I forgot), distancing themselves (It happened to my friend), minimizing (It only happened once), empowerment (He tried to touch me, but I got away), and discounting (I was kidding). Coding criteria for a tentative disclosure include a.) shows great reluctance or hesitation in naming the alleged perpetrator or providing details of the alleged abuse when invited by the interviewer to disclose, b.) makes a partial, incomplete disclosure, or minimizes the reported allegation by excluding significant details related to the abuse allegation, c.) makes several statements such as ‘I don’t know’, ‘I don’t remember’, ‘I forgot’, or ‘I can’t/don’t want to talk about it’ when invited to disclose or to provide contextual details about the abuse allegation, and d.) generally avoids questions or purposefully tries to distract or redirect the conversation without providing answers when asked, or providing minimal details, about the alleged abuse. Tentative disclosure may also occur when a child readily makes an initial disclosure statement, identifying the alleged perpetrator or abuse allegation, but then avoids providing supporting details throughout the remainder of the interview.

Service and living outcomes for children and families in child protection cases. Dependent variables in service and living outcomes for children and families in child protection cases include services recommended by the child protection worker and completed by the family. Services recommend by the child protection worker and completed by the family include counseling for the child and referrals for basic resources such as food, housing, financial assistance, medical care, or for other basic needs. Family living outcomes identify whether the child was removed from the home and whether a safety plan was put into place in the home.

Independent Variables

The following section outlines key definitions used to operationalize the independent variables used to answer each of the three research questions in this study. A table outlining all variables, their definitions, and coding for each of the logistic regression analyses can be found at the end of this chapter, on Table 4.2.

Child demographics. Variables related to children's demographics include age, gender, race/ethnicity, and identified disability or mental health diagnosis. Data regarding these variables was contained in the case files at CornerHouse and codes follow the categories contained in the case files. Therefore, all categories are limited to the existing data contained in the case files. Age was coded as the numerical number by year and month (i.e. 6.3 for 6 years of age, born in March) of the child at the time of the interview. Gender is male or female. Categories for Race/Ethnicity include African American, Caucasian, Hispanic, Multi/Bi-Racial or other (includes American Indian, African, Asian and unknown). The category of other was created to combine categories with small numbers into a larger category for the purpose of statistical analysis. Disability was identified as developmental/cognitive, ADHD, other (includes learning, deaf/heard of hearing, or a medical condition), or none. Identified mental health diagnosis included depression, anxiety, PTSD, injurious behavior, suicidal ideation or attempts.

Contextual and abuse specific factors. Factors related to the abuse allegation include the sexual abuse allegation, relationship of the alleged perpetrator to the child, and whether the child experienced threats, bribes or manipulation by the perpetrator to keep quiet about the abuse. Sexual abuse allegation is categorized by the case file and

includes exposure (forcing child to look at perpetrator or to view pornography) or fondling (touching the child either over or under clothing), oral (performing oral sex on child or forcing child to do so on perpetrator), and penetration (penetrating child's genital or anal area with alleged perpetrator's hands or genitals). Relationship of alleged perpetrator to the child included perpetrators related to the child biologically or through marriage (father, grandfather, uncle, step-father, siblings, cousins) or those unrelated to the child, related peers (parent boyfriends/girlfriends, acquaintances). Age of the perpetrator included whether the alleged perpetrator was an adult at the time of the reported abuse (18 years of age or older) or a peer (under 18 years of age). Threats, bribes and manipulation by the alleged perpetrator are coded by statements in the case file or by the child during the interview. Examples of threats are if the alleged perpetrator told the child they would physically, emotionally, or otherwise harm the child, themselves, or a child's family or friends if the child told anyone about the abuse. Bribes include actions by the alleged perpetrators to keep the child quiet such as giving the child gifts or taking them on special outings. Manipulation is any other verbal or behavioral action by the alleged perpetrator to keep the child from talking about the abuse such as telling the child the abuse is their fault or that no one will believe the child if they tell.

Circumstances of disclosure prior to the forensic interview. The type of disclosure prior to the forensic interview includes verbal, witnessed/perpetrator confession, and behavioral/medical results. A verbal disclosure is when a child made a statement to someone about the abuse and it was reported. The witnessed abuse or perpetrator confession category is when someone witnessed the abuse as it was

happening and the abuse was reported or when the alleged perpetrator made a confession to another individual. The witnessed abuse ($n=20$) and perpetrator confession categories ($n=7$) were combined due to smaller numbers in each separate category. The behavioral disclosure or medical results category includes when a child displays concerning behaviors, such as acting out sexually or making sexual gestures and comments, and the suspected abuse is reported or when the results of a medical exam, such as a pregnancy or sexually transmitted disease prompted a report. The categories of behavioral ($n=9$) and medical results ($n=3$) were also combined due to small numbers in each separate category. It is important to note that these categories were combined after consultation with CornerHouse interview and medical staff as to the most logical combination of the circumstances of initial disclosure categories.

Initial delayed or not delayed disclosure prior to the forensic interview. The category of initial delayed or not delayed disclosure included information regarding the duration of time between the first act of abuse and when the child disclosed the abuse. Children who did not disclose the abuse to anyone from 7 days and on (years) were included in the delayed category. Children who disclosed the abuse immediately, sometimes within minutes, to 6 days after the abuse began, were included in the not delayed category.

Family support. Family support follows the definition by Everson, et al. (1989), which identifies full family support as requiring three elements upon disclosure: believing the child, providing emotional support, and taking action to protect the child from the perpetrator, such as removing the perpetrator from the home or from accessing the child. In the current study, family support also includes the additional element of

reporting the abuse or seeking outside assistance. Family support is divided into three levels, high family support, some family support, and unsupportive family. Family support is based upon the reaction of the non-offending parent or guardian with whom the child primarily resides with. In some cases, if a child resides in more than one household and the non-offending parents or guardians have distinctly different reactions, the case is categorized as having some family support.

High family support. Highest supportive reaction by parents or guardians to initial disclosure includes fulfilling all four criteria of a.) believing the child, b.) providing emotional support including encouraging the child to talk to investigators, c.) taking action to protect the child from the perpetrator, such as removing the perpetrator from the home or from accessing the child and d.) reporting the abuse or seeking outside assistance.

Some family support. This category includes supportive action by parents or guardians, in all but one or two of the four criteria of a highly supportive family. If families fail to provide support in two of the four criteria, the combination can only be a failure to provide support in one of the three main elements of family support as defined by Everson, et al. (1989) and failing to report the abuse or seeking outside assistance. Families who fail to provide support in more than one of the main criteria as defined by Everson et al. are categorized as unsupportive.

Unsupportive family response. Parents or guardians who have an unsupportive reaction to initial disclosure includes failing to fulfill two or more of the four criteria for a highly supportive reaction including two areas of the three elements of family support as defined by Everson et al. and include behaviors such as a.) stating they did not believe

the child, b.) told the child not to tell anyone and didn't provide emotional support, c.) did not take protective action on behalf of the child . In this study, there were no cases where families failed to provide support in two of the three elements of family support, but reported the abuse or sought outside help.

Description of Sample

The sample in this study was based upon a convenience sample of existing case records at CornerHouse and within corresponding child protection cases in Hennepin County. All data collected was based upon a secondary data analysis of existing records: video-taped forensic interviews and case files and outcomes in child protection cases for the same children. Data was collected by coding from this existing data, therefore no additional information was available to corroborate the accuracy of the data. Case file data is collected by the intake team at CornerHouse. The intake team obtains information about the children and the factors related to the abuse allegations from the initial hotline call, child protection, and law enforcement. Occasionally, the intake team will contact the family prior to the forensic interview if there are questions about the child's needs for an interpreter or for a multiple-session interview. It should be noted, however, that oftentimes there is not time to collect such information if the forensic interview occurs within hours or a few days after the initial hotline call. Incorrect information in the case file does occur. If new information is obtained prior to, or during the forensic interview or during the meeting with the family at the time of the forensic interview, the case file is corrected. Since all data was obtained after all forensic interviews were conducted, any new information to update or correct the case file would have occurred. However, without the ability to directly ask the children and families directly about demographic

information, it is possible that the information in the case file was not always accurate. This is a limitation of the current study, which will be address more in depth in Chapter 6. In this section, a description of the sample is provided. The sampling criteria and inclusion criteria is outlined followed by a description of the sample participants.

Sample criteria. The sample for the present study consisted of 196 cases where children participated in forensic interviews regarding sexual abuse allegations at CornerHouse, a Children’s Advocacy Center located in Minneapolis, MN. The sample for this study is based on secondary data analysis of cases included in two previously IRB conducted studies. Data for the first study was collected from 115 cases from October 2011 through April 2012. Data for the second study was collected from 81 cases from February 2013 through May 2013. Cases in the first study included forensic interviews conducted with children ages 3 to 18 from 2010 through 2012 and cases in the second study included forensic interviews conducted with children ages 2 to 18, and with 4 adults with significant cognitive and developmental disabilities (ages 25, 27, 28 and 46), from October 2012 through December 2012. Criteria for inclusion the first study was if the child disclosed sexual abuse during the forensic interview, if the child participated in a single session forensic interview, and if the primary abuse allegation was sexual abuse. Criteria for inclusion in the second study were if the child participated in a single session forensic interview and if the primary abuse allegation was sexual abuse. Only children who disclosed sexual abuse allegations during the forensic interview were included in the study. Therefore, since the present study is based upon a secondary analysis of two previous studies, criteria for inclusion in the present study was if the child participated in a single session forensic interview where they disclosed sexual abuse and if the primary

abuse allegation was sexual abuse. Convenience sampling was used to include as many cases as possible that satisfied the inclusion criteria during the specified time periods. Of the 196 cases that were included for studying disclosure during the forensic interview, 139 of those cases were referred to child protection involvement in Hennepin County and outcome data was obtained for those cases. All cases where data was available were included in the sample.

Interviewers. Eight trained interviewers conducted all of the forensic interviews used in the present study. Interviewers were employees at CornerHouse. They have a range of one to over twenty years of experience completing forensic interviews. Five of the eight have advanced degrees in social work or in education. Interview staff all undergo extensive specialized training in conducting forensic interviews and in the CornerHouse Forensic Interview Protocol. At the outset of the current study, interviewers adhered to a range of practice in regards to the use of open-ended inquiry and narrative practice techniques.

Description of participants. Participants in the study included 196 children who disclosed sexual abuse during a forensic interview at CornerHouse in Minneapolis, MN. A description of the children's demographics are presented below.

Age and gender. The average age of participants was 10.33 ($SD=5.06$) with a range of 2 to 46-years old. While the majority of participants were children in the age range of 3 to 18, there were also four adult participants (ages 25, 27, 28 and 46) with significant cognitive and developmental disabilities. There were 151 female and 45 males in the sample.

Race, ethnicity, and language. The majority of participants were identified within the existing case files as African American ($n=60$) and Caucasian ($n=57$). Other participants were identified as Hispanic or Latino ($n=30$) or multi/bi-racial ($n=33$). Other participants were identified as African ($n=5$), American Indian ($n=4$), Asian/Pacific Islander ($n=3$), or unknown ($n=4$). Most participants' first language was English ($n=162$), but many had first languages of Spanish ($n=8$), Arabic ($n=1$), Somali ($n=1$), or American sign ($n=1$). Other participants spoke bi-lingual Spanish ($n=23$) or bi-lingual Hmong ($n=1$).

Identified disability and mental health diagnoses. Finally, according to the existing records, the majority of participants had no identified disability or mental health diagnosis ($n=134$), a third of participants did have an identified mental health diagnosis or disability diagnosis ($n=62$). Of the 62 participants with identified disabilities or mental health diagnoses, 10 had an identified diagnosis of ADHD, 8 had identified developmental disabilities, and 33 had a mental health diagnosis. Eleven participants were identified as having an identified disability or condition in the other category including having a chronic medical condition ($n=1$), a learning disability ($n=7$), were deaf or hard of hearing ($n=2$), or were blind/visually impaired ($n=1$).

Procedure and Data Collection

This section outlines a detailed account of the procedure followed by the present study. First is a description of the procedures related to obtaining IRB approval for the current study as well as the previously conducted studies during which the data from the forensic interviews was obtained. Next is a detailed description of the data collection during both phases of this study.

Protection of human subjects and confidentiality. Because this sample was based on secondary data analysis of forensic interviews of existing case records, there were no risks to human subjects since the research did not require interaction with human subjects. However, prior to the commencement of any of the previous studies, and the current study, IRB approval was obtained from the University of Minnesota IRB. Expedited case review was granted from the University of Minnesota IRB for both previously approved studies and for the current study, since there was minimal risk to human subjects. Steps to protect confidentiality of children in the cases were taken by signing a confidentiality agreement with CornerHouse and by collecting de-identified data. Cases in the de-identified data can be linked to case records at CornerHouse by consulting a password protected master list housed at CornerHouse. Prior to the commencement of phase two, approval was granted by the Hennepin County Human Services and Public Health Department's Institutional Research Review Committee.

Phase one data collection. The first phase of data collection consisted of watching videotaped forensic interviews one time and reviewing case files for additional information. Data collected from case files included children's demographics such as age, gender, race/ethnicity, and identified disability or mental health diagnosis. Case file data gathered regarding the sexual abuse allegation included the alleged perpetrator's age and relationship to the child, the specific abuse allegation, the circumstances of disclosure, and when the child disclosed the abuse initially. Data collected from watching the forensic interviews included how the child disclosed, actively, tentatively, the level of family support, and whether the child experienced perpetrator threats, bribes or manipulation. Any additional data that was not noted in the case file, such as if the

child had experienced or witnessed physical abuse, was exposed to substance abuse in the home, or had a disability or mental health diagnosis was collected. Inconsistencies between the case file data and information provided by the child during the interview were rectified by using information provided by the child during the interview. For example, if the case file listed no known mental health diagnosis, but the child stated during the interview that they were seeing a counselor for depression, the child would receive a code for 'mental health diagnosis, depression'. The child's disclosure statement was transcribed verbatim. Field notes documented the child's overall affect, behavior, and interaction with the forensic interviewer.

Data coding of disclosure type during phase one. Type of disclosure, active or tentative, was coded by watching the entire videotaped forensic interview and coding according to the child's statements, behavior, and overall demeanor throughout the interview. Details regarding operationalized definitions of active, tentative, and non disclosures can be found in Table 4.2. Once codes were assigned for all 196 interviews, the corresponding case file summaries were reviewed to obtain information regarding the forensic interviewer's description of how the child disclosed and behaved throughout the interview. This part of the case file contains a written narrative of the interviewer's impressions of the child's affect, ability, and overall presentation during the interviews. Interviewers recorded these summaries after conducting the interview and re-watching the interview at a later date. All case file summaries were completed by the interviewer who conducted the forensic interview with the child. From these summaries, interviews were coded as active or tentative disclosure according to the same coding criteria as used for coding the videotaped forensic interviews. Words that described active disclosures

included ‘active’, ‘detailed’, ‘readily’, ‘engaged’, ‘comfortable’. Words and phrases that described tentative disclosures included ‘tentative’, ‘very reluctant’, ‘hesitant’, ‘incomplete’, ‘few details’, ‘very uncomfortable’, ‘inconsistent’, and ‘engaged in repeated attempts to distract the interviewer’. Codes from the case summaries were recorded in a separate file from the codes previously recorded and were compared for agreement and to calculate inter-rater reliability upon completion of gathering all of the data in phase one. A copy of the coding sheet used when gathering data from watching the video-taped forensic interviews can be found in Appendix A.

Phase two data collection. The second phase of data collection consisted of connecting the previously coded cases in phase one to case records in the Hennepin County child protection department. Upon approval by the Hennepin County Human Services and Public Health Department, a list of requested outcomes was sent to the data analyst that pulled the outcome data. The requested outcomes included whether the child was referred for and received counseling, whether additional family members, including the alleged perpetrator, was referred for and received counseling, whether referrals for basic needs, domestic violence services, or substance abuse treatment were made, whether a safety plan was put into place in the home, whether the alleged perpetrator was removed from the home, or if the child was placed outside of the home. For the purposes of matching cases, a password protected file with the assigned research number and child’s name and birth date was sent directly from a CornerHouse staff member to a staff member in the Corporate Compliance and Quality Assurance department within the Hennepin County Human Services and Public Health Department. Additional identifying data was requested to assist with finding approximately 20 cases. A total of 139 cases

were successfully matched in the Hennepin County child protection case system.

Requested case outcomes were provided in a yes or no format in the following categories: child counseling, basic needs referrals, safety plan implementation, and placement of the child outside of the home. Although requested, data regarding domestic violence services and substance abuse treatment was not available.

Data Analysis

In this section, the data analysis approach is outlined. First, a description of data coding using content analysis is presented, including information about validity, reliability and inter-rater reliability. Next, the statistical software and analysis for each research question is described. Finally, a description of how this study used model fit and effect size statistics is presented.

Data coding using content analysis. Content analysis is research on existing records, or recordings, of human communications. It makes replicable and valid inferences from participant communication in specific contexts (Berelson, 1971; Krippendorff, 2012). With its roots in communication studies, it is now most widely used in humanities and social science research, although it is being used more in legal and political research as well. Content analysis is most appropriate for research wishing to study subjects without affecting their communication or behavior, which could ultimately reduce the validity of the data (Babbie, 2010). In the present study, having a researcher present during the forensic interviews could have changed the way that the children responded to the interviewer's questions and could have potentially caused the children more anxiety in an already stressful situation.

Content analysis has several core components when used in reliable and valid research (Krippendorff, 2012). First, definitions of meaning units and coding instructions must be clear. According to Graneheim and Lundman (2004), meaning units are words, sentences or paragraphs containing aspects related to each other through their content and context. In the present study, meaning units are both words and sentences. Second, coding instructions must clearly define the units coded, followed by examples. This not only ensures the reliability of the data, but also the validity. Deductive content analysis was used in this study. Deductive content analysis answers a research question or set of questions as related to a hypothesis or set of hypotheses (Mayring, 2000). Therefore, coding is purposeful and based upon previous research or theory. By assigning codes to clearly defined phenomena, content analysis allows for qualitative communication to be quantified for statistical analysis. In the present study, content analysis is appropriate because it uses existing case files and videotaped forensic interviews.

Two types of coding, manifest content and latent content, are commonly used in content analysis. Manifest content is the coding of words or surface content, which is similar to using a questionnaire. Manifest content uses easily defined codes and high reliability, but may not offer great validity if codes are too narrowly defined. In contrast, latent content examines the core meaning of words. While latent content is useful for expanding meanings to increase validity, it can also result in lower reliability if codes are too broad or poorly defined. To overcome the issues of both approaches of content analysis, Babbie (2010) recommends using both. In this study, both manifest and latent content analysis are used to define codes as will be illustrated in the following sections.

Validity of measurement. Knowing whether a concept is being correctly portrayed and operationalized within a measure used in research is ensuring that the measure's validity has been established (Babbie, 2010). According to Bloom, Fischer, and Orme (2005), establishing measurement validity is the most important measurement consideration. One way to establish measurement validity is by determining a measure's face validity. Face validity simply attempts to identify a measurement's validity by assessing the measure to see whether it appears to be reasonable in what it is attempting to measure (Babbie, 2010; Bloom, et al., 2005). In the present study, the use of already established and widely used codes for children's demographics and case specific factors, and family support services ensures high face validity. These established codes are an example of manifest content. Construct validity is whether variables are related to each other in a plausible way, which is informed by theory (Bloom, et al., 2005). The variables of types of disclosure during the forensic interview, perpetrator threats, and family support relate to previously established definitions in the literature and therefore have construct validity. These variables are representative of both manifest and latent content. For example, if a child says 'He threatened me.', it would be coded as a threat from a perpetrator. If a child says 'He said he would kill my mother if I told anyone', it is also coded as a threat, even though the word 'threat' is not contained in the phrase.

Reliability of measurement. A reliable instrument, or measurement tool, within research lends itself to replication with the same results. According to Babbie (2010), a reliable instrument will result in the same data collected under the same conditions over several applications. It does not mean that the data collected will be accurate, but a reliable instrument does ensure that the data collected will be consistent. In gathering

demographic and case specific information, using the already defined categories in the case files ensured that the same information was gathered across each case.

Inter-rater reliability (IRR) for the outcome variable of type of disclosure during the forensic interview was established by comparing the operationalized codes of active and tentative disclosure with interview summaries written by the forensic interviewer who performed the interview for all 196 cases in the sample. Agreement between my codes of active and tentative disclosures and that of the interviewer summaries in the case files was 91%. However, percentage of agreement between coders is insufficient for determining inter-rater reliability since it does not take into account the agreement that could happen by chance (Hallgren, 2012). Therefore, calculating IRR, correcting for agreement by chance, can be done by computing Cohen's Kappa (Cohen, 1960) with the following formula: $K=(P(a) - P(e))/(1-P(e))$, where $P(a)$ is the percentage of agreement and $P(e)$ is the calculated probability of expected agreement due to chance. $P(e)$ was calculated by determining the probability of coding an interview as active if ratings were assigned randomly between coders added to the probability of arriving at a chance agreement about tentative codes between coders (Hallgren, 2012). Kappa values can be between -1 and 1, with -1 indicating strong disagreement between coders, 0 as equal agreement and disagreement, and 1 with perfect agreement. For the current study, the final calculation arrived at a kappa of 0.80, where $P(a)$ was 0.91 and $P(e)$ was 0.53. When using content analysis, Krippendorff (2012) offers conservative guidelines for assessing whether kappa indicates conclusions about inter-rater reliability, with values between 0 and 0.67 as being unreliable, values between 0.67 and 0.80 as being tentatively reliable, and values above 0.80 as being reliable and conclusive. According to these

guidelines, the calculated kappa value of 0.80 of inter-rater reliability of codes can be considered nearly reliable and conclusive.

Statistical software and analysis. Since the present research is a quantitative study, all statistical analyses including descriptive statistics and logistic regression were performed using R (R Core Team, 2013). The current study used statistical analysis including descriptive statistics and logistic regression. To assess the first research question, How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?, logistic regression was used to assess whether different factors influence the two types of disclosure during the forensic interview, active or tentative. Multiple models were built to assess each hypothesis with significant variables remaining in the subsequent models. Logistic regression is the most appropriate analysis to use due to the type of dependent variable of disclosure type, which is a dichotomous variable. Furthermore, there are multiple independent variables. Type of disclosure was dummy coded to perform the analysis (see Table 4.2).

To assess the second question, Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?, logistic regression was used to analyze each type of service outcome through separate models. Logistic regression is the most appropriate analysis to use due to the type of dependent variable, which is a dichotomous variable. Furthermore, there are multiple independent variables. Each type of service, counseling for the child and basic needs were coded for whether the family received the service by dummy coding 0 for no and 1 for yes. For each model, the type of service was predicted by significant independent

variables including child demographics, abuse specific factors, and level of family support.

For the third and final research question, Are family living situations predicted by child demographic characteristics, abuse specific factors, and family support?, logistic regression was used to separately analyze two outcomes: whether the child was placed out of the home and whether a safety plan was put into place in the home. Logistic regression is the most appropriate analysis to use due to the type of dependent variable, which is a dichotomous variable. Furthermore, there are multiple independent variables. The safety plan outcome was coded as 0 for no safety plan and 1 for safety plan. For the child living situation, the outcome was coded 0 for remained in the home and 1 for removed from the home. Each outcome was predicted by significant independent variables including child demographics, abuse specific factors and level of family support.

Model fit and effect size analysis. To determine the significance of each category of predictors, diagnostic statistics were performed for each category to determine the overall contribution of the variable to the model and its significance by using the Wald test. To understand the overall model fit, the log likelihood ratio test and log likelihood are often calculated to determine whether the overall model fit is significantly better than an empty (intercept) model (Menard, 2002). As part of the log likelihood ratio test, the chi-square value, degrees of freedom, p-value, and overall log likelihood value, along with the pseudo R-squared values, were included in each of the final models. The effect size for the binary logistic regression models were assessed using the Cragg and Uhler (1970) pseudo R-squared estimate. In linear regression, r-

squared values measure the variance of the dependent variable as explained by the predictor variables, can provide information on whether a model is an improvement over a null model, and measures partial correlation values between predictors and outcome variables (Institute for Digital Research and Education, 2013). The Cragg and Uhler pseudo R-squared estimate is often referred to as a 'revised' version of the Cox and Snell (1989) and is one of the most commonly reported R-squared estimates (Allison, 2013). The Cox and Snell R-squared estimate takes the ratio of the likelihoods of both the intercept model (empty model) and a full model to see whether the fitted model is a significant improvement. However, since the Cox and Snell does not go to a value of 1, the Cragg and Uhler modifies the Cox and Snell value so that the maximum value does go to 1 (Institute for Digital Research and Education, 2013). A Cragg and Uhler R-squared estimate ranges from -1 to 1 with a higher value indicating a higher contribution of the predictor(s) to the model. It should be noted that in logistic regression pseudo R-squared values are typically much lower than they are in linear regression and they should be interpreted with caution since the pseudo R-squared values in logistic regression do not have the same ability to compare variance across studies (IDRE, 2013).

Power analysis. There is no consensus on the approach to compute the power and sample size with logistic regression. Therefore, some statisticians recommend a variety of approaches including the likelihood ratio test, the Wald test, and approximations when assessing multivariate models in logistic regression (Demidenko, 2007). Due to the lack of agreement on how to perform a power analysis for logistic regression using multiple categorical predictor variables, consultation from the Office of Research and Consultation at the University of Minnesota was sought. Upon

consultation with ORCS staff, a post-hoc power analysis using a goodness of fit chi-square test was recommended. To perform the post-hoc power analysis, G*Power software (version 3.1) was used (Faul, Erdfelder, Buchner, & Lang, 2009). The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. Achieved power of 0.80 is recommended in statistical analysis (Demidenko, 2007). Achieved power for each final model is provided in the next chapter.

Table 4.2 <i>Description of Dependent and Independent Variables</i>				
Name of Variable	Definition	Type of Variable	Analysis	Coding
Dependent Variables				
Disclosure Outcomes				
Disclosure Type	Active disclosure is when a child makes a full statement with supportive details corresponding to the reported abuse allegation. Tentative disclosure is when a child displays avoidance or reluctance in identifying the alleged perpetrator or abuse allegation when invited to talk about why they are there.	Dichotomous	Logistic Regression	Active (0) Tentative (1)
Family Service Outcomes				
Counseling for child	Whether the child received counseling through a child protective service referral.	Dichotomous	Logistic Regression	No (0) or Yes (1)
Basic needs	Whether referral was made for services for other basic needs such as housing, food, medical, or financial assistance.	Dichotomous	Logistic Regression	No (0) or Yes (1)
Service and Living Outcomes for Children and Families in Child Protection Cases				
Child living situation	Whether the child was removed from the home after the forensic interview.	Dichotomous	Logistic Regression	In home (0) or Removed (1)
Safety Plan	Whether a safety plan was implemented in the home after the forensic interview.	Dichotomous	Logistic Regression	No plan (0), Safety plan (1)

Independent Variables				
Child Demographics				
Age	Numerical age (year and month) of the child at the time of the interview	Continuous		
Gender	Male or Female	Dichotomous		Female is reference category
Race	African American, Caucasian, Hispanic, Multi/Bi-Racial, or other (includes American Indian, African, Asian, or unknown)	Categorical		Caucasian is the reference category
Identified Disability or Mental Health Diagnosis	Developmental/cognitive, ADHD, other (includes learning disability, deaf/hard of hearing, and chronic medical), Mental Health diagnosis (includes depression, anxiety, PTSD, injurious or suicidal behavior), or none.	Categorical		None is reference category
Contextual and abuse specific factors				
Sexual abuse allegation	Exposure (forcing child to look at perpetrator or to view pornography) and fondling (touching the child either over or under clothing), oral (performing oral sex on child or forcing child to do so on perpetrator), and penetration (penetrating child's genital or anal area with alleged perpetrator's hands or genitals).	Ordinal		Exposure and fondling (0), oral (1), penetration (2)
Relationship of perpetrator to child	Perpetrators related to the child biologically or through marriage (siblings, cousins, father, grandfather, uncle, step-father), or unrelated.	Categorical		Reference group was Related.
Perpetrator age	Adults included alleged perpetrators 18 year old and over, peers were under 18.			Reference group was Adult.
Threats, bribes	Threats are if the alleged perpetrator told the child they	Categorical		Threats is the reference

and/or manipulation by perpetrator to child	would physically, emotionally, or otherwise harm the child, themselves, or a child's family or friends if the child told anyone about the abuse. Bribes include actions by the alleged perpetrators to keep the child quiet such as giving the child gifts or taking them on special outings. Manipulation is any other verbal or behavioral action by the alleged perpetrator to keep the child from talking about the abuse such as telling the child the abuse is their fault or that no one will believe the child if they tell.			group.
Type of disclosure prior to the forensic interview	Verbal disclosure (told someone who reported it), witnessed or perpetrator confession (someone witnessed the abuse and reported it or the perpetrator confessed), other (report made based on concerning behavior by child or a medical test indicating a pregnancy or std).	Categorical		Verbal is the reference group
Delayed or not delayed disclosure of abuse	Delayed was when a child delayed the initial disclosure of abuse to anyone 7 days and longer after the abuse started. Not delayed was when the child made an initial disclosure immediately to 6 days after the abuse occurred or began.	Categorical		Not delayed is the reference group
Family Support				
Type of Family Support	Family support was divided into three categories, high support, some support, and no support. High family support by parents or guardians to initial disclosure includes fulfilling all four criteria of a.) believing	Categorical		High support (2), some support (1), not supportive (0)

	<p>the child, b.) providing emotional support including encouraging the child to talk to investigators, c.) taking action to protect the child from the perpetrator, such as removing the perpetrator from the home or from accessing the child and d.) reporting the abuse.</p> <p>Some support includes some supportive action by parents or guardians, but is missing one or two of the four criteria of a highly supportive family.</p> <p>Unsupportive reaction to initial disclosure includes failing to fulfill two or more of the main criteria for a highly supportive reaction, plus did not report or seek outside assistance.</p>			
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Chapter Five: Findings

This chapter outlines the findings of this study using statistical analysis to understand which factors contribute to how children are disclosing during forensic interviews, actively or tentatively, and how these same factors predict outcomes in child protection cases in terms of services and living situations for the family. The three research questions of this study included: (1) How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?; (2) Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?; and (3) Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support? Logistic regression was used to answer the three research questions above.

The findings are outlined below, organized by each research question. Each section contains descriptive statistics related to the relevant predictor and outcome variables and cross tabulation count and frequency statistics between predictor variables used in the analyses and the outcome variables. In the logistic regression analyses, the odds ratio is representative of the estimated odds of a child or family experiencing a particular outcome (i.e. active or tentative disclosure during the forensic interview; counseling for the child; basic needs referrals for the family; child removed from the home; and safety plan implemented in the home) for children who disclosed allegations of sexual abuse during the forensic interview. These outcomes were predicted by significant child demographics (age, race/ethnicity), abuse specific factors (CSA

allegation, circumstances of initial disclosure, whether initial disclosure was delayed/not delayed, relationship of the alleged perpetrator to the child, and perpetrator threats), and level of family support (high, some, none). Those findings that are significant at the .05 alpha level and below are indicated by an asterisk in the logistic regression tables in this section along with the confidence intervals and odds ratios.

Collinearity Between Predictor Variables

Due to the number of predictor variables, a correlation matrix and Pearson product moment correlation tests were performed on all independent predictor variables to determine whether any of variables were significantly correlated with one another. Testing for collinearity should be a part of any logistic regression analysis (Menard, 2002). Independent variables included in the correlation matrix included child demographics: age, gender, race/ethnicity, and identified disability or mental health diagnosis; abuse specific factors: sexual abuse allegation, relationship of the alleged perpetrator to the child, perpetrator threat, bribes or manipulation, type of disclosure prior to the interview; and family support. The outcome variables of type of disclosure, services, and family living situations were not included in the matrix since they were assessed with each predictor variable according to the specific research question, as outlined in each section below. For a complete overview of the correlation matrix, see table 5.1.

Several of the child's demographic variables were significantly correlated with one another and with other independent variables (see table 5.1). For example, age was significantly correlated with certain groups within the categories of race/ethnicity, gender, disability or mental health diagnosis, and relationship of the alleged perpetrator to

the child. However, during the model building process, it became clear that certain variables were consistently significant, despite the inclusion of other variables they were significantly correlated with. For example, age was consistently significant in each model related to the outcome of disclosure despite its significant correlation with other predictor variables. The variables within the race/ethnicity category were also consistently significant within the various models. Consistently non-significant variables included disability and mental health diagnosis and gender. Therefore, while a number of demographic variables were significantly correlated with one another, some remained in the final models. According to Menard (2002), inclusion of correlated predictors in the same model in logistic regression is permissible, as long as they are not suppressing significance of one of the other predictors and aren't producing unusually high standard errors in the coefficients.

Some of the other independent variables, including variables within the abuse specific factors categories and family support, were also significantly correlated with one another. Significantly correlated variables included family support and relationship of the perpetrator to the child as well as CSA allegation and perpetrator threats. When predictor variables are significantly correlated with each other, this can suggest a multi co-linearity problem (Menard, 2002). In the model building process, models were built initially with all relevant variables and then in separate models. Models where predictor variable significance did not change regardless of being included in the same or separate models were included in the same final model. The predictors of family support and relationship of the perpetrator to the child were included in the same model (family

support model) and CSA allegation and perpetrator threats were included the same model (abuse specific model) for the outcome of active or tentative disclosure.

Table 5.1 Pearson Product Correlation Between All Predictor Variables

	Age	Female	Male	AA	Caucasian	Hispanic	Multi	Other Race	ADHD	DD	MH	None	Other Disability
Age	1.00	0.21**	-0.21**	-0.21	0.19**	0.12	-0.14	-0.05	0.05	0.35***	0.29***	0.42***	0.02*
Female		1.00	-1.00	-0.14	0.03	0.14	-0.09	0.11	-0.21**	0.05	0.13*	-0.02	-0.02
Male			1.00	0.14	-0.03	-0.14	0.09	-0.11	0.21**	-0.05	-0.13*	0.02	0.02
AA				1.00	-0.42	-0.28	-0.29	-0.19	-0.05	-0.08	-0.15*	0.09	0.19*
Caucasian					1.00	-0.28	-0.29	-0.19	-2.51e-20	0.09	0.23***	0.20***	-0.06
Hispanic						1.00	-0.19	-0.13	-0.10	-0.09	-0.01	0.15*	-0.12
Multi/Bi-racial							1.00	-0.13	0.15*	-0.02	-0.10	0.02	9.00e-3
Other Race								1.00	0.02	0.13	0.02	-0.04	-0.07
ADHD									1.00	-0.05	-0.11	-0.33	-0.06
DD										1.00	-0.10	-0.30	-0.05
MH Diagnosis											1.00	-0.66	-0.12
None												1.00	-0.35
Other Disability													1.00
CSA Allegation	0.09	-0.10	0.10	-0.15*	0.09	0.08	-0.10	0.13**	0.01	0.11	-0.12	0.07	-0.05
Threats	0.04	0.15*	-0.15*	0.06	-0.07	0.09	4.00e-3	-0.11	0.08	-0.06	0.09	-0.15	0.14*
No Threats	-0.04	-0.15*	0.15*	-0.06	0.07	-0.09	-4.00e-3	0.11	-0.08	0.06	-0.09	0.15*	-0.14*
Adult	0.12	0.15*	-0.15*	-0.08	0.03	0.20**	-0.13*	-4.00e-3	0.04	0.04	-4.00e-3	0.02	-0.11
Peer	-0.12	-0.15*	0.15*	0.08	-0.02	-0.20**	0.13**	4.00e-3	-0.04	-0.04	4.00e-3	-0.02	0.11
Related	-0.14*	-0.02	0.02	0.11	-0.12	-0.05	0.15*	-0.14*	-0.01	-0.15*	0.06	-0.01	0.08
Unrelated	0.14*	0.02	-0.02	-0.11	0.12	0.05	-0.15*	0.14*	0.01	0.15*	-0.06	0.01	-0.08
Verbal Disclosure	0.05	0.11	-0.11	-0.14*	0.08	-9.00e-3	0.08	0.03	-0.05	0.06	0.04	-0.05	0.03
Behavioral/Med results	-9.00e-3	0.01	-0.01	-0.04	9.00e-3	6.00e-3	0.04	-4.00e-3	0.22***	-0.05	-3.00e-3	-0.04	-0.06
Witnessed/Perp Confession	-0.05	-0.13*	0.13*	0.19*	-0.10	7.00e-3	-0.12	-0.03	-0.09	-0.03	-0.04	0.09	2.00e-3
Delayed	0.02	0.02	-0.02	-0.16*	-0.006	0.12	0.06	0.03	0.03	-0.04	0.09	-0.06	-0.02
Not delayed	-0.02	-0.02	0.02	0.16*	0.006	-0.12	-0.06	-0.03	-0.03	0.04	-0.09	0.06	0.02
Family Support	-0.03	-0.04	0.04	-0.02	0.09	-1.00e-3	-0.07	-0.01	0.08	0.08	-0.13	0.03	5.00e-3

	CSA Allegation	Threats	No Threats	Adult	Peer	Related	Unrelated	Verbal	Behavioral	Witnessed	Delayed	Not Delayed	Family Support
Age													
Female													
Male													
AA													
Caucasian													
Hispanic													
Multi/Bi-racial													
Other Race													
ADHD													
DD													
MH Diagnosis													
None													
Other Disability													
CSA Allegation	1.00												
Threats	-0.27***	1.00											
No Threats	0.27***	-1.00	1.00										
Adult	0.07	0.08	-0.08	1.00									
Peer	-0.07	-0.08	0.08	-1.00	1.00								
Related	-0.05	0.06	-0.06	-0.17*	0.17*	1.00							
Unrelated	0.05	-0.06	0.06	0.17*	-0.17*	-1.00	1.00						
Verbal Disclosure	0.02	0.05	-0.05	0.16*	-0.16*	-0.03	0.03	1.00					
Behavioral/Med results	-0.01	0.12	-0.12	-0.07	0.07	-0.04	0.04	-0.49	1.00				
Witnessed/Perp Confession	-0.01	-0.14*	0.14*	-0.13	0.13	0.06	-0.06	-0.82***	-0.11	1.00			
Delayed	-0.12	0.15	-0.15	0.12	-0.12	0.14	-0.14	-0.14	0.11	0.09	1.00		
Not delayed	0.12	-0.15	0.15	-0.12	0.12	-0.14	0.14	0.14	-0.11	-0.09	-1.00	1.00	
Family Support	0.06	-0.10	0.10	-0.11	0.11	-0.26***	0.26***	-0.02	-0.02	0.03	-0.18*	0.18*	1.00

**Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

Question 1: How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclosure sexual abuse actively or tentatively during the forensic interview?

To assess the first research question using logistic regression analyses, two final models were built. Because some significant child demographics were included in each of the subsequent predictive models to assess disclosure as control variables, a separate model was not built to assess how child demographic characteristics influence disclosure. However, within other predictive models, significant demographic variables were included in the final models and non-significant variables were not included. Across each of the models, age and race/ethnicity were significant; gender and disability or mental health diagnosis were not. Below is a table with the descriptive statistics regarding child demographic data (see Table 5.2).

Variable	M(<i>SD</i>)	n	%
Age	10.33(5.06)		
Gender			
Female		151	77.05%
Male		45	22.95%
Total		196	
Race/ethnicity			
African American		60	30.61%
Caucasian		57	29.08%
Hispanic		30	15.31%
Multi/Bi-racial		33	16.84%
Other ^a		16	8.16%
Total		196	
Identified Disability and Mental Health Diagnoses			
ADHD		10	5.10%
Developmental Disabilities		8	4.08%

Mental Health Diagnosis		33	16.84%
None		134	68.37%
Other ^b		11	5.61%
	Total	196	

a: Category of Other included African, American Indian, Asian/Pacific Islander, and Unknown

b: Category of Other included chronic medical condition, learning disability, deaf/hard of hearing, and blind/visually impaired

Overall, two thirds of children disclosed actively during the forensic interview ($n=131$), but nearly one third disclosed tentatively ($n=65$). See *Figure 5.1* below.

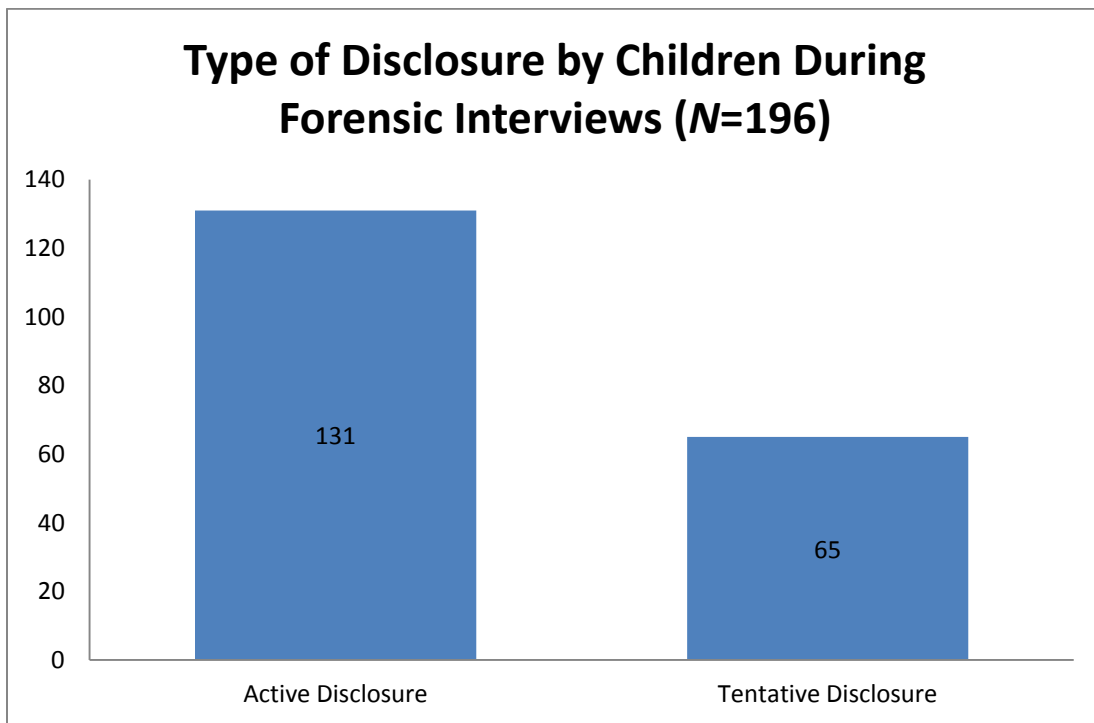


Figure 5.1. Active or tentative disclosure by children during forensic interviews

Children also varied in their rates of active and tentative disclosure, depending on the category of demographic data available. For a complete breakdown of child demographics and cross tabulation with the outcome of disclosure, see Table 5.3.

Table 5.3 <i>Crosstabs for Child Demographic Characteristics and Outcome of Disclosure</i>					
Variable	Active Disclosure		Tentative Disclosure		Total
	Count	%	Count	%	
Gender					
Female	104	79.4%	47	72.3%	151
Male	27	20.6%	18	27.7%	45
Total	131		65		
Race/ethnicity					
African American	38	29.0%	22	33.8%	60
Caucasian	43	32.8%	14	21.5%	57
Hispanic	25	19.1%	5	7.7%	30
Multi/Bi-racial	16	12.2%	17	26.2%	33
Other ^a	9	6.9%	7	10.8%	16
Total	131		65		
Identified Disability and Mental Health Diagnoses					
ADHD	5	3.8%	5	7.7%	
Developmental Disabilities	7	5.3%	1	1.5%	
Mental Health Diagnosis	23	17.6%	10	15.4%	
None	86	65.6%	48	73.8%	
Other ^b	10	7.6%	1	1.5%	
Total	131		65		

a: Category of Other included African, American Indian, Asian/Pacific Islander, and Unknown

b: Category of Other included chronic medical condition, learning disability, deaf/hard of hearing, and blind/visually impaired

Child characteristics and disclosure. Upon analysis using binary logistic regression, there were several significant findings for child demographics. The findings did not support the first hypothesis, that older children will be more likely to tentatively disclose. Rather, younger children were 0.8 times more likely to disclose tentatively (OR=0.8, CI=0.76-0.93). It should be noted that even though the findings were statistically significant for children's age and tentative disclosure, the confidence interval and odds ratio is very close to 1, suggesting that the differences may be minimal.

Findings support the third hypothesis, children who identified as African American, Hispanic, Multi/Bi-racial, or other (Asian, African, or American Indian) will be more likely to tentatively disclose. Children who identified as Multi/Bi-racial were 5.1 times more likely to disclose tentatively as compared to Caucasian children (OR=5.1, CI=1.66-17.00). The second and fourth hypotheses, that boys and children with identified disabilities or mental health diagnoses will be more likely to tentatively disclose, were not supported. The variables of gender and identified disability or mental health diagnosis were not significant in any of the models. Therefore, the findings suggest only that as children increase in age and children that were identified as Multi/Bi-racial are more likely to disclose tentatively within this sample.

Table 5.4 shows the shows the logistic regression coefficient (B), standard error (S.E.), Wald z-value, the odds ratio, the statistical significance at the 0.05, 0.01, and 0.001 levels (2-tailed) and the lower and upper limits of the 95% confidence interval for all of the predictors included in the model. Logistic regression was conducted to examine the relationship between active or tentative disclosure, when controlling for significant child demographics. The omnibus test of the model coefficients tests if there was a significant relationship between outcome and predictors for the overall model. The chi-squared statistic for the overall model is also included in the logistic regression table below, as well as the -2 Log likelihood and the Cragg and Uhler pseudo R Square values. These are rough estimates of the variance in the dependent variable that can be predicted from the combination of all the variables in the model.

Table 5.4: Logistic Regression of Tentative Disclosure and Child Characteristics

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Age	-0.17	0.05	-3.13	0.8**	0.76-0.93
Gender¹	0.11	0.40	0.28	1.1	0.50-2.45
Race/Ethnicity²					
African American	0.41	0.50	0.81	1.5	0.56-4.10
Hispanic	-0.46	0.65	-0.71	0.6	0.17-2.16
Multi-racial	1.63	0.59	2.78	5.1**	1.66-17.00
Other	0.47	0.69	0.69	1.6	0.40-6.19
Identified Disability or Mental Health Diagnosis³					
ADHD	0.75	0.74	1.02	2.1	0.49-9.39
DD	-0.92	1.24	-0.74	0.4	0.02-3.46
Mental Health Diagnosis	0.54	0.53	1.02	1.7	0.60-4.90
Other Disability	-1.46	1.12	-1.30	0.2	0.01-1.49

*p<0.05, **p<0.01

1 Reference group for Gender was Female

2 Reference group for Race/Ethnicity was Caucasian

3 Reference group for Disability or Mental Health Diagnosis was None

Circumstances of disclosure prior to the forensic interview and abuse specific factors related to active or tentative disclosure. A full predictive model was initially built to include the circumstances of previous disclosure, abuse specific factors including the CSA allegation and relationship of perpetrator to the child, perpetrator threats, and demographic control variables. Insignificant child demographic variables including identified disability or mental health diagnosis and gender were removed from the final model. Due to multi co-linearity issues identified in the Pearson product correlation tests,

the variables of sexual abuse allegation and perpetrator threats were initially included in separate models. However, despite use of separate models for CSA allegation and perpetrator threats, both CSA allegation and perpetrator threats did not significantly predict how the child disclosed during the forensic interview. Therefore, both variables remained in the same model.

Descriptive statistics for previous disclosure and abuse factors. Children most often disclosed sexual abuse allegations of fondling ($n=86$) and penetration, including digital penetration ($n=78$). Children also disclosed being abused through oral sex ($n=26$) and exposure to the alleged perpetrator's body parts or pornography ($n=6$). Due to small numbers in the exposure category, exposure was included within the exposure and fondling category ($n=92$).

Most of the alleged perpetrators identified by the children during the forensic interview were adults ($n=117$). Overall, most of the alleged perpetrators were related to the child ($n=123$) and just over a third of the alleged perpetrators were unrelated to the child ($n=73$). Of adult perpetrators, just over half were related adults ($n=65$) including fathers, step-fathers, grandfathers, and uncles. Other adult perpetrators were unrelated ($n=52$). Many of the alleged perpetrators were also peers ($n=79$), including related peers such as cousins, siblings, or step-siblings under the age of 18 ($n=58$). With the exception of one case, all children knew the alleged perpetrators prior to the abuse.

Just over half of children in the sample disclosed that they had experienced threats, bribes, or manipulation from the alleged perpetrator throughout the abuse ($n=100$).

Most children in the sample made an intentional, verbal disclosure of the alleged sexual abuse ($n=157$). Other children disclosed after concerning behaviors such as sexualized language or acting out or self-injurious behaviors such as cutting or suicide attempts, prompted further inquiry and investigation by adults ($n=9$). Many children did not intentionally disclose the sexual abuse, but the abuse was reported by an individual when it was witnessed ($n=20$), the alleged perpetrator made a confession ($n=7$), or results of a medical exam, such as the presence of a sexually transmitted disease or pregnancy, prompted the report ($n=3$).

Most children in the sample delayed initial disclosure of the sexual abuse allegation by a week or several years ($n=152$). However, some children in the sample disclosed the sexual abuse allegation immediately ($n=29$), from a few minutes after the abuse occurred up to six days after the abuse occurred. For a full list of descriptive statistics of abuse related factors, including count data and percentages, see Table. 5.5 below.

Table 5.5 <i>Descriptive Statistics for Abuse Related Factors</i>		
Variable	n	%
Type of Alleged Sexual Abuse Allegation		
Exposure and Fondling	92	46.93%
Oral	26	13.27%
Penetration	78	39.80%
Total	196	
Age of Alleged Perpetrator		
Adult	117	59.70%
Peer	79	40.30%
Total	196	
Relationship Alleged Perpetrator to Child		

Related	123	62.76%
Unrelated	73	37.24%
Total	196	
Perpetrator Threats, Bribes, or Manipulation		
Yes	100	51.55%
No	94	48.45%
Total ^a	194	
Circumstances of Initial Disclosure		
Verbal	157	80.10%
Behavioral or Medical Exam Results	12	6.12%
Witnessed or Perpetrator Confession	27	13.78%
Total	196	
Delayed or Not Delayed Initial Disclosure		
Delayed	152	83.98%
Not Delayed	29	16.02%
Total ^b	181	

a: Total for perpetrator threats, bribes or manipulation where data was available. There were 2 cases with no information on whether the child experienced perpetrator threats.

b: Total for delayed or not delayed initial disclosure includes cases only where data was available. There were 15 cases with no information on timing of initial disclosure.

Children also varied in their rates of active and tentative disclosure, depending on the category of abuse specific data available. For a complete breakdown of abuse specific factors and cross tabulation with the outcome of disclosure, see Table 5.6 below.

Variable	Active Disclosure		Tentative Disclosure		Total
	Count	%	Count	%	
Type of Alleged Sexual Abuse Allegation					
Exposure or Fondling	67	51.1%	25	38.4%	86
Oral	17	13.0%	9	13.8%	26
Penetration	47	35.9%	31	47.7%	78
Total	131		65		
Age of Alleged Perpetrator					
Adult	75	57.3%	42	64.6%	117

Peer	56	42.7%	23	35.4%	79
Total	131		65		
Relationship Alleged Perpetrator to Child					
Related	83	63.4%	40	61.5%	123
Unrelated	48	36.6%	25	38.5%	73
Total	131		65		
Perpetrator Threats, Bribes, or Manipulation					
Yes	67	51.1%	33	52.4%	100
No	64	48.9%	30	47.6%	94
Total ^a	131		63		
Circumstances of Initial Disclosure					
Verbal	110	84.0%	47	72.3%	157
Witnessed or Perpetrator Confession	13	10.7%	13	20.0%	26
Behavioral or Medical Exam Results	7	5.3%	5	7.7%	12
Total	131		65		
Delayed or Not Delayed Initial Disclosure					
Delayed	99	81.1%	53	89.8%	152
Not Delayed	23	18.9%	6	10.2%	29
Total ^b	122		59		

a: Total for perpetrator threats, bribes or manipulation where data was available. There were 2 cases with no information on whether the child experienced perpetrator threats.

b: Total for delayed or not delayed initial disclosure includes cases only where data was available. There were 15 cases with no information on timing of initial disclosure.

Abuse specific factors and disclosure. Upon analysis using binary logistic regression, significant findings were within the categories of circumstances of previous disclosure and relationship of perpetrator to the child. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors and the outcome of tentative disclosure ($\chi^2 = 32.8$, $df = 10$, $p < 0.001$). Findings support the fifth hypothesis for the first research question that children who did not disclose verbally prior to the forensic interview will be more likely to tentatively disclose. When compared to children who made a verbal disclosure, circumstances where the abuse was

witnessed or reported after a perpetrator confession were 3.1 times as likely to tentatively disclose (OR=3.1, CI=1.20-8.19). Findings also support the eighth hypothesis that children who were abused by an adult will be more likely to tentatively disclose. When the alleged perpetrator was an adult, children were 2.4 times more likely to tentatively disclose as compared to when the abuser was a peer , or 0.4 times less likely to tentatively disclose (OR=0.4, CI=0.20-0.85). Hypotheses six, that children who experienced more severe abuse will be more likely to tentatively disclose and hypothesis seven, children who received threats, bribes or manipulation from the perpetrator will be more likely to tentatively disclose, were both rejected. Sexual abuse allegation type and perpetrator threats did not significantly predict whether a child would tentatively disclose. The logistic regression table (Table 5.7) includes the same reported information as the models above in reporting the results of the first question.

Table 5.7: Logistic Regression of Tentative Disclosure and Abuse Specific Factors

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Sexual Abuse Allegation	0.29	0.19	1.53	1.3	0.92-1.94
Circumstances of Previous Disclosure¹					
Behavioral or Results of Medical Exam	0.66	0.68	0.97	1.9	0.48-7.25
Witnessed or Perpetrator Confession	1.13	0.49	2.33	3.1*	1.20-8.19
Relationship of Alleged Perpetrator to					

Child²					
Peer	-0.87	0.37	-2.34	0.4*	0.20-0.85
Perpetrator Threats³	0.14	0.37	0.39	1.2	0.56-2.39
χ^2 32.8 -2LL: -105.89 Cragg and Uhler R Square: 0.24					

*p<0.05

1 Reference group for Circumstances of Previous Disclosure was Verbal Disclosure

2 Reference group for Relationship of Alleged Perpetrator to Child was Adult

3 Reference group for Perpetrator Threats was No threats

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for this model was 0.65. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the overall power for this model is lower than the recommended power of 0.80 in statistical analysis.

Family support and disclosure. Two thirds of children in the sample have families who demonstrated highly supportive behavior and actions throughout the initial disclosure and investigative process (n=127). A small group of families offered some support (n=25) and nearly a fourth of families were not supportive (n=42). See *Figure 5.2*.

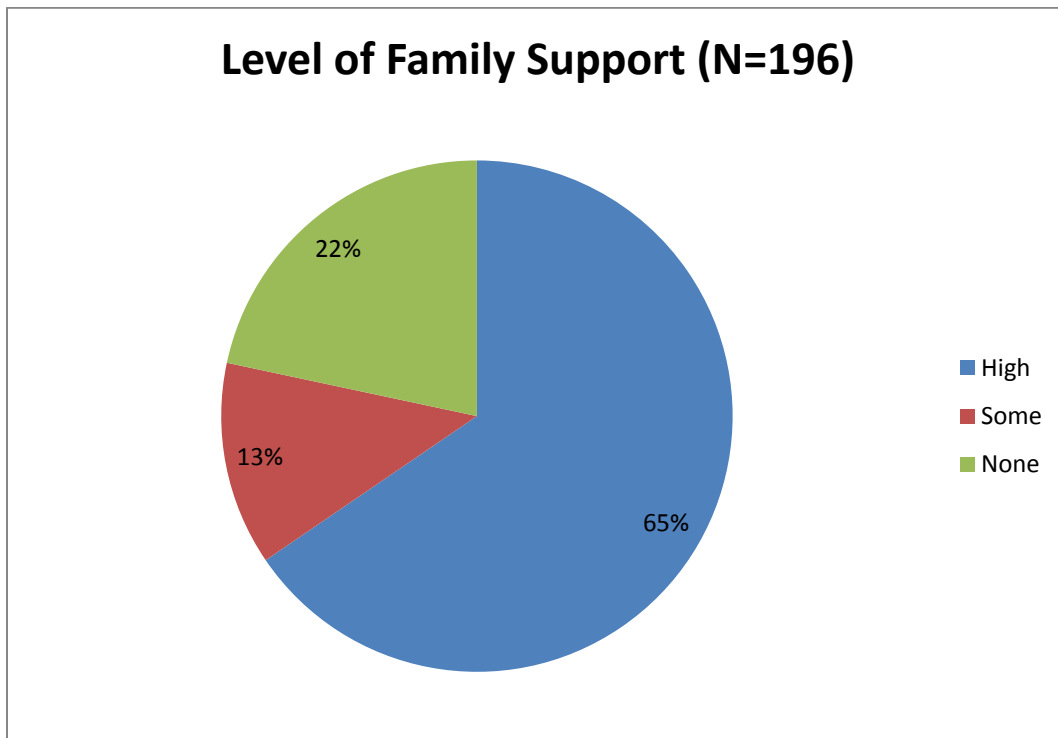


Figure 5.2. Level of Family Support: High, Some or None by Percentage for Total Sample (N=196).

Children also varied in their rates of active and tentative disclosure, depending on the level of family support. For a complete breakdown of the level of family support and cross tabulation with the outcome of disclosure, see Table 5.8.

Variable	Active Disclosure		Tentative Disclosure		Total
	Count	%	Count	%	
Level of Family Support					
High	88	67.2%	39	61.9%	127
Some	20	15.3%	5	7.9%	25
None	23	17.6%	19	30.2%	42
Total ^a	131		63		

a: Total for level of family support where data was available. There were 2 cases with no information on the level of family support.

To assess family support and disclosure, an initial full model was built controlling for all child demographic characteristics, with non-significant variables removed from the final model. Despite the significant correlation between the variables of family support and relationship of the perpetrator to the child (related or unrelated) remained in the model since they were both significant and previous research has shown that children may experience decreased family support if the alleged perpetrator is related to the child (Somer & Szwarcberg, 2001). Whether initial disclosure was delayed or not was also included in the final model due to its relationship with children being more likely to disclose immediately if they anticipate family support, especially in the context of a forensic interview (Hershkowitz, et al., 2007).

Upon analysis using binary logistic regression, there were several significant findings within the family support model. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors and the outcome of tentative disclosure ($\chi^2 = 43.50, df = 11, p < 0.001$). Findings support the tenth hypothesis that children with non-supportive families will be more likely to tentatively disclose. Children with non-supportive families were 3.6 times more likely to disclose tentatively during the forensic interviews (OR=3.6, CI=1.25-10.99). Children with somewhat supportive families were not significantly more or less likely to disclose tentatively. Findings did not support the ninth hypothesis, that children who were related to the alleged perpetrator will disclose more tentatively. Interestingly, the findings showed just the opposite. Children who were unrelated to the perpetrator were 3.6 times more likely to disclose tentatively as compared to children who were related to the

perpetrator (OR=3.6, 1.39-9.77). Finally, findings support the hypothesis that children who delayed disclosure prior to the forensic interview will be more likely to tentatively disclose. In this study, children were 6.6 times more likely to tentatively disclose during the forensic interview as compared to children who initially disclosed immediately prior to the forensic interview (OR=6.6, CI=1.91-31.59). The logistic regression table (Table 5.9) includes the same reported information as the models above in reporting the results of the first question.

Table 5.9: Logistic Regression of Family Support and Tentative Disclosure

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Level of Family Support¹					
Some	-0.41	0.73	-0.57	0.7	0.14-2.58
None	1.29	0.55	2.34	3.6*	1.25-10.99
Relationship of Perpetrator to Child²					
Unrelated	1.28	0.50	2.58	3.6**	1.39-9.77
Delayed disclosure prior to the Forensic Interview³					
Delayed	1.89	0.70	2.70	6.6**	1.91-31.59
χ^2 43.50 -2LL -89.04 Cragg and Uhler R Square 0.43					

*p<0.05, **p<0.01

1 Reference group for Level of Family Support was High

2 Reference group for Relationship of Perpetrator to Child was Related

3 Reference group for Delayed Disclosure prior to the Forensic Interview was Not Delayed

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for this model was 0.99. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the

overall power for this model satisfied the recommended power of 0.80 in statistical analysis.

Question 2: Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?

To assess the second research question, two models were built using binary logistic regression. The odds ratio represents the estimated odds for two outcomes: whether the child received counseling and whether the child's family received referrals for basic needs. The first outcome was the estimated odds of a child receiving counseling based on significant predictor variables including child demographic characteristics, abuse specific factors, and level of family support. The second outcome includes the estimated odds of whether the child's family received referrals for basic needs (i.e. food, financial assistance, medical, housing) predicted by significant predictor variables including child demographic characteristics, abuse specific factors, and level of family support.

Children receiving counseling. Of the total number of available case outcomes for counseling for the child (N=139), children who received counseling ($n=35$) comprised 25% of the sample and children who didn't receive counseling ($n=104$).

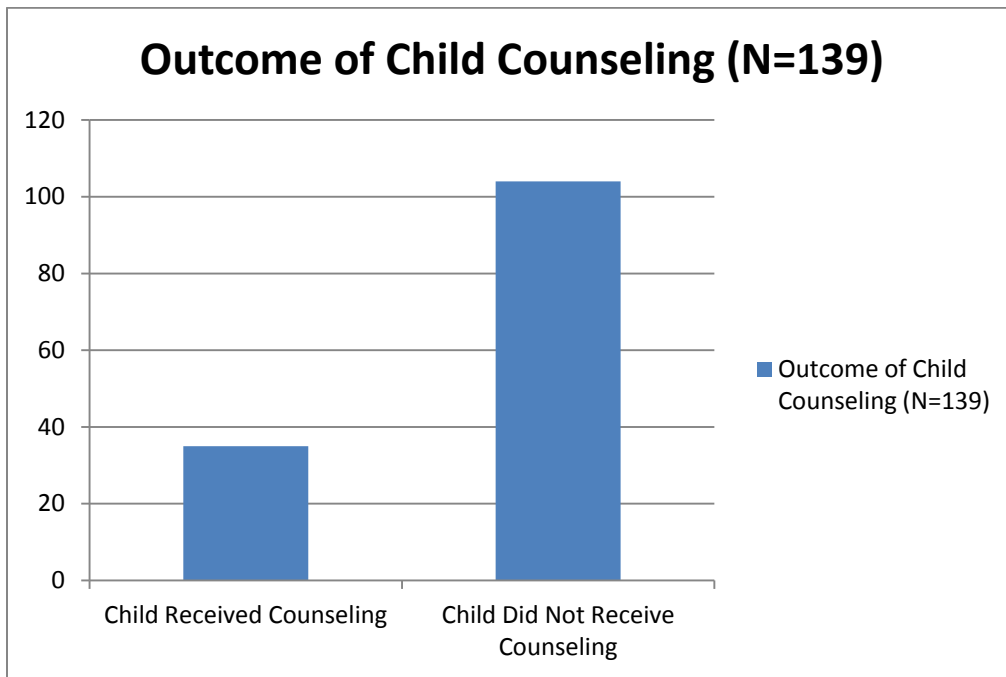


Figure 5.3. Outcome of Child Counseling by counts in total available cases (N=139).

Child demographics and counseling for the child. A full model was initially built to include all demographic variables including the child’s age, race/ethnicity, identified disability or mental health diagnosis, and gender and predictors of interest in each of the four hypotheses. However, none of the demographic variables were significant and therefore were not included in the final model. For a complete breakdown of each of the predictor variables included in the final models, and cross tabulation within the outcome of child counseling, see Table 5.10.

Variable	Child Received Counseling		Child Did Not Receive Counseling		Total
	Count	%	Count	%	
Type of Alleged Sexual Abuse Allegation					
Exposure or Fondling ^a	11	31.5%	52	50.0%	63
Oral	4	11.4%	15	14.4%	19

Penetration	20	57.1%	37	35.6%	57
Total	35		104		
Relationship Alleged Perpetrator to Child					
Related	29	82.9%	61	58.7%	90
Unrelated	6	17.1%	43	41.3%	49
Total	35		104		
Perpetrator Threats, Bribes, or Manipulation					
Yes	23	69.7%	48	46.2%	71
No	10	30.3%	56	53.8%	66
Total ^c	33		104		
Level of Family Support					
High	14	41.2%	70	67.3%	84
Some	1	2.9%	18	17.3%	19
None	19	55.9%	16	15.4%	35
Total ^c	34		104		

a: Categories of exposure and fondling were combined due to small numbers in the exposure category.

b: Total for perpetrator threats, bribes or manipulation where data was available. There were 2 cases with no information on whether the child experienced perpetrator threats.

c: Total for level of family support where data was available. There was 1 case with no information on the level of family support.

Abuse specific factors, family support, and counseling for the child. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors and the outcome of child counseling ($\chi^2 = 32.49$, $df = 4$, $p < 0.001$). Findings support the first hypothesis for the second research question, that children who have experienced more severe abuse will be more likely to receive counseling. Children who had experienced more severe abuse, such as penetration, were 1.8 times more likely to receive counseling than children who experienced a less severe form of abuse such as exposure or fondling (OR=1.8, CI=1.16-3.05). Findings also supported the hypothesis that children with unsupportive families will be more likely to receive counseling. Children who had unsupportive families were 5.9 times more likely to receive counseling

as compared to children with highly supportive families (OR=5.9, CI=2.33-15.73). The Hypotheses, children who are related to the perpetrator will be more likely to receive counseling and children who experienced perpetrator bribes, threats, or manipulation will be more likely to receive counseling, were not supported by the findings. Neither of these factors was significant in the analysis. The logistic regression table (Table 5.11) includes the same reported information as the models above in reporting the results of the first question.

Table 5.11: Logistic Regression of Child Receiving Counseling as Outcome

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Relationship of Perpetrator to Child¹					
Related	1.03	0.53	1.95	2.8	1.04-8.53
Level of Family Support²					
Some	-1.30	1.08	-1.20	0.3	0.01-1.57
None	1.77	0.48	3.66	5.9***	2.33-15.73
Sexual Abuse Allegation	0.61	0.24	2.50	1.8**	1.16-3.05
χ^2 32.49 -2LL -60.80 Cragg and Uhler R Square 0.33					

*p<0.05, **p<0.01, ***p<0.001

1 Reference group for relationship of perpetrator to child was Unrelated.

2 Reference group for level of family support was High.

3 No threats was the reference group.

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for this model was 0.89. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the overall power for this model satisfies the recommended power of 0.80 in statistical analysis.

Total referrals for basic needs. Of the total number of available case outcomes for referrals for basic needs (N=139), nearly a quarter of families in the total sample received referrals for basic needs ($n=32$), and just over 77% did not receive referrals ($n=108$).

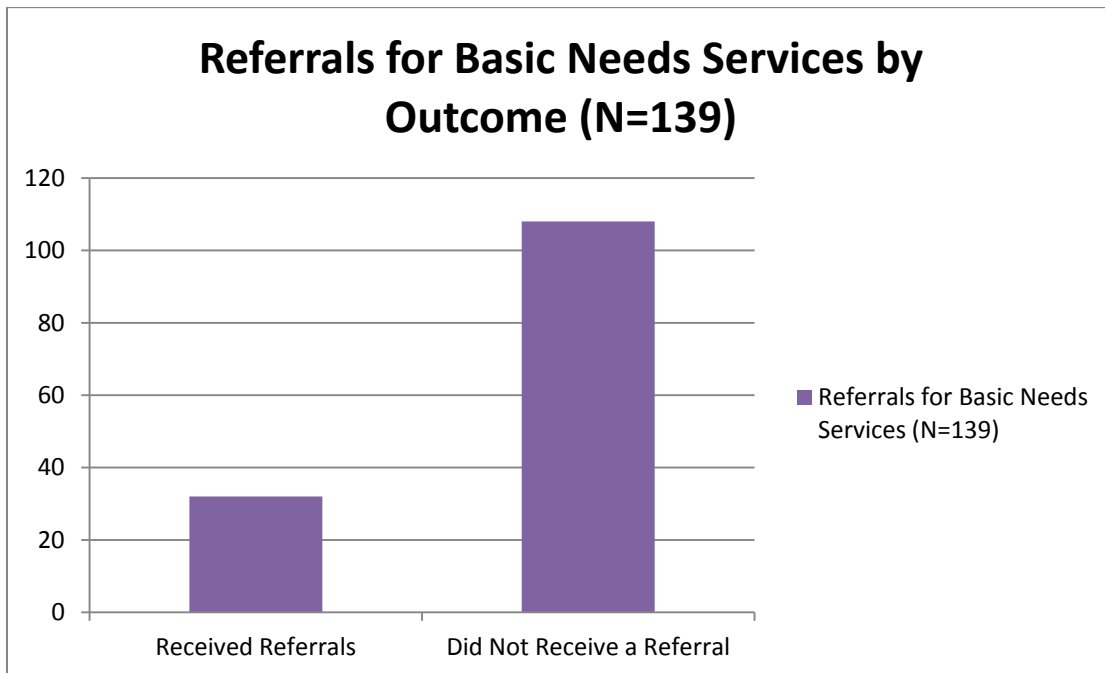


Figure 5.4. Outcome of referrals for basic needs services to the family by counts in total available cases (N=139).

Child demographics and referrals for basic needs. The hypotheses for the outcome of referrals for basic needs were the same as for counseling for the child. A full model was built to include all demographic variables including the child's age, race/ethnicity, identified disability or mental health diagnosis, and gender, along with significant predictor variables included in the hypotheses. However, just like the outcome for child counseling, none of the demographic variables were significant, therefore they were not included in the final model. For a complete breakdown of each

of the predictor variables included in the final models, and cross tabulation within the outcome of referrals for basic needs for the family, see Table 5.12.

Variable	Family Received Referrals for Basic Needs		Family Did Not Receive Referrals for Basic Needs		Total
	Count	%	Count	%	
Type of Alleged Sexual Abuse Allegation					
Exposure or Fondling ^a	9	28.1%	55	50.9%	64
Oral	4	12.5%	15	13.9%	19
Penetration	19	59.4%	38	35.2%	57
Total	32		108		
Relationship Alleged Perpetrator to Child					
Related	27	84.4%	62	57.4%	89
Unrelated	5	15.6%	46	42.6%	51
Total	32		108		
Perpetrator Threats, Bribes, or Manipulation					
Yes	23	71.9%	49	46.2%	72
No	9	28.1%	57	53.8%	66
Total ^b	32		106		
Level of Family Support					
High	14	43.8%	71	66.4%	85
Some	1	3.1%	18	16.8%	19
None	17	53.1%	18	16.8%	35
Total ^c	32		107		

a: Categories of exposure and fondling were combined due to small numbers in the exposure category.

b: Total for perpetrator threats, bribes or manipulation where data was available. There were 2 cases with no information on whether the child experienced perpetrator threats.

c: Total for level of family support where data was available. There was 1 case with no information on the level of family support.

Abuse specific factors, family support, and referrals for basic needs. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors and the outcome of basic needs referrals to the family ($\chi^2 = 31.62$,

$df = 5, p < 0.001$). Findings support the hypothesis that children who have experienced more severe abuse will be more likely to receive referrals for basic needs services. Families whose children had experienced more severe abuse, such as penetration, were 1.9 times more likely to receive referrals for basic needs than children who experienced less severe forms of abuse such as exposure or fondling (OR=1.9, CI=1.17-3.11). Findings did support the hypothesis that children who were related to the perpetrator will be more likely to receive referrals for basic needs services. Children who were related to the perpetrator were 4.9 times more likely to receive referrals for basic needs as compared to children who were abused by someone related to them (OR=4.9, CI=1.64-18.18). Findings also support the hypothesis that children with unsupportive families will be more likely to receive referrals for basic needs services. Unsupportive families were 4.4 times more likely to receive referrals for basic needs as compared to highly supportive families (OR=4.4, CI=1.73-11.89). Similar to the findings related to the outcome of children receiving counseling, perpetrator threats were not significant and therefore did not support the hypothesis that children who experienced perpetrator threats, bribes and manipulation would be more likely to receive referrals for basic needs services. The logistic regression table (Table 5.13) includes the same reported information as the models above in reporting the results of the first question.

Table 5.13: Logistic Regression of Families Receiving Basic Needs Referrals as the Outcome

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Relationship of Perpetrator to Child¹					
Related	1.58	0.60	2.63	4.9**	1.64-18.18
Level of Family Support²					

Some	-1.32	1.09	-1.22	0.3	0.01-1.56
None				4.4**	1.73-11.89
Sexual Abuse Allegation	0.62	0.25	2.51	1.9**	1.17-3.11
Perpetrator Threats³	0.93	.048	1.95	2.54	1.02-6.78
χ^2 31.62 -2LL -58.92 Cragg and Uhler R Square 0.31					

*p<0.05, **p<0.01

1 Reference group for relationship of perpetrator to child was Unrelated.

2 Reference group for level of family support was High.

3 No threats was the reference group.

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for this model was 0.81. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the overall power for this model satisfies the recommended power of 0.80 in statistical analysis.

Question 3: Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support?

To assess the third research question, separate models were built using binary logistic regression for each outcome. The odds ratio represents the estimated odds for two outcomes: whether the child was removed from the home and whether a safety plan was implemented in the home where the child resides. The first outcome was the estimated odds of a child being removed from the home based on significant predictor variables including child demographic characteristics, abuse specific factors, and level of family support. For this outcome, two models were built due to multi co-linearity issues between the predictors of level of family support and relationship to the alleged perpetrator and the outcome of child placement. The second outcome includes the

estimated odds of whether a safety plan was implemented in the home predicted by significant predictor variables including child demographic characteristics, abuse specific factors, and level of family support.

Total children placed out of the home. Of the total number of available case outcomes for child placement (N=139), children who were removed from the home ($n=25$) comprised 18% of the sample and children who remained in the home made up the remaining 82% ($n=114$).

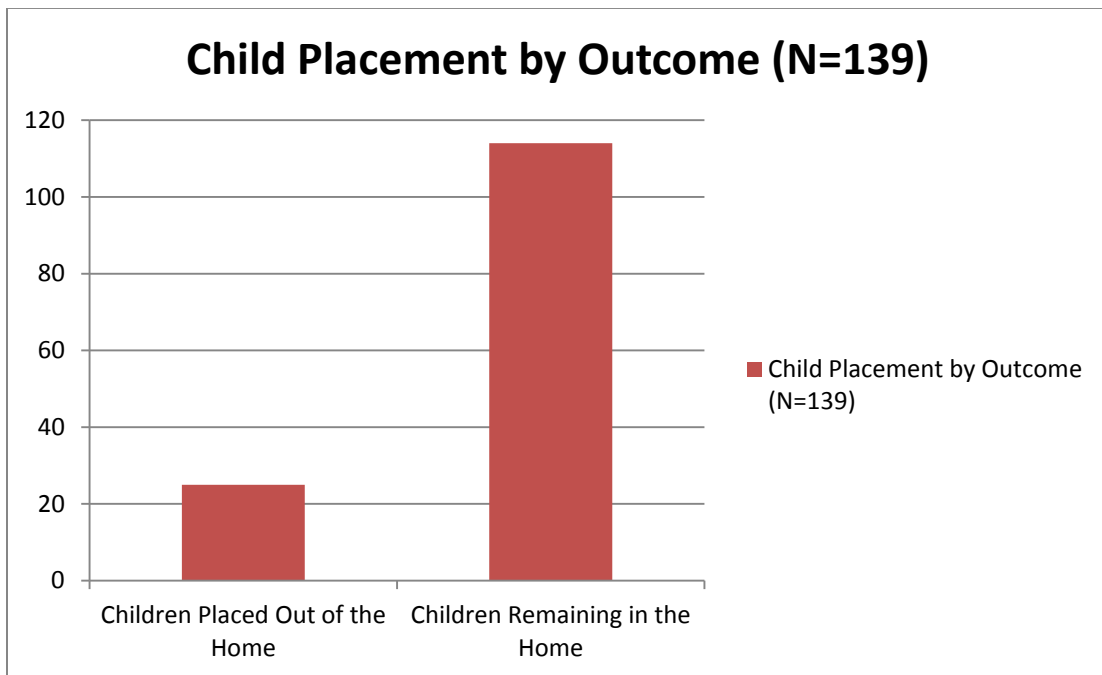


Figure 5.5. Outcome of child placement by outcome in total available cases (N=139).

For a complete breakdown of each of the predictor variables included in the final models, and cross tabulation within the outcome of child placement, see Table 5.14.

Table 5.14 <i>Crosstabs for Child Demographics, Abuse Specific Factors, Family Support and Outcome of Child Placement</i>					
Variable	Child Placed Out of the Home		Child Remained in the Home		Total
	Count	%	Count	%	
Race/ethnicity					
African American	12	48.0%	34	29.8%	46
Caucasian	2	8.0%	35	30.7%	37
Hispanic	4	16.0%	19	16.7%	23
Multi/Bi-racial	6	24.0%	17	14.9%	23
Other ^a	1	4.0%	9	7.9%	10
Total	25		114		
Type of Alleged Sexual Abuse Allegation					
Exposure or Fondling ^b	13	52.0%	50	43.8%	66
Oral	2	8.0%	17	14.9%	19
Penetration	10	40%	47	41.2%	57
Total	25		114		
Relationship Alleged Perpetrator to Child					
Related	21	84.0%	69	60.5%	90
Unrelated	4	16.0%	45	39.5%	49
Total	25		114		
Level of Family Support					
High	9	37.5%	75	65.8%	84
Some	2	8.3%	17	14.9%	19
None	13	54.2%	22	19.3%	35
Total ^c	24		114		

a: Category of Other included African, American Indian, Asian/Pacific Islander, and Unknown

b: Categories for exposure and fondling were combined due to small numbers in the exposure category.

e: Total for level of family support where data was available. There was 1 case with no information on the level of family support.

Children placed out of the home. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors of the child's race/ethnicity and level of family support and the outcome of child placement ($\chi^2 = 19.34, df = 6, p < 0.001$) and the predictors of the child's race/ethnicity and relationship

to the alleged perpetrator ($\chi^2 = 13.50, df = 6, p < 0.001$). These predictors were included in separate models, controlling for significant child demographic factors, due to multi collinearity issues which were masking significance when included in the same model. The findings support the hypothesis that children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to be removed from the home. African American children were 6.0 times more likely to be removed from the home (OR=6.0, CI=1.39-42.13) and Multi/Bi-racial children were 5.7 times more likely to be removed from the home as compared to Caucasian children (OR=5.7, CI=1.09-43.75). Findings also support the hypothesis that children with unsupportive families would be more likely to be removed from the home. Children who had unsupportive families were 5.2 times more likely to be removed from the home as compared to children with highly supportive families (OR=5.2, CI=1.89-15.33). Findings also support the hypothesis that children who are related to the alleged perpetrator are more likely to be removed from the home. In a separate model controlling for the significant factors of the child's race/ethnicity, children who were related to the alleged perpetrator were 3.4 times more likely to be removed from the home as compared to children abused by non-relatives (OR=3.4, CI=1.12-13.07). The hypothesis that children who have experienced more severe abuse will be more likely to be removed from the home was not supported by the findings. The logistic regression table (Table 5.15) includes the same reported information as the models above in reporting the results of the first question. It is important to note, in this analysis, that due to small numbers within some of the categories for this particular outcome, these findings should be

interpreted with caution and with limitations in mind. More regarding limitations and findings will be covered in Chapter 6.

Table 5.15 Logistic Regression of Child Placed Out of Home as the Outcome

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Child's Race/Ethnicity¹					
African American	1.78	0.82	2.18	6.0*	1.39-42.13
Hispanic	1.46	0.93	1.57	4.3	0.75-34.11
Multi	1.65	0.88	1.88	5.7*	1.09-43.75
Other	0.64	1.30	0.49	1.9	0.08-22,74
Level of Family Support²					
Some	-0.13	0.84	-0.15	0.9	0.12-3.95
None	1.66	0.53	3.13	5.2*	1.89-15.33
χ^2 19.35 -2LL -54.09 Cragg and Uhler R Square 0.25					
Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Relationship of Alleged Perpetrator to Child³					
Related ⁴	1.23	0.61	2.01	3.4*	1.12-13.07
χ^2 13.50 -2LL -58.74 Cragg and Uhler R Square 0.15					

*p<0.05, **p<0.01, ***p<0.001

1 Reference group for child race/ethnicity was Caucasian.

2 Reference group for level of family support was High.

3 Separate model, controlling for child's race/ethnicity

4 Reference group for relationship to alleged perpetrator was Unrelated.

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for the model with the predictors of level of family support was 0.59. The achieved power for the relationship to the alleged perpetrator was 0.21. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the overall power for each of these models is inadequate and

therefore do not satisfy the recommended power of 0.80 in statistical analysis. As a result, findings should be considered exploratory.

Total safety plan implementation in the home. Of the total number of available case outcomes for implementation of a safety plan (N=139), nearly half of all cases had a safety plan implemented within the home ($n=68$).

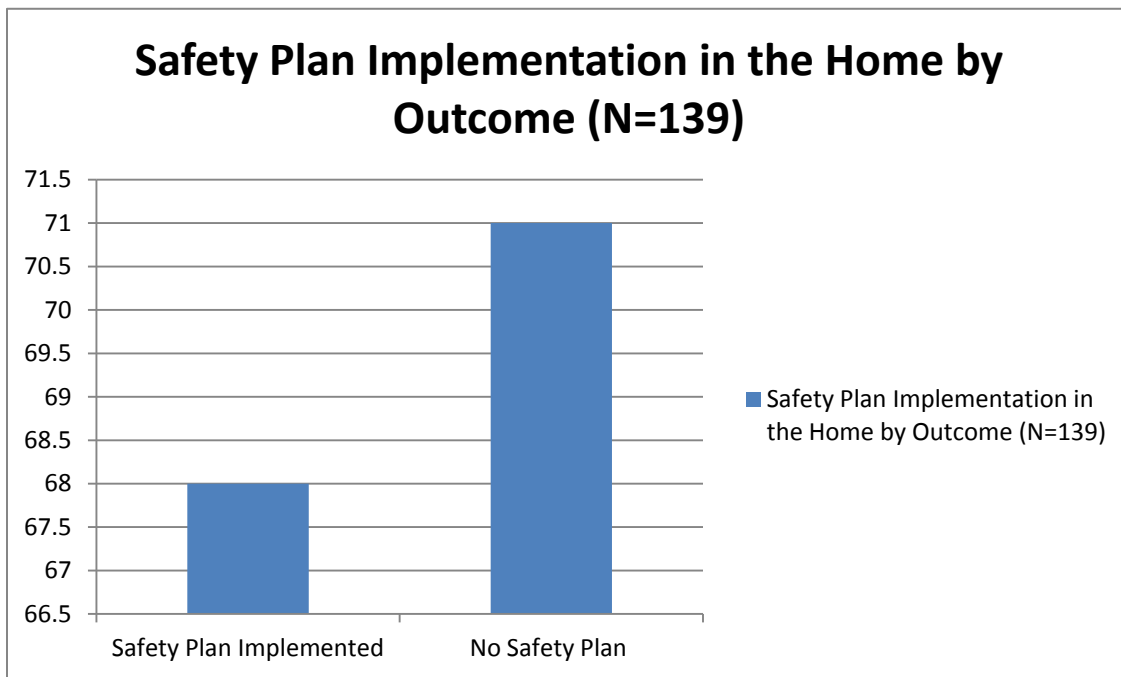


Figure 5.6. Outcome of safety plan implementation by outcome in total available cases (N=139).

For a complete breakdown of each of the predictor variables included in the final models, and cross tabulation within the outcome of safety plan implementation, see Table 5.16.

Table 5.16 <i>Crosstabs for Child Demographics, Abuse Specific Factors, Family Support and Outcome of Safety Plan Implementation</i>					
Variable	Safety Plan Implemented in the Home		No Safety Plan		Total
	Count	%	Count	%	
Race/ethnicity					
African American	18	26.5%	26	38.8%	44
Caucasian	17	25.0%	20	29.9%	37
Hispanic	14	20.6%	8	11.9%	22
Multi/Bi-racial	15	22.1%	8	11.9%	23
Other ^a	4	5.9%	5	7.5%	9
Total	68		67		
Type of Alleged Sexual Abuse Allegation					
Exposure and Fondling	24	35.3%	36	53.8%	60
Oral	10	14.7%	9	13.4%	19
Penetration	34	50.0%	22	32.8%	56
Total	68		67		
Relationship Alleged Perpetrator to Child					
Related	56	82.4%	33	49.3%	89
Unrelated	12	17.6%	34	50.7%	46
Total	68		67		
Level of Family Support					
High	39	57.4%	42	63.6%	81
Some	6	8.8%	12	18.2%	18
None	23	33.8%	12	18.2%	35
Total ^b	68		66		

a: Category of Other included African, American Indian, Asian/Pacific Islander, and Unknown

b: Total for level of family support where data was available. There was 1 case with no information on the level of family support.

Child demographics and safety plan implemented in the home. Overall, results of the logistic regression analyses show that there was a significant relationship between the predictors and the outcome of safety plan implementation in the home ($\chi^2 = 43.62$, $df = 8$, $p < 0.001$). Findings do not support the hypothesis that younger children will be more likely to have a safety plan implemented in the home. In fact, it shows the

opposite. As children increased in age (by year), children who made sexual abuse allegations were 1.1 times more likely to have a safety plan implemented in the home (OR=1.1, CI=1.00-1.22). However, it is important to note that in this finding, both the odds ratio and confidence interval are close to 1 and while significant in the model, it may not be that the odds of older children having a safety plan implemented are not that much more likely than younger children. Findings support the hypothesis that children who identify as African American, Hispanic, Multi/bi-racial, or other (Asian, African Immigrant, or American Indian) will be more likely to have a safety plan put into place. Children who identified as Hispanic were 4.4 times more likely to have a safety plan implemented as compared to Caucasian children (OR=4.4, 1.21-17.56).

Abuse specific factors, family support, and safety plan implementation in the home. Some abuse specific factors were significant in predicting whether a safety plan would be implemented in the home. Findings support the hypothesis that children who experienced more severe abuse will be more likely to have a safety plan put into place. When the sexual abuse allegation was more severe (i.e. penetration), it was 2.0 times more likely that a safety plan was implemented within the home (OR=2.0, CI=1.31-3.12). Findings also support the third hypothesis, that children who are related to the perpetrator will be more likely to have a safety plan put into place. If the alleged perpetrator was related to the child, it was 10.1 times more likely that a safety plan was implemented (OR=10.1, CI=3.90-29.77). Findings did not support the hypothesis that children with unsupportive families will be more likely to have a safety plan implemented in the home.

The logistic regression table (Table 5.17) includes the same reported information as the models above in reporting the results of the first question.

Table 5.17: Logistic Regression of Safety Plan Implemented as the Outcome

Variables	B	S.E.	Wald	Odds Ratio	95% Confidence Interval
Child's Age	0.10	0.05	1.96	1.1*	1.00-1.22
Child's Race/Ethnicity¹					
African American	-0.55	0.53	-1.04	0.6	0.20-1.62
Hispanic	1.47	0.68	2.17	4.4*	1.21-17.56
Multi	0.75	0.64	1.18	2.1	0.62-7.64
Other	1.29	0.87	1.48	3.6	0.64-20.60
Sexual Abuse Allegation	0.69	0.22	3.09	2.0**	1.31-3.12
Relationship Perpetrator to Child²					
Related	2.31	0.51	4.49	10.1***	3.90-29.77
χ^2 43.62 -2LL -74.51 Cragg and Uhler R Square 0.36					

*p<0.05, **p<0.01, ***p<0.001

1 Reference group for child's race/ethnicity was Caucasian.

2 Reference group for relationship of perpetrator to child was Unrelated.

Achieved power. A post-hoc power analysis using G*Power showed that the achieved power for this model was 0.88. The post-hoc power analysis accounted for the overall sample size, the effect size, and degrees of freedom. This indicates that the overall power for this model satisfies the recommended power of 0.80 in statistical analysis.

Summary of Findings

This chapter outlined the findings designed to answer the three research questions: (1) How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?; (2) Are family service outcomes in child protection cases

predicted by child characteristics, abuse specific factors, and family support?; and (3) Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support? Logistic regression was used to analyze the findings presented in this chapter.

The overall findings on how child characteristics, abuse specific factors, and family support influence disclosure during forensic interviews was mixed. In this study, only child characteristics of age and race/ethnicity were significant. Furthermore, only a few of the abuse specific factors were significant: circumstances of initial disclosure and relationship of perpetrator to the child. Family support, however, was significant in predicting whether children would tentatively disclose.

Child demographic characteristics were not significant in predicting services, such as child counseling and basic needs referrals. However, a more severe sexual abuse allegation, relationship of perpetrator to the child, and level of family support were significant factors in predicting whether a child and family would receive services. Child demographics were, however, significant in predicting family living situation outcomes, including whether the child was removed from the home or if a safety plan was implemented in the home. The child's age was a significant factor, although only for the outcome of safety plan implementation, and the child's race/ethnicity was significant in both child placement and safety plan implementation. As was noted in the discussion of the findings section above, since the odds ratio for the child's age was so close to 1, it should be interpreted as having a very small effect and minimally significant for this outcome. Also significant were the factors of relationship of perpetrator to the child and

sexual abuse allegation, but only for the outcome of safety plan implementation.

Interestingly, family support was a significant factor in child placement, but not in safety plan implementation.

It is important to point out that in this section, while some findings were significant, the effect size was small to medium for some of the outcomes. This was especially true for some of the child protection case outcomes. While in logistic regression, and in social science research in general, effect sizes are generally lower, it is important to consider when reviewing the findings. However, while amount of variance was relatively small for some of these outcomes, it does raise important questions to consider for future research. In addition, especially within the child protection case outcomes of child counseling, basic needs referrals, and child placement, some of the numbers within each of the predictor variable categories were small. In addition, the achieved power was satisfactory for most models (above 0.80), there were some where it was below the recommended power. Both small numbers in some categories and low achieved power was especially true for the outcome of child placement. Therefore, there were significant findings for the outcome of child placement, they would be interpreted cautiously and treated as exploratory findings due to the limitations in numbers. This will be addressed more in-depth within the following chapter in the Limitations section.

The next chapter will provide an in-depth discussion on how the findings relate to the overall body of research on child sexual abuse disclosure and services to children who have been sexually abused. The findings will also be tied back to the theoretical

frameworks that informed this study. Implications for practice and policy, along with limitations and directions for future research will be discussed.

Chapter Six: Discussion

This chapter offers an interpretation and discussion each of the study's findings. Included in the discussion are both significant and non-significant findings in relation to the existing literature on child sexual abuse disclosure and services in child protection cases and within the context of the theoretical and conceptual frameworks used to guide this study. First, an outline of the findings related to the disclosure during the forensic interviews is provided. Next, a discussion of the findings related to services offered to the child and family through child protection services and how these findings relate to previous research is offered. Finally, an examination of the findings related to family living situations, child removal and safety plan implementation, and how the findings relate to previous studies is provided. Within each of these sections, a discussion of the findings related to the relevant theoretical frameworks is included. The final section of this chapter is a discussion of the study's limitations.

Disclosure During Forensic Interviews

This section provides a discussion and interpretation of the findings related to how the children disclosed during the forensic interviews, either actively or tentatively. Findings are discussed within the context of the conceptual framework used to guide this study, which was a combination of the three theoretical frameworks previously discussed (see Chapter 2). Like the conceptual framework, findings are organized by grouped factors. Within the framework, each of these factors was hypothesized to be related to the type of disclosure during the forensic interview. First, a discussion of the findings as related to the child's characteristics, including their age, race/ethnicity, gender, and

identified mental health diagnosis or disability is offered. Next, is a discussion and interpretation of the findings related to disclosure and the abuse factors, including the role of previous disclosure prior to the forensic interview. Finally, a discussion and interpretation of the findings related to the outcome of disclosure and the role of family support is outlined. This section of the chapter will also tie the findings back to the theoretical frameworks described in a previous chapter (see Chapter 2). Findings related to Leonard's (1996) social exchange theory to CSA disclosure will be discussed in context of each of the factors related to active or tentative disclosure. Finally, an overall discussion of how the study's findings relate to Sorenson and Snow's (1991) Process of Disclosure model will conclude the section on findings related to disclosure.

Child characteristics. Within the conceptual framework used in this study, several child characteristics were hypothesized to be related to the type of disclosure within forensic interviews. Factors included in the child characteristics category included the child's age, child's gender, a mental health or disability diagnosis, and the child's race/ethnicity. While each factor was not found to be significant, a discussion of each factor related to previous research, is included below.

Child's age. The findings in this study showed that as children increased in age, they were 0.8 times more likely to tentatively disclose during the forensic interview. In other words, younger children were more likely to disclose tentatively. Even though this finding was statistically significant, the odds ratio was so close to 1 that this finding basically shows a very small or minimal effect. Therefore, this finding does not support previous research, which has found that older children are more likely to delay initial

disclosure (Kogan, 2004) or not disclose at all, especially in the context of a formal investigation (Goodman-Brown, et al., 2003). However, there are a few explanations that can be drawn from this lack of finding in the current study. Because the current research examined a slightly different outcome of tentative disclosure, as compared to previous research on disclosure vs. non-disclosure, it is possible that the same effect of age is not present for the type of disclosure, active or tentative. It could also be that the sample size for this study was not robust enough to detect a significant effect for age.

Child's race/ethnicity. Interestingly, children who identified as Multi or Bi-racial were 5.1 times as likely to tentatively disclose as compared to the reference group of Caucasian children. There were no significant differences in disclosure type by children who identified as African American, Hispanic, or Other (African, Asian, American Indian, or unknown) as compared to Caucasian children. This finding is extremely interesting on many levels. Since previous research on the influence of race/ethnicity and culture and disclosure of sexual abuse in the context of forensic interviews essentially is extremely sparse (London, et al., 2005), it is difficult to interpret this finding within the context of the literature. Only one study examined the influence of the child's race on disclosure of sexual abuse during forensic interviews and found that Caucasian children were more likely to tentatively or not disclose as compared to African American children (Springman et al., 2006). However, no other studies exist on the influence of the child's race, including Multi/Bi-racial children and disclosure of sexual abuse. At best, conjectures about the findings can be made based on theories regarding the influence of cultural values and sexual abuse disclosure.

The conceptual framework used in this study, which drew from Bronfenbrenner's (1979) Ecological Perspective, supports the idea that cultural values and beliefs about CSA at the macro level will influence disclosure. Such beliefs may inhibit a full disclosure of a child during a formal investigation if the values of their culture do not support the telling of details to an investigator or forensic interviewer. This idea is also supported in the literature. In one such article, Fontes and Plummer (2010) argue that differences in cultural values may greatly impact disclosure of sexual abuse.

Beyond cultural values, actively disclose sexual abuse allegations within an investigation may be related to social exchange theory and 'reporting costs'. Fontes and Plummer (2010) also assert that many children and families may attempt to keep the abuse hidden from the authorities based on negative experiences in the past, known as 'reporting costs'. While it is quite possible that cultural values or 'reporting costs' may be a factor here, it is impossible to know as to what extent either could be playing in the children's tentative disclosure based on the data available for this study. In thinking about reporting costs, one plausible explanation is that Multi/Bi-racial children had a more difficult time disclosing as they were perhaps more aware of the potential consequences if they were to disclose fully and actively. Previous research on child welfare outcomes for children in Minnesota has found that Multi-racial children are significantly more likely to be placed out of the home and have abuse re-reported as compared to Caucasian children (Semanchin Jones, 2013). It is possible that these children have experienced, or witnessed others in their family, negative consequences of disclosing abuse to authorities and professionals. In considering social exchange theory,

perhaps these children determined that the costs of disclosing fully outweighed the benefits, such as getting help for themselves or the perpetrator. However, if cultural values and reporting costs were a significant explanation, it seems likely that such factors would influence a more likely tentative disclosure from children in other racial/ethnic groups as well, including children who identify as African American, Hispanic, or Other as compared to Caucasian children. Other possible explanations are that perhaps children in the Multi/Bi-racial category are qualitatively different from other children in that they do not identify with one culture, but two or more cultures and are receiving multiple messages about openly talking about sexual abuse. It is also possible that such effects were not detected in this sample as some of the numbers in the categories were small, especially in the Other category. It is clear that more research is needed on the how a child, and interviewer's, race/ethnicity and culture influences disclosure of sexual abuse in the context of forensic interviews.

Child's gender. The child's gender was not a significant factor in how the child disclosed during the forensic interview. Again, while the outcome of active or tentative disclosure during the forensic interview has not been examined specifically in previous studies, findings from other research on disclosure may help interpret these findings. In general, as previously discussed in Chapter 3, the literature is mixed on whether gender is a significant factor in disclosure during forensic interviews. Some research has found that females are more likely to disclose as compared to males in forensic interviews (DeVoe & Faller, 1999; Gries et al., 1996), but other research has found no significant difference (Goodman-Brown, et al., 2003). The findings from this study support the

latter with no significant difference, although a greater proportion of males disclosed tentatively (0.66) as compared to the females (0.45) within each of the respective categories.

Child's identified mental health diagnosis and disability. Whether a child had an identified mental health diagnosis or disability also did not significantly predict a tentative disclosure. This finding is contrary to most of the literature on delayed disclosure and willingness to disclose during forensic interviews. Previous research has found that children with a mental health diagnosis of anxiety, depression or PTSD are more likely to delay disclosure or not disclose (Broman-Fulks, et al., 2007; Priebe & Svedin, 2008). Similarly, children with disabilities have been found to delay or disclose with fewer details during forensic interviews (Hershkowitz et al., 2007). However, other research has failed to establish a significant relationship between a mental health or disability diagnosis and disclosure (Gries, et al., 1996). A recent study with children with intellectual disabilities who were interviewed were found to be engaged and active participants, indicating that with the correct support provided during the interview, there may not be a significant difference in disclosure ability or willingness between children with diagnoses and those without a diagnosis (Brown, Lewis, Lamb and Stephens, 2012). It is possible that is the case in the current study. Another possible explanation for the lack of significance in this study could be due to inaccurate case file data. While most information on the child's mental health diagnosis or disability was coded based on the case file, there were some children who discussed their mental health diagnoses or disabilities in the context of the forensic interview. In those situations, the case was

coded to reflect the additional information. However, it is possible that there were many other cases that did not have accurate or up to date information regarding a diagnosis and were therefore incorrectly identified as having no diagnosis or disability. In addition, it is also possible that the sample did not include enough children with moderate to severe disabilities to detect a significant effect. Prior to the forensic interview, CornerHouse staff evaluated the potential need for children to receive two interviews instead of one by examining information about the child's age and identified disability/mental health diagnosis. They do this evaluation with law enforcement and child protection workers who have had contact with the child and family and by talking with non-offending parents or caretakers on the phone. Oftentimes, if children have a severe disability or are under the age of 4, they are scheduled for a multiple session interview so that they have more time to establish rapport with the interviewer and get accustomed to the format of the forensic interview. Because only single session interviews were included in the sample, perhaps it excluded children with significant disabilities and mental health diagnoses that would have increased the numbers of children with disabilities in the sample. Additional research examining a child's mental health diagnosis or identified disability in the context of forensic interviews is needed.

Abuse specific factors. The next category of factors within the conceptual framework examined in relation to disclosure were abuse specific factors. These factors included the CSA allegation (severity of abuse), perpetrator threats, relationship of the alleged perpetrator to the child, and circumstances of initial disclosure. Within each

factor, discussion of findings are presented within the context of the literature and theoretical frameworks used.

Severity of abuse. The relationship between the severity of the abuse allegation (exposure and fondling, oral, and penetration) and type of disclosure was not significant in this study. However, a greater proportion of children who experienced the most severe abuse (penetration) disclosed tentatively (0.66) as compared to a less severe form of abuse, such as fondling (0.39). This non-significant finding is reflected in the previous literature on initial disclosure (Lamb & Edgar-Smith, 1994) and in reviews of the literature on sexual abuse disclosure (Paine & Hanson, 2002). It seems that while the tendency to assume the severity of abuse would be a significant factor in sexual abuse disclosure, it appears that there is a lack of agreement on whether the severity of abuse actually significantly influences disclosure of sexual abuse, as articulated by London et al. (2005). This lack of significance is also reflected on the lack of research examining or reporting data on this relationship, as outlined in the review of the literature on disclosure during forensic interviews (see Chapter 3). Clearly this factor is important, but perhaps is less important in the context of a formal investigation. Children may find discussing any kind of sexual abuse difficult, regardless of the type of allegation. But it appears that other factors play a more prominent role in a child's willingness to openly discuss what happened beyond the actual abuse allegation.

Relationship of the alleged perpetrator to the child. Relationship of the alleged perpetrator to the child was categorized in two ways in this study: related or unrelated and adult or peer. There were significant findings in both categories related to the

outcome of disclosure. First, children who were abused by alleged perpetrators categorized as adults (18 and over), were 2.4 times as likely to tentatively disclose as compared to children who were abused by alleged perpetrators under the age of 18. This finding is supported in other research on initial disclosure that suggests that children are less likely to disclose immediately or fully if the alleged perpetrator is an adult (Schönbucher et al., 2012), although the differentiation between an adult and peer perpetrator hasn't been examined in the context of forensic interviews. Alleged perpetrators in the adult category include fathers, grandfathers, mothers, grandmothers, uncles, aunts, step-fathers, parent paramours and other unrelated adult acquaintances. Children abused by adults may be more concerned about negative consequences for themselves, their families, or the perpetrator or feel a stronger sense of shame or guilt (Goodman-Brown, 2003; Staller & Nelson-Gardell, 2005). Furthermore, when a child is abused by someone who is older, there is an imbalance of control and power and children may be more reluctant to provide full detailed disclosures (Schaeffer, et al., 2011).

This significant finding of tentative disclosure if the child was abused by an adult, and the aforementioned reasons why this could have happened, is especially relevant to Leonard's (1996) application of Social Exchange Theory to CSA disclosure. Findings from this study suggest that children abused by an adult were significantly more likely to tentatively disclose, reinforcing what Leonard posited when discussing the unequal social exchange between an adult and a child. Since social exchange between the child and the alleged perpetrator is certainly unequal, especially when the abuser is an adult, the child is automatically at a disadvantage with limited options (Leonard, 1996). The adult, either

directly or indirectly, may have communicated to the child that they shouldn't tell and that they are partially responsible for the abuse. Therefore, when a child is considering disclosing abuse during the context of a forensic interview, they may decide the costs of full and active disclosure are too high.

Whether the alleged perpetrator was related or unrelated to the child was also significant in this study. When the alleged perpetrator was unrelated to the child, the child was 3.6 times more likely to tentatively disclose as compared to when the alleged perpetrator was related to the child. This finding is very interesting, especially since most of the literature has found the opposite. Most studies have found that when the alleged abuser is related to the child, the child is less likely to disclose initially without delay (Kogan, 2004; Priebe & Svedin, 2008) or within the context of a forensic interview (DeVoe & Faller, 1999). In this study, unrelated perpetrators included peer acquaintances, parents' paramours or roommates, and adult acquaintances. Since this finding contradicts some of the other research on disclosure and relationship to the alleged perpetrator, it is clear that more research is needed within forensic interviews.

Perpetrator threats, bribes and manipulation. Whether the child experienced any kind of perpetrator threats, bribes or manipulation was not significant in relation to disclosure during the forensic interview. This is also contrary to other research that has found that children are less likely to disclose immediately or fully in a forensic interview if they have experienced perpetrator threats, bribes, or manipulation (Hershkowitz, et al., 2007). Although this lack of significance may be representative of an issue across other research as this factor has not been examined and reported within the existing body of

literature very often. In this study, just over half of children reported experiencing perpetrator threats, bribes, or manipulation. However, it is very likely that some children did experience these threats and didn't share it. Whether children experienced such threats was coded based on what they were asked and said during the interview. It was also noted in the case file if the child mentioned having this experience. While most interviewers asked children about whether they did experience any kind of threats, bribes, or manipulation to keep quiet, many interviewers did not get to that point if they were more focused on asking more questions related to the abuse allegations alone. In the interviews where the children tentatively disclosed, interviewers were often focused on obtaining substantial information related to the alleged perpetrator and the abusive act. They sometimes did not broach the subject of perpetrator threats and children who tentatively disclosed did not spontaneously offer that information. Therefore, it is quite possible that due to the nature of the available information, the actual number of children who experienced perpetrator threats was artificially low. This is another area of research that needs to be more closely examined in the context of disclosure in forensic interviews.

Previous initial disclosure prior to the forensic interview. There were significant findings within the larger category of circumstances of previous initial disclosure prior to the forensic interview. The first category included information on how the child disclosed, verbally, witnessed/perpetrator confession, or behavioral concerns/medical results. The second category included information on the initial disclosure related to the timing, whether the disclosure was delayed (waited to disclose 1 week or longer) or not

delayed (minutes to 6 days after abuse). Within the first category of how the child disclosed initially, children who had the abuse witnessed by someone else or when the perpetrator made a confession were 3.1 times more likely to tentatively disclose as compared to children who made a verbal disclosure. This was a significant finding. These categories are corroborated in the literature, citing that using different methods of direct or indirect disclosure are a means to signaling something is wrong and perhaps hoping someone will notice (Alaggia, 2004; Ungar et al., 2009a). In this study, the significant findings related to a witnessed/perpetrator confession and a tentative disclosure may indicate that children who did not make an intentional decision to disclose prior to the forensic interview may be less willing or able to make a full, detailed disclosure during a formal investigation, even if there is another source providing information about the abuse (a witness statement or perpetrator statement). This finding is interesting on several levels. First, it suggests that when children do not have control over the circumstances of initial disclosure, they may be less likely to disclose actively in the forensic interview. They didn't have control over the initial disclosure and are asserting control within the disclosure process in the forensic interview. Another interesting aspect to this finding is the idea that even though there is additional outside evidence that abuse did occur, these children are not offering full disclosures and details. This finding actually lends additional credibility that a tentative disclosure is an important and common stage within the disclosure process and that these types of disclosures should be treated as credible, even if children are unable or unwilling to disclose fully

themselves. Further discussion on the implications of tentative disclosures will be provided in the next chapter.

Similarly, it is not surprising that if a child delayed their initial disclosure prior to the forensic interview that it would significantly predict a tentative disclosure. The findings in this study indicate that if a child delayed disclosing the abuse by one week or longer, they were 6.6 times more likely to tentatively disclose as compared to children who reported the abuse within 6 days of it occurring. The literature largely reflects studies that are trying to understand which children, and under which circumstances, will children disclose, not disclose or delay disclosure initially and do not extend into the investigation phase. Because of this, it is difficult to apply the findings of previous research on initial disclosure to the findings in this study. Other research has found that when children delay disclosure prior to the forensic interview they are more likely to not disclose or disclose reluctantly (Pipe et al., 2007; Sjoberg & Lindblad, 2002). In this study, findings support the notion children who are not ready, for whatever reason, to discuss the abuse prior to the forensic interview readily are also not ready to discuss it within a forensic interview.

Level of family support. The final main category within the conceptual framework used within this study is level of family support. Within this level, family support is further categorized into three levels of support: high, some or none. Within the next section, the findings from this category as it relates to disclosure within forensic interviews is discussed in relation to the literature as well as within the theoretical frameworks used in this study.

Family support. Family support was another significant finding related to disclosure within the forensic interview with children being 3.6 times more likely to tentatively disclose if they had no family support, as compared to children with high support. This finding is not surprising, given that previous research that indicates that children and adolescents are not likely to disclose readily if they anticipate negative reactions or consequences from family members (Alaggia & Kirshenbaum, 2005; Cromer & Goldsmith, 2010). Furthermore, of the children who are concerned about not receiving a fully supportive response, many have their fears realized. Children and adolescents in a study by Kellogg and Huston (2005) experienced lack of family support after initially disclosing with only half taking protective action to remove the perpetrator from accessing the child. Somer and Szwarcberg (2001) also found that children and adolescents received a negative reaction and were worried about emotional, verbal, and physical violence as a result of the disclosure. Many children in the current study likely had similar concerns and many voiced such concerns within the forensic interview. Some reported their families told them not to talk about what had happened and therefore, they were unwilling to provide many details regarding the abuse. Others described, in minimal narrative, about what their non-offending family members did upon the first disclosure. Children with unsupportive families often described reactions from family members such as disbelief, emotional, verbal and physical abuse, lack of protection, and attempts to keep the abuse a secret from authorities. Therefore, given the circumstances the children were facing at home, it is not surprising that they would be less likely to actively disclose during the forensic interview.

Lack of family support and tentative disclosure is also relevant to Leonard's (1996) social exchange theory and CSA disclosure. This same concept is also especially relevant when examining the lack of family support and likely tentative disclosure. When children perceive a lack of family support from adults in their families, they experience a lack of control and power in the relationship. Since social exchange between family members is often unequal, and is certainly unequal in the context of a child and the abuser, the child is automatically at a disadvantage with limited options (Leonard, 1996). Furthermore, disclosing the abuse actively and fully could mean that the child, family, or perpetrator could experience negative consequences such as breaking up the family. While not specifically tested within this study, there was likely a moderating effect on the relationship of the alleged perpetrator and the level of family support. As demonstrated in the correlation matrix, level of family support and relationship of the alleged perpetrator to the child were significantly correlated. Although they were significantly correlated, they were included in the same predictive model because they were both statistically significant despite the co-linearity. There is likely an interaction between these two factors, with family support being more likely if the alleged perpetrator is unrelated. It is important to mention this within the study because it was part of the conceptual framework used. For these children, the costs of disclosing fully in the context of a formal investigation may be perceived as too high.

Process of disclosure model. Finally, the findings from this study lend additional credibility to the process of disclosure of child sexual abuse model, developed by Sorenson and Snow (1991). While this study did not specifically examine all of the

components of the model (including denial, tentative disclosure, active disclosure, and recant/reaffirm), it does provide additional evidence that both tentative and active disclosures are distinctly different stages of disclosure of CSA. This is especially evident in the previously mentioned finding related to the circumstances of the previous initial disclosure and how a delayed disclosure significantly predicts tentative disclosure during a forensic interview. This finding really highlights one of the main components of the process of disclosure model by Sorenson and Snow: children who delayed initial disclosure may not be ready or able to discuss the sexual abuse allegations actively and that there is a definite distinction between the two types of disclosure. Whether the children who tentatively disclosed will ever move into an active disclosure phase is beyond the focus of this study. However, the findings presented here do distinguish the two types of disclosure within forensic interviews. Furthermore the findings do suggest that children who tentatively disclose should be viewed as credible and that tentative disclosures are common. This is especially evident in the finding of initial abuse being reported as a result of a witnessed or perpetrator confession and a more likely tentative disclosure. As previously discussed, these children, despite outside evidence that abuse occurred, were not able or willing to actively disclose with full details.

The findings in this study are also different from that of Bradley and Wood (1996), who also applied the process of disclosure model to formal sexual abuse investigations. Bradley and Wood primarily focused on whether children actually recanted and reaffirmed as often as Sorenson and Snow projected they would. They found that children were more likely to disclose actively or tentatively and were unlikely

to recent. The study by Bradley and Wood is important in that it was the first study to systematically examine Sorenson and Snow's model within official sexual abuse investigations. However, the focus was more on the range of responses along the process continuum and less on distinguishing the factors that might predict different types of disclosure.

Services to the Child and Family

This section provides a discussion and interpretation of the findings related to services that the child and family received after the forensic interviews, through the child protection department in Hennepin County, MN. Findings were focused on two service outcomes: counseling received by the child and basic needs referrals offered to the families. First is a discussion and interpretation of findings related to the outcome of counseling for the child in terms of child characteristics, abuse specific factors, and family support. Next is a discussion of the findings as related to the outcome of basic needs referrals for the families related to the child's characteristics, abuse specific factors, and level of family support.

Counseling for the child. This section explores the findings related to the outcome of counseling for the child. Following the conceptual framework, each finding is organized into the categories of factors used to examine this service outcome: child characteristics, abuse specific factors, and level of family support. These findings are discussed in relation to the literature and, when relevant, the theoretical frameworks.

Child characteristics. There were no significant findings related to the child's characteristics and whether they received counseling. In other words, the child's age,

gender, disability/mental health diagnosis and their race/ethnicity did not significantly predict their receipt of counseling services. This could be considered a positive finding for social work practice, since children and families should be evaluated and receive counseling based on factors other than their demographic characteristics. Meta-analysis of treatment of CSA support this notion, with children of all ages, gender, and previous mental health diagnoses all benefitting from therapy, although this benefit is especially pronounced with older children, boys and those with previous diagnoses of PTSD (Trask, Walsh, & DiLillo, 2011). Within this handful of cases, it appears that child protection workers evaluated a child's need for counseling based on other factors other than their demographic characteristics.

Severity of abuse. Within the category of abuse specific factors, there were significant findings related to the sexual abuse allegation and outcome of counseling for the child. Children who experienced more severe abuse (penetration) as compared to children who experienced less severe abuse (such as exposure or fondling) were 1.8 times more likely to receive counseling. This finding makes sense on a practical level, with the idea that child protection workers are evaluating a child's need for counseling based upon the severity of the abuse. The need for counseling services, especially for children who have experienced more severe sexual abuse allegations, is also validated in the literature. One study found that children who have experienced more severe sexual abuse were more likely to experience a greater number of mental health symptoms (O'Leary, et al., 2010). Given this relationship, it makes sense that children who experienced more severe

abuse were provided with counseling more often than children who experienced less severe abuse.

Relationship of perpetrator to child. There were no significant findings related to the relationship of the alleged perpetrator to the child and whether the child received counseling. This is surprising since other research has shown that children feel a stronger sense of guilt and a greater sense of responsibility for the abuse if they were related to the alleged perpetrator (Goodman-Brown, et al., 2003; Staller & Nelson-Gardell, 2005). In addition, previous research has also indicated that children who have been abused by a family member experience more instances of mental health issues as compared to those who were abused by non-relatives (O’Leary, et al., 2010; Ullman, 2007).

Perpetrator threats. Perpetrator threats were also not significant in whether the child received counseling. Since threats can include physical and verbal aggression such as telling the child they will kill the child or members of the child’s family if they tell, one would assume that the combination of experiencing sexual abuse and threats would warrant a referral for counseling. Since child protection workers are part of the multidisciplinary team viewing the forensic interview and the child’s statement and are aware of what the alleged perpetrator said or did to keep the child quiet, it is especially puzzling that this was not a significant factor in predict whether children received counseling.

Level of family support. Finally, children were 5.9 times more likely to receive counseling if their families were categorized as not supportive, as compared to families who were highly supportive. This tendency to provide the opportunity for counseling

when there is a lack of support makes sense in practice and is validated within the literature. Previous research shows that when children disclose sexual abuse to a supportive family member, they are less likely to experience PTSD (Hyman et al., 2003). Other research has shown that positive social support from non-offending family members decreases psychological distress in children who have experienced sexual abuse (Ullman & Filipas, 2005). Therefore, the decision to provide counseling for children who have experienced sexual abuse and a lack of family support is both supported in practice and validated in research.

In general, the overall percentage of children receiving counseling in this sample was low, with only 25% of children receiving counseling. This seems quite low, given that previous research has shown that nearly 80% of children who are sexually abused suffer from post-traumatic stress disorder (Dube, et al, 2005). However, since these are only cases where counseling was offered, and completed, through the child protective services department, it is possible that the actual participation of counseling was higher since many families might pursue counseling on their own. In some cases, children were probably already enrolled or participating in counseling. In those situations, the child's participation in counseling would not have been included in these numbers. The cases in this sample were most likely representative of situations where the family did not have other referrals or resources for finding counseling on their own and were mandated to complete counseling. However, without access to that specific information, it is difficult to interpret how often that is happening beyond these specific cases. At least in this

sample, it appears that decisions about whether children were in need of counseling was based upon the abuse allegation and lack of family support.

Referrals for basic needs to the family. This section reviews findings related to the outcome of referrals for basic needs services to the family. Like the previous sections within this chapter, this section is organized by the main categories within the conceptual framework used to guide this study. The first section reviews findings related to the category of child characteristics. Next is a review of findings related to previous research on abuse specific factors. The final section reviews the findings related to the level of family support and referrals for basic needs services to the family.

Child characteristics. Like the outcome of counseling for the child, there were no significant findings related to the child's characteristics and whether they received basic needs referrals. In other words, the child's age, gender, disability/mental health diagnosis and their race/ethnicity did not significantly predict their receipt of basic needs referrals. This could be considered a positive finding for social work practice, since children and families should be evaluated and receive referrals for basic needs based on factors other than their demographic characteristics. Within this handful of cases, it appears that child protection workers evaluated a family's need for basic needs based on other factors other than their demographic characteristics.

Severity of abuse. Similar to the child counseling outcome, families were 1.9 times more likely to receive referrals for basic needs if the abuse allegation was more severe. This is nearly the same odds as for the outcome of child counseling, and while some of the cases did overlap, most were different cases. This is an interesting finding

because it essentially means that these families in particular presented as having more needs than children who disclosed less severe allegations. However, there is no literature that demonstrates that children who have experienced more severe allegations of sexual abuse have families with higher needs for other resources. Like the outcome of child counseling, children who had experienced perpetrator threats, bribes or manipulation were not significantly more likely to receive referrals for basic needs as compared to children who didn't experience perpetrator threats.

Relationship of perpetrator to the child. Another significant finding was related to the alleged perpetrator's relationship with the child. Here, if the alleged perpetrator was related to the child, the child's family was 4.9 times more likely to receive basic needs referrals. This finding makes sense on a practical level as well. If the alleged perpetrator was previously living in the home, the family might need assistance finding alternative living accommodations for the perpetrator or for themselves and other non-offending family members. They may also need financial assistance or referrals for medical care if the family is making alternative living arrangements and separating. This is especially pertinent if the alleged offender was a contributor to the family's overall income (Elliott & Carnes, 2001).

Level of family support. Finally, lack of family support also significantly predicted whether the family received referrals for basic needs, with families being 4.4 times as likely to receive referrals if they were not supportive as compared to highly supportive families. As outlined within the conceptual framework, with family support as being related to relationship of the alleged perpetrator to the child, this finding is also

interesting in that it points to a careful assessment by the child protection workers who find that families who aren't supportive may have many needs that could have interfered with their ability to provide support to their child upon initial disclosure. These issues include the non-offending parent's relationship with the alleged offender, their financial dependence on the perpetrator, and their own ability to process the disclosure and to take protective action in a situation where they may be reliant on the abuser. In previous research on non-offending mothers reactions to an initial child sexual abuse disclosure, many were found to process the knowledge of the abuse over a length of time with some failing to take immediate protective action due to their financial or emotional dependence on the abuser (Lovett, 2004). Non-offending family members, mostly mothers, have been found to experience a high rate of intimate partner violence by perpetrators of child sexual abuse of their children, with estimates from 40% (Humphreys, 2000) to 70% rates of co-occurrence (Hamby, Finkelhor, Turner, & Ormrod, 2010). These non-offending mothers are significantly more likely to face barriers in leaving the home due to economic dependence on the abuser (Anderson, 2010). This economic and emotional dependence could have impacted their ability to respond with full support to their children upon their disclosure of the sexual abuse (Bolen & Lamb, 2003). While it is not possible to know what the specific situations of the families were based on the data available for this study, it is likely that some families did experience these issues and may not have responded supportively. In this study, it appears that child protection workers were able to assess these families to determine what basic needs they were in need of since the sexual abuse allegations were disclosed during the forensic interview.

Providing assistance to these families is essential to the overall well-being of the children and their ability to heal and move forward.

Family Living Situations

In this section is a discussion and interpretation of the findings related to the family living situation outcomes that the child and family experienced after the forensic interviews, handled through the child protection department in Hennepin County, MN. Findings were focused on two living situation outcomes: child placement out of the home and safety plan implementation within the home. First is an overview of the findings related to the outcome of child placement out of the home in terms of child characteristics, abuse specific factors, and family support within the context of existing literature. This is followed by a discussion of the findings as related to the outcome of safety plan implementation as related to the child's characteristics, abuse specific factors, and level of family support.

Child placement. Overall, the cases in this sample showed a slightly higher out of home placement rate of 18%, after receiving a forensic interview, as compared to previous studies which suggest that child out of home placement after a forensic interview at a CAC resulted in an average of 15% removal rate (Cross et al., 2008). Because the current study is not comprised of a random sample, the findings can't be generalized beyond this sample. However, it is important to note that the rate of out of home placement is higher in this sample as compared to previous research and is consistent with showing that investigations through children's advocacy centers (CACs)

may involve a more thorough assessment of the child's family living situation and their overall needs beyond criminal prosecution of the alleged perpetrator.

It is important to note that due to issues with small numbers in some of the predictor categories, along with the overall low achieved power of the models related to the outcome of child placement, the findings as discussed and interpreted in this section should be considered exploratory. However, despite the issues related to effect size and power, the findings do offer some interesting thought as relating to other research and ideas for future research. However, as previously discussed, and as will be discussed in the limitations section later in this chapter, limitations for this particular outcome, the findings discussed here should be interpreted only as a starting point for informing future research with larger samples.

As was the case within the previous discussion sections related to each outcome variable, this discussion is organized into the main categories as outlined by the conceptual framework: child characteristics, abuse specific factors, and family support.

Child characteristics. The findings in this study show that a child's race/ethnicity was a significant factor in predicting whether they would be removed from the home and placed elsewhere after the forensic interview. African American children were 6.0 times more likely to be removed from the home and Multi/Bi-racial children were 5.7 times more likely to be removed from the home, when compared to Caucasian children.

Although there is not much research on outcomes of child placement after participating in a forensic interview, these findings do corroborate other research on the over-representation of children of color, in particular, African American children, within the

child welfare system (Chibnall, et al., 2003). In Minnesota, the disproportionate rate for out of home placement for children of color, especially African American children and Multi-racial children (Semanchin Jones, 2013), is among the highest in the United States (Padilla & Summers, 2011). Both studies report significant issues related to worker assumptions regarding higher risk within African American families and worker bias (Chibnall, et al., 2003). While worker's assumptions and decision making in regards to removal of children from the home is beyond the scope of this study, findings do lend further evidence of disproportionate out of home care for children of color who have experienced any kind of abuse or neglect. This suggests a systemic issue regarding decisions about removal of children, family risk, and the family's race/ethnicity. At the macro level, Bronfenbrenner's Ecological Perspective situates societal beliefs about CSA and about families of color having a higher risk of re-abuse. Therefore, while worker bias is informed by societal beliefs, so are the structures that continue to perpetuate the conditions for families of color to be deemed as 'more at risk'. Beyond a child's race/ethnicity, there were no significant findings related to a child's removal from the home and the child's gender, age, or disability/mental health diagnosis.

Relationship of the alleged perpetrator to the child. When the alleged perpetrator was related to the child, children were 3.4 times more likely to be removed from the home. This finding was shown when controlling for the child's race/ethnicity. In exploring the percentages of children and their alleged abusers, it is clear that children in the categories of African American and Multi/Bi-racial are experiencing more abuse by relatives as compared to children in other categories, with African American children

experiencing abuse by a relative 71.7% of the time and Multi/Bi-racial children being abused by a relative 78.8% of the time (see Table 6.1). Therefore, based upon this information, it does appear that a child experiencing abuse by a relative is more likely to be removed from the home and perhaps most decisions about child placement are made with this in mind.

	Related		Unrelated	
	(n)	%	(n)	%
Child's Race/Ethnicity				
African American	43	71.7%	17	29.3%
Caucasian	30	52.6%	27	47.4%
Hispanic	18	60.0%	12	40.0%
Multi/Bi-racial	26	78.8%	7	21.2%
Other	6	37.5%	10	62.5%

Severity of abuse and perpetrator threats. There were no significant findings related to the sexual abuse allegation or whether the child experienced perpetrator threats, bribes or manipulation and the outcome of the child's removal from the home. Since there have been no significant findings related to perpetrator threats thus far, it isn't surprising that there were no significant findings for this outcome either. However, it is somewhat surprising that the sexual abuse allegation was not significant.

Level of family support. Children with unsupportive families were 5.2 times more likely to be removed from the home as compared to children with highly supportive families, as defined by the level of family support in this study. This finding was

obtained when controlling for other significant factors related to out of home placement, including the child's race/ethnicity. According to the U.S. Department of Health and Human Services (n.d.), when assessing whether the child should be removed from the home, workers must identify the risk of the child being re-abused, assessing risk factors in the alleged perpetrator and the protective ability of the non-offending parent. In the assessment of the families in the current study, child protection workers are evaluating the need for the child to be in a safe and supportive environment. If the family did not seem willing or able to meet the child's emotional and physical safety needs, or the child wished to be placed elsewhere, the child needed to be removed. Using an assessment of family support as an indicator for whether the child should remain in the home has been linked to psychological outcomes in previous research (Bolen & Lamb, 2007), although the study cautions that the level of family support should also include the quality of the relationship prior to the abuse, as parental support is sometimes an inconsistent predictor in better child mental health functioning. This finding is also interesting when considering that the families where the children were removed from their care are mostly the same families that received referrals for basic needs. This shows that while the children were removed from their homes, services were implemented for the family to provide a means to re-gaining custody of their children once identified issues were resolved.

Safety plan implementation in the home. Overall, 49% of all cases had a safety plan implemented in the home after the forensic interview was completed. Within this high percentage of cases, there were several significant findings related to the child's

demographic characteristics and abuse specific factors. Each of these factors is discussed in the following sections below.

Child characteristics. Findings show that with each increase in age per year, children are 1.1 times more likely to have a safety plan implemented within the home. However, this significant finding should be interpreted cautiously, as the odds are very close to 1 and therefore show an extremely small effect. Therefore, while this was a significant finding, it should be interpreted as being not significant since the effect was so small.

Another significant factor within the category of child characteristics is related to the child's race/ethnicity. In this sample, Hispanic children were 4.4 times more likely to have a safety plan implemented in the home as compared to Caucasian children. This is especially interesting when considering that 60% of the Hispanic children in the sample were related to the alleged perpetrator, a percentage lower than the rates of abuse by relatives for both African American and Multi/Bi-racial children (see Table 6.1). Findings for other race/ethnicity categories including African American children, Multi/Bi-racial children, and children in the Other category were not significant for safety plan implementation. Therefore, it appears that safety plan implementation is not as contingent on whether the abuser was related. However, when examining whether the child was abused by an adult or peer, Hispanic children were abused most often by an adult (83%) as compared to children in any other racial category (see Table 6.2). Therefore, based on this information, it appears that decisions about safety plans are more contingent on whether the abuser was an adult and not a relative.

	Adult		Peer	
	(n)	%	(n)	%
Child's Race/Ethnicity				
African American	36	60.0%	24	40.0%
Caucasian	33	57.9%	24	42.1%
Hispanic	25	83.3%	5	16.7%
Multi/Bi-racial	14	42.4%	19	63.6%
Other	9	56.3%	7	43.7%

As previously discussed, when considering that both African American and Multi/Bi-racial children were significantly more likely to be removed from the home as compared to Caucasian children, coupled with this significant finding for Hispanic children, it appears that children of color are significantly more likely to have a formal plan of action taken after the forensic interview as compared to their Caucasian peers. This also raises some important questions about how decisions about placement and safety plans are made. For example, as explored previously, it is possible that perhaps the alleged perpetrators of the Caucasian children are being removed more often than the alleged perpetrators of the other children and therefore, the Caucasian children don't need to be removed or have a safety plan implemented. It could also be that the families of color are being assessed as needing more formal protective plans implemented, both safety plans and child removal, as compared to Caucasian families, as demonstrated by other research finding children of color as being overrepresented in the child welfare system (Chibnall et al., 2003). When re-visiting the idea that societal beliefs about CSA,

families of color, and risk within Bronfenbrenner's (1979) Ecological Perspective perpetuate different outcomes for children of color at a structural level, this finding is not surprising. Again, definitive conclusions about this particular finding and how it relates to the significant finding of the over-representation of children of color being removed from the home, are difficult to make without additional information and due to the limitations in the sample in this study. This is an area of research that needs to be examined further.

Abuse specific factors. There were a few significant findings related to abuse specific factors and safety plan implementation. First, when the alleged perpetrator was related to the child, a safety plan was 10.1 times more likely to be implemented in the home. This makes sense on a practical level since safety plans are designed to protect children when alleged perpetrators are family members or are residing in the home with the child. The other significant finding related to safety plan implementation was the sexual abuse allegation with a more severe abuse allegation (such as penetration) as being 2.0 times more likely to have a safety plan implemented in the home. This also makes sense on a practical level with the highest protective plans being implemented for those who experienced more severe abuse. There were no significant findings related to perpetrator threats, which again, isn't surprising given the lack of significant findings related to the other outcomes.

Level of family support. Finally, there were no significant findings related to the level of family support and safety plan implementation. This is surprising seeing as how lack of family support was significant in predicting a child's removal from the home.

The lack of significance here is interesting as a central component of ensuring a child's safety rests upon the non-offending family member's support and adherence to the plan. This includes enforcing the plan, adhering to the guidelines, and reporting issues with implementing the plan to the child protection staff if necessary (U.S. Department of Health and Human Services, n.d.). Therefore, it would seem logical to assume that families should be assessed as being able to implement the plans successfully. However, within the lack of significant findings here, there does not appear to be a difference in determining which families have a safety plan implemented and those that do not in terms of their level of family support. In fact, the proportion of families who were categorized as being unsupportive was higher in safety plan implementation ($n=23$; 0.51) than families without a safety plan put into place ($n=12$; 0.22). Unfortunately, the current study does not have additional data to understand what support these families might be receiving to implement these plans. However, it does seem that since the unsupportive families had difficulty with handling the disclosure prior to and during the forensic interview, it seems likely that close monitoring of these families would be necessary to ensure a child's safety.

Limitations

There are several limitations to this study which may threaten the internal and external validity of the findings. First, due to the study design, the findings cannot be used to establish causation. While efforts were made to control for significant variables that might have moderated the relationship between the predictors of interest and the outcome variables, statistical control can only go as far as to control for factors included

in the model. In this research, at best, it can identify significant relationships, both adding to the body of existing research as well as raising new questions for future research. Second, the sampling method used in this study was convenience sampling and not random. Therefore, the findings can only be attributed to being representative of the population studied, children who disclose sexual abuse during forensic interviews at CornerHouse. However, since this study was designed to gather more information about an area of research that hasn't been fully investigated yet, it is not seeking to establish causation or to generalize the findings to the entire population.

Reviewing the video-taped forensic interviews and case files for all of the children in this study required a lot of time. Even so, the sample size of 196 is small for using logistic regression analysis, especially when using multiple predictor and control variables. Small numbers in some of the categories such as identified mental health diagnosis and disability and in the child's race/ethnicity were issues for the overall power. In addition, when outcomes for child protection cases were examined, categories with already small numbers (near 10), became quite small for some outcomes. This was especially true for the outcome of child placement, where the percentage of child placement was small (18%) and so many categories where children were placed out of the home were quite small. Therefore, the findings pertaining to child placement can only be considered exploratory and similar factors should be examined with a larger sample. Furthermore, while most models in the study achieved desired power above 0.80, a few models did not. These included the abuse specific model as related to

tentative disclosure and the model related to child placement. Therefore, these factors should be examined with larger sample sizes.

The overall effect size for the models ranged from 0.15 to 0.43, with most predictive models achieving an effect size in the low to mid 0.30s. This study used the Cragg and Uhler (1970) pseudo R-squared estimate. As previously mentioned (see Chapter 4), pseudo R-squared values should be interpreted with caution as they do not have the same ability to compare variance as other statistical analyses might (for example, an R-squared value in multiple regression). Pseudo R-squared values are also often much lower than R-squared values in other analyses, such as multiple regression. So, while at least some measure of effect size was used in this research, it has its own set of inherent limitations.

The method of data collection used, content analysis, does not rely on an established instrument, where as validity and reliability statistics have been identified in other research using validated measures. While this research argues that both face validity and construct validity were established by using existing categories for demographics and definitions used in previous research, there is not additional data on whether the definitions used have been correlated with other similar measures or how exhaustive the definitions are. Inter-rater reliability was established by the coding of all of the interviews by one person and coding from the written narratives of the child's presentation and participation by the forensic interviews who conducted the interviews (see Appendix A for the coding sheet used). While it would have been more ideal to have at least one other person code all of the other interviews, it was not feasible for this

research due to constraints on time and resources. However, if similar research is performed in the future, steps to establish IRR using the same coding procedure by at least two people should be taken.

Because this was a field study relying on existing data and records, there were several limitations in the information available. First, this research is based upon the interviews of children who have made sexual abuse allegations. In some instances, there was additional evidence corroborating their statements, such as a perpetrator's confession, a witness statement, or medical evidence. However, this rarely occurred. If the sample only included cases with outside evidence, the sample would have been extremely small. This is perhaps the biggest issue within the investigation of child sexual abuse allegations. Oftentimes there is very little evidence beyond the child's statement that sexual abuse did occur. Physical and medical evidence of sexual abuse is rare and perpetrators often do not confess. The point of this study was not to focus on the accuracy of the child's statements per say, but on the way they disclosed and the outcomes after their disclosures. It is quite possible that in some of the cases in this study, children were providing false or inaccurate information. However, research has found that children rarely make false allegations of sexual abuse during formal investigations, estimating false reports between two (Oates, et al., 2000) to five percent (Bruck, et al., 1998). Therefore, there is no reason to assume that the a large percentage of children in this sample, or children participating in forensic interviews in general, are providing false reports of sexual abuse. There is really no way of knowing specifically which children are 'telling the truth' and which are not. The point of the forensic

interview is to provide credible evidence to the allegations made. Beyond the child's statement, no assertions of accuracy or additional conjectures of the likelihood of abuse having occurred can be made from this study. This is a limitation to all field research examining disclosure of child sexual abuse, whether initial disclosure or disclosure during forensic interviews.

A limitation that often occurs in using existing records is the information contained in the records is restricted, additional information cannot be retrieved and included. This is true in both the accuracy of the existing information as well as the overall scope of information. For example, it is quite possible that data in the existing case files were inaccurate such as data for the child's existing mental health or disability diagnosis. Oftentimes, the case file listed the child as having no diagnosis, but then during the forensic interview, the child mentioned they had a diagnosis. While it is possible the child did not know their diagnosis when self-reporting, it is reasonable to assume that the case file contained incomplete or inaccurate information. This inaccuracy could have occurred in any of the variables and the data was corrected when new information was presented during the child's forensic interview narrative. However, it appears that a small handful of these corrections were not made within the case file itself, despite the new information presented by the child. In addition, the forensic interview contained a lot of information, but was limited in terms of what the interviewer asked the child and what information the child shared during the interview. Although similar questions and topics were discussed across most interviews, not all interviews had the exact same information as compared to the others. For example, while most

interviews did have a discussion about perpetrator threats, bribes, or manipulation, not all did. Therefore, it is quite possible that some information was missing because it wasn't available. Finally, because only specific information was contained in the case file, it was not possible to access certain information that could have been relevant to this study. One such variable was the perpetrator's living situation before and after the forensic interview. Another is the family's income. Another still is the family's past involvement with child protection. Or, the child's involvement in a child sexual abuse prevention program at school. Again, this is a potential limitation in any study, but especially in one where the data is fixed without a mechanism in place to gather other data that might be relevant.

Summary of Discussion and Limitations

In conclusion, findings in this research lend additional knowledge to the limited existing body of research on disclosure during forensic interviews. Most findings aligned with other research on disclosure during forensic interviews. These include findings related to disclosure and significant factors that predict tentative disclosure such as the type of disclosure and relationship to the alleged perpetrator. The type of disclosure prior to the forensic interview predicted tentative disclosure with children who did not make a verbal disclosure and who delayed initial disclosure as being more likely to tentatively disclose. In addition, children who were abused by an adult were more likely to tentatively disclose. There were also findings, however, that were not significant in this study that have been significant in other research on initial and forensic disclosure. These include the child's age, gender, disability and mental health diagnosis, severity of

abuse, and perpetrator threats. Since the body of research on disclosure during forensic interviews is still rather small, more research on each of these factors is advisable.

Findings from this study not only contribute to the existing body of research on disclosure of CSA within forensic interviews, it also contributes new information to the existing gaps within the literature. First, since a comparison of active and tentative disclosure during forensic interviews has only been examined in a few studies, these findings offer new knowledge to the existing body of literature on this subject. In addition, since only a small handful of studies have been done on child's race/ethnicity and disclosure in forensic interviews, this study contributes to the gap within the literature. It also contributes to the existing gap in terms of how family support influences a child's disclosure within the context of a forensic interview. Furthermore, findings from this study offer yet more information on service and family living situation outcomes after disclosure of sexual abuse during forensic interviews.

While these findings offer new information in the field of disclosure of CSA during forensic interviews, there were several limitations. The limitations in this study are common limitations in any kind of field research, especially when examining disclosure of sexual abuse during forensic interviews. It is advisable that future research replicating this study use a larger, random sample if possible, in order to generalize the findings beyond the study sample.

Chapter Seven: Implications and Conclusion

In this chapter, implications for policy, social work practice, and directions for future research will be discussed. The first section outlines implications for policy addressing disclosure during forensic interviews and investigations. The second section of this chapter examines how findings from this study may inform to social work practice with children and families who are dealing with sexual abuse. The third section focuses on implications and suggestions for future research. The last section of this chapter is the overall conclusion for this dissertation study.

Implications for Policy

Findings from this study show that disclosing tentatively is a common occurrence for children when participating in a forensic interview. In this study, one third of all children disclosed tentatively ($n=65$). This finding is very important for policy in child sexual abuse investigations, both within court proceedings and within the child welfare system.

Understanding tentative disclosure during court proceedings and in investigations. Since the video-taped forensic interview is often submitted into evidence as part of criminal court proceedings, it is imperative that the child's statement is put into context of the disclosure process. Because few studies on a comparison between active and tentative disclosure during forensic interviews exist, it is likely that this information is not being emphasized during court proceedings. However, if a child's tentative statement is shown during a trial, it is also likely that the defense attorney representing the alleged perpetrator would try to make the child look less credible by focusing on the

child's unwillingness to provide a detailed, descriptive disclosure. A defense attorney would likely attempt to discredit the child's tentative statement by picking apart their statement, focusing on the child's discomfort during the interview and lack of specific details provided in their statement as proof that the child is not telling the truth and that their client is innocent. For a jury viewing a child's tentative statement, this could appear to be a logical explanation for their behavior. However, because tentative disclosure is relatively common, findings from this study could help prosecuting attorneys contextualize this type of disclosure as both normal and credible.

Findings from this study, and findings from similar studies in the future, can help establish baseline percentages for how frequent tentative disclosures during forensic interviews are. In this study, it occurred one third of the time. However, in other samples, this percentage could be higher or lower. Furthermore, findings from this study also found that some children were significantly more likely to tentatively disclose as compared to other children, including: Multi/Bi-racial children, children who delayed disclosure by more than one week, where abuse was witnessed or reported as a result of a perpetrator's confession, when abuse was perpetrated by an adult, and when children has unsupportive families. Findings from this study, and other future studies on tentative disclosure during forensic interviews, could help contextualize a tentative disclosure, providing a broader understanding for circumstances of when and why a child might provide this type of disclosure. These findings, and other future studies on tentative disclosure, could help set precedence in court proceedings on CSA, making such research

and evidence permissible as part of a prosecuting attorney's argument that the child's statement is both normal and credible.

Findings from this study are also important in creating more awareness and understanding, both the commonality and factors related to tentative disclosures within forensic interviews, for decision makers creating and amending policies within organizations investigating child sexual abuse allegations. For example, while specially trained forensic interviewers whose job is to only conduct forensic interviews with children were included in this study, the person conducting the forensic interview in other counties throughout the state of Minnesota and within the United States varies widely. Oftentimes this person is a child protection worker, who may or may not have had forensic interviewing training. CPS workers will normally conduct one interview and if not other confirming evidence emerges after one interview, the CPS worker will usually deny the case (Child Welfare Information Gateway, n.d.). In other counties or circumstances, law enforcement may conduct the interview with similar results. These practices are informed by policies that guide practice for interviewing children and making determinations as to how to proceed with the case and the family. If a child provides a tentative disclosure, organizational policy may not support continued engagement with the child's family or proceeding with the case for continued monitoring or investigation since the child is providing minimal details and may appear less credible. However, findings from this study may help inform policy for understanding that a tentative disclosure is both common and normal for children, especially for children in specific circumstances (unsupportive families, abuser is an adult, etc.). This awareness

about tentative disclosure may create a chance in policy to allow for more opportunity for CPS workers and law enforcement to continue with an investigation when policy might not support the continuation with a case otherwise.

Implications for Social Work Practice

In general, a greater emphasis on understanding the disclosure process, and understanding tentative disclosure, is needed within social work education and trainings on working with children who have been sexually abused. As previously discussed earlier in the chapter, understanding how common a tentative disclosure can be, and the factors associated with a tentative disclosure, can help child welfare workers and investigators familiarize themselves with the idea that tentative disclosure is both common and that these children's statements should be considered credible, even if they were unable to offer as detailed of a narrative of their experiences during the forensic interview. This is not to suggest that service providers should continue to question the child about the abuse allegations later, but as McElvaney (2013) recommends, to remain open to the possibility for further disclosure.

The issue of race/ethnicity and culture was also significant across several of the outcomes in this study. Multi/Bi-racial children were significantly more likely to disclose tentatively as compared to Caucasian children; African American and Multi/Bi-racial children were more likely to be removed from the home as compared to Caucasian children; and Hispanic children were significantly more likely to have a safety plan implemented as compared to Caucasian children. These findings raise important questions about how children and families of color are experiencing sexual abuse

investigations, from the forensic interview and outcomes in child protection cases. These questions and implications for practice will be explored in following section.

The role of cultural competence in forensic interviewing and in CSA investigations. Children and families who hold certain cultural values may be less likely to disclose CSA openly, especially in the context of an official investigation. Fontes and Plummer (2010) suggest that children may be silenced by shame, modesty, women's status, patriarchy, and religious values, if those issues are highly influential or valued in the child's culture. While it is unknown whether these values played a role in the children's reluctance to disclose during the forensic interview in this sample, it is possible that some of these issues played a role to some degree. Disclosing CSA in a forensic interview or to professionals may conflict with these values and children may decide it is more important to adhere to the values of their culture, rather than report the abuse.

Another potential factor in the significant difference between the groups in this study has to do with a family's message to their children about reporting costs. Reporting costs are when families experience a loss of privacy, extended family support, and practical losses, such as a loss of income (Massat & Lundy, 1998). Because families of color are more likely to have negative outcomes, such as having a child removed from the home or receiving fewer services (Hill, 2006; Roberts, 2002), these families may be less likely to encourage their children to openly disclose the abuse during the investigation. Upon initial disclosure, these families may have listened to the child's disclosure, but then intentionally attempted to hide the abuse from authorities. In this study, such actions would have lead to families being categorized as unsupportive.

These issues, among others, point to the need to understand the role of cultural competence of forensic interviewers and child protection workers. Cultural competence is the ability for a professional to understand a worldview or culture other than their own, and to adapt their approach to working with the client or clients. Unfortunately, little research exists on the role of cultural competence in forensic interviews (Fontes & Plummer, 2010). This is a significant issue for social work practice as it is well documented that the workforce of forensic interviewers and child protection workers is not as diverse as the clients served (Child Welfare League of America, 2002) and forensic interviews or investigations are often carried out in English with a translator. That was certainly the case in this study; all forensic interviewers were Caucasian and interviews were conducted in English, with translators when needed. Limited research has shown that matching a child with a forensic interviewer of the same race/ethnicity does not show children of the same race/ethnicity to disclose more often as compared to children of other racial groups (Springman, et al., 2006). However, the combination of understanding a child's cultural context, use of appropriate language, and an overall child friendly approach can be useful. Other research has shown that when forensic interviewers use overall warmth and a supportive tone, children were able to make more accurate disclosures, no matter the race of the child and forensic interviewer (Davis & Bottoms, 2002).

The National Children's Alliance has set forth recommendations regarding diversity and cultural competency within Children's Advocacy Centers in the United States. Recommendations include providing accommodations for translators when

children do not speak English or need a sign language interpreter, that CAC staff and multidisciplinary team members use cultural competency practice when engaging with children and families, that CAC staff and volunteers reach out to communities they serve, and that each CAC develops a plan for implementing cultural competency standards and builds in an evaluation of their plan (National Children's Alliance, 2006). Some recommendations include hiring and engaging diverse staff with difference educational, practice, and cultural backgrounds. Others include engaging the community through understanding the population of children and families served, presentations to culturally diverse organizations and networking with leaders in communities of color. Interviewing or surveying parents regarding their perception and satisfaction with services can be another gauge for how well families are feeling engaged by the investigation process, both in general, and within the context of culturally competent services.

The Children's Advocacy Center where the current study took place does have a cultural competency and diversity plan in place. Particular emphasis of the plan includes outreach to communities of color through meetings with community leaders and organizations and the hiring and engagement of culturally diverse staff with various educational and practice backgrounds. Staff receive initial training on forensic interviewing, including using cultural competence when interviewing children from diverse backgrounds and languages. They have implemented a plan to evaluate their forensic interviewing practice, with special emphasis on outcomes related to children and families of color. Based on this study's findings, it appears that children who are Multi/Bi-racial are more likely to tentatively disclose. Therefore, paying special attention

to interviewing practices with children of this background is recommended. It is vital that cultural competence in forensic interviewing receive special attention in trainings and in the peer review process. This is true, especially when considering that forensic interviewers come from many professional backgrounds and may have not received training on using cultural competence in their professional training. Follow up training and the peer review process should pay special attention to using cultural competence during forensic interviews and CACs should consider making an effort to employ forensic interviewers who can conduct the interviews in languages other than English (Fontes & Plummer, 2010).

Decisions about services, placement, and safety plan implementation.

Children of color are significantly over-represented in the child protection system in the United States (Hill, 2006) and, once in care, are more likely to receive adversarial, rather than supportive, care (Roberts, 2002). In the current study, African American and Multi/Bi-racial children were significantly more likely to be removed from the home as compared to Caucasian children. Overrepresentation of children of color in child protection cases, and out of home placement, is an issue present not only in child sexual abuse investigations, but in abuse and neglect cases in general in Minnesota. During 2012 in Minnesota, African American and American Indian children were 6 times more likely to come in contact with child protection workers for any kind of reported abuse or neglect (Minnesota Department of Human Services, 2012) and were five times more likely to be removed from the home as compared to Caucasian children (Rockymore, 2013). Although the exact reasoning behind decisions regarding removal is not known, it

is important to note that children with unsupportive families were also significantly more likely to be removed, when controlling for the child's race/ethnicity. On a positive note, however, families in the current study also received more services if they were rated as being less supportive, indicating a recognition that repairing the conditions that lead to the lack of family support or the child's removal, as being important. It is unknown how long the children remained out of home or specifically what other supports the families were able to access.

Overall, aligning with implications for practice in research on the overrepresentation of children and families of color in the child welfare system, there are several implications for practice. Cultural competence is essential for social work practice, especially for child protection workers. Within the state of Minnesota, a recognition for addressing disparities for children of color within the child welfare system has led to several initiatives including practice guidelines for working with African American families (Rockymore, 2013) and developing on-going training opportunities on cultural competency for child welfare workers and resources for families (Minnesota Department of Human Services, 2014). Both the practice handbooks and trainings emphasize culturally responsive services using strengths-based practice. These initiatives are a step in the right direction and evaluations should be conducted to see whether these initiatives have helped reduce overrepresentation of children of color within the child welfare system and have improved engagement of families with the child welfare system.

Preventative services should be implemented with families who are involved with CSA investigations, whether their cases go to child protective services or not. From a

study with child welfare professionals, Chibnall et al. (2003) found that professionals overwhelmingly recommended more effective early interventions with at risk families as well as community based prevention services targeting different cultural groups. This may help reduce the stigma for families of color from seeking out supportive services and mental health treatment.

Family engagement and service assessment. An important implication for practice highlighted in the present study is that children with unsupportive families have different outcomes than children with highly or somewhat supportive families. These differences include a significantly more likely tentative disclosure, more likely referrals for services, and more likely out of home placement. It does appear that since these families are receiving more referrals for basic needs services that they are being assessed for their overall needs. However, based on limited information in this study, it is unclear how thorough the assessment is and whether families are actually receiving the help they need through these referrals. Within the assessment process, an increased emphasis on engaging the family throughout the investigation process in a supportive manner is needed. Although engagement with the family is usually restricted prior to the forensic interview so that family members don't intentionally or unintentionally influence the child's statement, families should be engaged during the forensic interview at the CAC and afterwards. Families should be able to ask questions and become comfortable with the investigation process. Transparency in the process may help families feel more comfortable in engaging with service providers. This elevated level of engagement may help families provide accurate and additional information for the overall situation at

hand, ultimately helping the child and family heal together as they process the disclosure and investigation.

Implications for Future Research

Based on previous research and findings from the present study, there are several recommendations for directions for future research. As demonstrated within previous chapters, there is a critical need for more studies about disclosure during forensic interviews in general and more studies on outcomes after disclosure during investigations (for a full discussion on the gaps within the literature, see Chapters 3 and 6). Within the topic of disclosure during forensic interviews, more studies need to be conducted. This research should include a special emphasis on understanding disclosure and the role of a child's race/ethnicity and culture. In addition, the role of family support and disclosure during forensic interviews needs to be examined. Within the topic of outcomes in child protection cases after disclosure during forensic interviews, there are similar recommendations. More studies need to be conducted with an emphasis on understanding the role of family support and engagement and how a child's race/ethnicity influences decision making in services and placement. Finally, the role of family support and engagement within prevention programs and policies needs to be examined. Each of these recommendations is discussed in further detail below.

As previously mentioned, research on disclosure of CSA during forensic interviews needs to expand. Studies with larger, random samples are needed. Due to constraints on resources and access to records, most studies, including the present study, only include samples with a few hundred cases. Some studies include a random sample,

but many use a non-random sample such as the present study. Studies should also be conducted in a larger geographic area, including samples from both urban and rural areas and within the context of the United States and in other countries with similar systems.

Child characteristics and disclosure during forensic interviews have been examined some in previous studies, such as a child's age and gender. However, other characteristics have been under examined. These include a child's disability or mental health diagnosis and disclosure and a child's race/ethnicity and culture and disclosure during investigations. Research on a child and family's race/ethnicity and culture and disclosure during investigations is of particular importance as there are almost no studies on this issue. Language is another important aspect that has not been examined within the context of forensic interviews. Understanding the role and significance of these factors may lead to more appropriate interview techniques integrating cultural competence and sensitivity to the role of culture and language.

The role of family support is another area of research that needs more attention in the context of disclosure of CSA within forensic interviews. To date, no other studies have examined the role of family support and disclosure during investigations. While this study used a definition of family support previously defined in research, it would be prudent to engage CAC and child protection staff in learning about their definitions of family support and decision making. Such research could potentially aid in developing an assessment tool to understand the family situation and engage families right away. While it is likely that such tools already exist, it is unknown whether such tools are

designed to engage families to encourage their active involvement in the process of obtaining services for their children and themselves.

More research is also needed on understanding outcomes after forensic interviews occur. As previously discussed, most research has looked at prosecution in criminal court. While that is important research, it also misses a large number of children and families whose cases never reach criminal court. It also does not help establish the importance of understanding which children and families are receiving help, and where the gaps are occurring. In this study, it was apparent that family support and child's race/ethnicity were especially significant in service and placement decisions. Whether this is true across all areas of the country is unknown. Since there is very little research on outcomes, even descriptive research, more is needed to establish a baseline of service delivery and placement. Such information should be gathered across different geographic regions of the United States and in other countries. Larger, random samples should be obtained from CACs and child protection departments. This is necessary to understand whether there are patterns to which children and families are consistently receiving certain services, or not receiving services. Having this basic level of information will help inform practice and policy related to child sexual abuse investigations and prevention.

Finally, understanding the role of engaging families in prevention programs and policies is essential. It is evident in the literature on initial disclosure, and in the present study on disclosure during forensic interviews and outcomes afterwards, that family support is an extremely important factor. Children evaluate family support when

deciding whether to make an initial disclosure. Children also evaluate family support when they talk about abuse during forensic interviews. Child protection workers evaluate family support when making decisions about services and child placement. As previously discussed, prevention programs that incorporate an element of active parent participation are among the most effective. Yet little research has been done on exactly how parents and families are engaged in prevention programming, not just within schools, but within larger community awareness raising campaigns. Future research may be able to pinpoint the most effective strategies to engage families in prevention programming and to create dialogue between children and supportive parents, especially within communities where disclosure may be discouraged.

Conclusion

The disclosure of child sexual abuse within the United States continues to be a topic of interest among researchers due to the consensus that CSA is seriously underreported by children who experience sexual abuse. For decades, researchers have sought to understand the factors that influence a child to disclose CSA initially. However, is it just recently that scholars have shifted some attention towards understanding the factors that might influence a child to disclose, or not disclose, CSA within the context of a forensic interview or formal investigation. However, few studies have examined the factors that may influence a child to disclose actively or tentatively within forensic interviews. This distinction of the type of disclosure is important in that outcomes for a child disclosing tentatively could be similar to those of a child who does not disclose; a tentative statement could mean that the child is viewed as uncooperative or

not credible and the case might not progress to court or the child and family may not receive services they need to recover. Therefore, understanding different types of disclosure within the context of the forensic interview process is of vital importance. Understanding disclosure occurs across many levels: at the level of the individual child, the circumstances of the abuse, and the level of family support.

The purpose of the current study was to understand whether child characteristics and contextual factors significantly predict both how children disclose sexual abuse during forensic interviews and service outcomes in child protection cases. By adding to existing knowledge on how contextual factors and family support influence disclosure, this research sought to understand whether certain children are more reluctant to disclose. The three research questions of this study included: (1) How do child characteristics, factors related to the alleged abuse, and family support influence whether a child will disclose sexual abuse actively or tentatively during the forensic interview?; (2) Are family service outcomes in child protection cases predicted by child characteristics, abuse specific factors, and family support?; and (3) Are family living situation outcomes in child protection cases predicted by child demographic characteristics, abuse specific factors, and family support? The current study adopted frameworks related to the process of CSA disclosure and social exchange theory to focus on the various factors children may consider when they consider disclosing with a forensic interview.

This study examined several outcomes for children disclosing within a forensic interview at a Children's Advocacy Center in Minneapolis, MN. First, the outcome of disclosure was examined; either active or tentative disclosure. Other outcomes in child

protection cases included counseling for the child, referrals for basic needs services for the family, child placement after the forensic interview, and whether a safety plan was implemented in the home. Several categorical variables were used to examine each of the outcomes and included child demographic characteristics, abuse specific factors, and level of family support. Overall, there were several significant findings for each of the outcomes. However, the outcome of child placement did have issues related to adequate sample size and power and the findings for that outcome should be considered exploratory. Regardless, the findings do help broaden the scope of knowledge of disclosure of CSA during forensic interviews and outcomes in child protection cases and may stimulate future research on this topic.

There were several significant findings in this study. For the outcome of disclosure, Multi/Bi-racial children were significantly more likely to tentatively disclose during the forensic interview. The type of initial disclosure prior to the forensic interview also significantly predicted disclosure during the forensic interview. Abuse by an adult and lack of family support significantly predicted a child's tentative disclosure within the forensic interview. For outcomes within child protection cases, children were significantly more likely to receive counseling if they had experienced more severe abuse and had unsupportive families. Similarly, children's families were significantly more likely to receive referrals for basic needs services if the child experienced more severe abuse, had an unsupportive family, and were abused by a related perpetrator. Children were significantly more likely to be removed from the home if they were African American or Multi/Bi-racial, had an unsupportive family, and who were related to the

perpetrator. However, as mentioned previously, findings related to child placement should be considered exploratory as there were issues with adequate power and overall effect. Children were significantly more likely to have a safety plan implemented in the home if they were Hispanic, experienced more severe abuse, and were related to the perpetrator. The child's age was significant for disclosure and safety plan implementation, but had a very small effect as the odds were very close to 1. The child's gender and mental health diagnosis/disability were not significant for disclosure type or outcomes in services or family living situations. Perpetrator threats were not significant in relation to any of the outcomes of disclosure or outcomes in services or family living situations.

Overall, the findings may contribute more knowledge to the small existing body of research on CSA disclosure within forensic interviews and provides new information to the existing gaps within the literature. However, there were several limitations. The limitations in this study are common limitations in any kind of field research, especially when examining disclosure of sexual abuse during forensic interviews. These limitations included a small, non-random sample with some findings producing small effects, reliance on gathering data from existing case files and forensic interviews that may have contained inaccuracies, and the use of content analysis instead of a validated measure.

Despite these limitations, there are several implications for child welfare policy and for social work practice. First, findings from this study show that disclosing tentatively is a common occurrence for children when participating in a forensic interview. One third of children in this study disclosed tentatively. Because few studies

on a comparison between active and tentative disclosure during forensic interviews exist, it is likely that this information is not being emphasized during court proceedings. Findings from this study, and findings from similar studies in the future, can help establish baseline percentages for how frequent tentative disclosures during forensic interviews are. Findings from this study are also important in creating more awareness and understanding, both the commonality and factors related to tentative disclosures within forensic interviews, for decision makers creating and amending policies within organizations investigating child sexual abuse allegations. CPS workers normally conduct one interview and if not other confirming evidence emerges after one interview, the CPS worker will usually deny the case (Child Welfare Information Gateway, n.d.). If a child discloses tentatively, their case may be denied without other evidence. However, findings from this study may help inform policy for understanding that a tentative disclosure is both common and normal for children, especially for children in specific circumstances (unsupportive families, abuser is an adult, etc.). This awareness about tentative disclosure may create a chance in policy to allow for more opportunity for CPS workers and law enforcement to continue with an investigation when policy might not support the continuation with a case otherwise.

Implications for social work practice include a greater emphasis on understanding the disclosure process, and understanding tentative disclosure, within social work education programs and trainings on working with children who have been sexually abused. There is also a great need for including a strong emphasis on cultural competence within forensic interviews; both within the initial trainings as well as in

subsequent refresher trainings. The National Children's Alliance has set forth recommendations regarding diversity and cultural competency within Children's Advocacy Centers in the United States. Children's Advocacy Centers should take special note of these recommendations and evaluate whether their center is fully meeting the needs of diverse children and families who come to the centers for forensic interviews and supportive services. There is also a need for child protection cases to examine cultural competence within practice and for the overall structure of placement decisions to pay close attention to outcomes for children who have been sexually abuse. Within the state of Minnesota, a recognition for addressing disparities for children of color within the child welfare system has lead to several initiatives including practice guidelines for working with African American families (Rockymore, 2013) and developing on-going training opportunities on cultural competency for child welfare workers and resources for families (Minnesota Department of Human Services, 2014). Both the practice handbooks and trainings emphasize culturally responsive services using strengths-based practice. These initiatives are a step in the right direction and evaluations should be conducted to see whether these initiatives have helped reduce overrepresentation of children of color within the child welfare system and have improved engagement of families with the child welfare system. Other states should consider adopting similar initiatives.

Helping children and families disclose sexual abuse allegations is a difficult task and requires adequate resources across several levels. More efforts to educate children, parents, and community members to help de-stigmatize sexual abuse and create more

dialogue opportunities for disclosure are needed. More research on understanding sexual abuse disclosure during forensic interviews and outcomes afterwards are also needed. Services working with children and families must be supportive and understand the complexities associated with disclosing this type of abuse. For children contemplating a disclosure, it may be a decision they consider for several months or years. Any ways in which the current systems, practices, and policies can improve to make the process easier for children and families to disclose sexual abuse will be a step in the right direction.

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Appendix A
Coding Sheet for Case Files and Video-Taped Forensic Interviews

Interview number:	
Date of Interview	
Interviewer	
Child Gender	
Child Race/Ethnicity	
Child Age	
Child Disability or MH diagnosis	
Relationship of Alleged Perpetrator to Child (related, unrelated, adult, peer)	
CSA allegation (exposure, fondling, oral, penetration)	
Disclosure Statement	
Type of Disclosure (Active, Tentative)	
Perpetrator threats, bribes or manipulation	
Family Support criteria	Believed child (yes or no) Emotional support (yes or no) Protective action (yes or no) Reported abuse to hotline or police (yes or no)
Family Support (high, some, no support)	
Prior disclosure to whom?	
Delayed disclosure (prior to the interview)	
Circumstances of disclosure (behavioral, witnessed, verbal, perpetrator confession, medical findings)	