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Factors Associated with Return to a Child Advocacy Center for a Subsequent Sexual Abuse Allegation: A Longitudinal Analysis

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FACTORS ASSOCIATED WITH RETURN TO A CHILD ADVOCACY CENTER FOR A SUBSEQUENT SEXUAL ABUSE ALLEGATION: A LONGITUDINAL ANALYSIS

by

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Child sexual abuse is a widespread problem impacting substantial numbers of youth (Finkelhor, Shattuck, Turner, & Hamby, 2014). There are many factors that make telling someone about sexual abuse difficult for children, which can mean disclosures are delayed and children are at-risk longer. After initial victimization, there is increased risk for children to experience subsequent sexual abuse victimization (Pittenger, Pogue, & Hansen, 2018). Using the framework of Bronfenbrenner's bioecological model, the present study examined predictors to distinguish children who are at the highest risk of returning to a Child Advocacy Center (CAC) for a subsequent sexual abuse referral. It also explored factors predicting that children will disclose sexual abuse or present with corroborating evidence of abuse. The bioecological model includes person-specific factors, microsystem (e.g., family) factors, and exosystem (e.g., community) factors.

Case files of 4,971 youth who presented to a CAC for an initial sexual abuse referral between 2002 and 2012 were examined to identify factors across contextual levels. Almost one in five children experienced a subsequent sexual abuse referral and returned before 2017. Across all contextual levels, the following factors were associated with a return to the CAC: younger age, female gender, a mental health diagnosis, family history of substance abuse and/or domestic violence, mental health treatment, and lower

neighborhood income. Predictors of disclosing abuse during the forensic interview included: older age, female gender, a mental health disorder, nonfamilial perpetrator, familial substance abuse and/or domestic violence, and therapeutic involvement.

This study adds to the literature on child sexual abuse victimization and disclosure rates in addition to identifying factors that can be used to determine a child's risk level for subsequent referrals. If the highest-risk children are identified and interventions are provided to mitigate risk, the need for subsequent referrals may decrease. The implications for CACs are discussed as well as techniques which have been developed and show promise at assisting children to disclose abuse (e.g., extended forensic interviews).

DEDICATION

To my mom,

Kristin Beck Pogue,

whose faith in me never faltered.

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To all of my family and friends, I could not have done this without you. Thank you for your love and support in all of my endeavors across the years.

To Joe, thank you for your faith and love.

TABLE OF CONTENTS

CHAPTER I: INTRODUCTION AND LITERATURE REVIEW

Child sexual abuse (CSA) is a worldwide problem with significant negative consequences both at individual and societal levels. Over the course of decades, research has widely demonstrated that children who experience CSA are at increased risk for the development of symptoms of psychopathology including symptoms of post-traumatic stress disorder (PTSD), depression, anxiety, substance use, and behavioral concerns including inappropriate sexual behaviors (for reviews see Kendall-Tackett, Williams, & Finkelhor, 1993; Maniglio, 2009; Putnam, 2003; Tyler, 2002). Emerging evidence suggests that child maltreatment, including CSA, also impacts the development of the nervous and immune systems, with traumatic stress linked to biological changes and dysfunction in important systems such as the hypothalamic-pituitary-adrenal (HPA) axis and brain development (De Bellis, Spratt, & Hooper, 2011). By improving the identification of children who are at risk for experiencing CSA, psychological research could play a significant role in reducing the number of children who are negatively impacted by the consequences of CSA each year.

The definition of CSA has fluctuated over time, adding to the difficulty of studying the phenomenon and comparing results across studies which used different inclusion criteria for abuse. For example, there are different categorizations of sexual abuse that researchers can choose in their consideration of child sexual abuse victims: contact sexual abuse (further divided into penetrative abuse and nonpenetrative abuse) and noncontact sexual abuse (Finkelhor, 1994). The age difference between the perpetrator and the victim has also been a point of discussion regarding inclusion criteria, with some researchers believing that sibling on sibling sexual contact could be considered

to be within normal exploratory behavior while others believe that sibling interactions should be considered as abusive as adult on child sexual abuse (Ascherman & Safier, 1990; Cyr, Wright, McDuff, & Perron, 2002; Laviola, 1992). Cyr and colleagues (2002) found that girls whose perpetrators were siblings (rather than fathers or stepfathers) were more likely to have experienced penetration as part of the abuse. They did not find differences in the distress levels reported by the victims based on the relationship to the perpetrator (brother or father), indicating that intrafamilial abuse between siblings should not be disregarded. The Child Abuse Prevention and Treatment Reauthorization Act of 2010 (CAPTA) definition of child abuse and neglect refers to: "Any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act which presents an imminent risk of serious harm" (Child Welfare Information Gateway, 2014). An inclusive definition of sexual abuse that also includes abuse severity, relationship to perpetrator, duration of abuse, and other relevant factors allows research to capture a better understanding of the sequelae of the abuse. The official CAPTA definition of sexual abuse includes:

> 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 (Child Welfare Information Gateway, 2014).

CSA is a widespread phenomenon that can have detrimental impacts on children's social, emotional, psychological, and neurological and physical health (De Bellis et al., 2011; Putnam, 2003). CSA victims display a heterogeneity of response, with some victims showing minimal problems with quick return to pre-abuse functioning and others having clinical-level symptoms of distress (Friedenberg, Hansen, & Flood, 2013). Experiencing abuse has been associated with a wide array of negative consequences including mental health, physical health, educational attainment, drug use, risky behaviors, and it is associated with an increased risk of experiencing a sexual assault during adulthood (Davidson & Omar, 2014).

Accurate prevalence rates for CSA are difficult to attain due to underreporting and methodological problems in research, although a more recent study by Finkelhor, Shattuck, Turner, and Hamby (2014) found that 26.6% of 17-year-old females and 5.1% of males reported having experienced CSA at some point in their lifetimes. Other estimates report approximately 25% of females and 16% of males experience unwanted sexual contact prior to age 18 (Centers for Disease Control and Prevention, 2010). The assertion that these numbers are only the "tip of the iceberg" is founded by retrospective reports completed by adults which indicate substantially higher rates of CSA compared to the official reports of abuse that were reported to and handled by child abuse agencies (MacMillan, Jamieson, & Walsh, 2003). Putnam (2003) reported that community samples generally range from 12% to 35% of women and 4% to 9% of men reporting some form of sexual abuse before the age of 18. MacMillan and colleagues (2003) found that younger children in lower socioeconomic status families were more likely to have reported the abuse to the authorities if they were involved in Child Protective Services

(CPS). Believing that only those involved in the system have experienced abuse is incorrect; many children experience CSA and never disclose. Finkelhor (1994) found that approximately half of all children who experience CSA disclose the abuse to someone. Children who are officially identified as having experienced CSA must have told someone who believed them and who reported it to the authorities, who then took the appropriate steps to follow up with the disclosure (Collin-Vézina, Daigneault, & Hébert, 2013). Therefore, there are many cases of CSA that are not brought to the attention of the appropriate authorities and there are many children who do not receive needed services (e.g., removal of the perpetrator's access to the child, mental health services, family support).

Finkelhor, Ormrod, and Turner (2007) provided support for the proposal that victimization is better conceptualized as an ongoing condition rather than separate, unique events within childhood and adolescence. With a sample of more than 1,400 participants ages 2 to 17, the researchers explored whether experiencing a form of victimization increased the risk for subsequent victimizations. They included several kinds of victimization (e.g., sexual victimization, physical assault, peer or sibling victimization) and found that children who experience CSA were 6.9 times more likely to experience another incident of CSA within one year compared to children who did not experience CSA (Finkelhor et al., 2007). As children develop in environments where they are exposed to and experience CSA, the victimization may shape their development such that they are increasingly at risk for subsequent victimizations. The ongoing nature of the victimization likely increases the youth's risk of developing maladaptive coping

skills and other behavioral concerns, which may then contribute to the youth being at even higher risk for sexual victimization prior to and during adulthood.

Recognizing factors that are present for the children who are at highest risk for experiencing CSA and who are at highest risk for revictimization are crucial steps to the identification of and intervention for these youth. There is immense need to understand the systems at play in a child's development and the heterogeneity found in CSA victims' abuse experiences and symptomatology following abuse disclosure (Yancey, Hansen, & Naufel, 2011). The following section reviews the bioecological model because it provides a rich and comprehensive foundation from which to explore children's risk for CSA. Utilizing Bronfenbrenner's model adds to the research literature on CSA by maintaining a consistent approach to considering factors related to CSA. The study that will be described explores various factors that identifies children who are at the greatest risk for returning with a subsequent sexual abuse referral. It also identifies factors related to abuse disclosure during a forensic interview.

Bronfenbrenner's Bioecological Model

Urie Bronfenbrenner's development of the bioecological model beginning in the 1970s has had a large impact on the current understanding of human development across the lifespan (e.g., Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006) and can be particularly useful when discussing the impact of CSA on youth development. The idea that there are multiple contexts and levels of influence on development integrates different processes and interactions during childhood, adolescence, and adulthood. Bronfenbrenner continuously redefined and adapted his theory throughout his career to better capture human development.

The original Bronfenbrenner (1974) theory was called the ecological model and presented contextual influences on development as existing within nested systems that interact with each other as the individual develops. *Microsystems* refer to the influences that directly interact with the individual, *mesosystems* are the interactions between social microsystems (e.g., intersection between home and school environments), *exosystems* are the environmental influences (e.g., structural, institutional, or political) that impact the individual despite the individual not directly interacting with them, and the *macrosystem* is the cultural context (e.g., cultural beliefs and values) in which the individual lives. The original ecological model did not recognize the importance of the child's personal characteristics and the influence that the person has on the systems with which they interact throughout development.

Due to the model's name changes as Bronfenbrenner further developed it, the research literature that has grown around the models refers to it based on the specific model developed at the time. Researchers have also chosen different models to use, without always recognizing more recent updates to the theory (Tudge, Mokrova, Hatfield, & Karnik, 2009). The final model that Bronfenbrenner developed is called the bioecological model, which is described next and which provided the structure for this study (Bronfenbrenner & Morris, 2006).

The bioecological model of human development consists of four principal components: Process – Person – Context – Time (PPCT), all of which are fluctuating and interacting with each other (Bronfenbrenner & Morris, 2006). Process refers to proximal processes, which are the interactions between the individual and the environment over time and are considered the primary means for human development (e.g., parent-child

interactions, solitary and group play). Person refers to the individual's specific characteristics which can influence the proximal processes. According to Bronfenbrenner and Morris (2006), Person is believed to be the most instrumental for the individual's development because of its ability to shape the proximal processes occurring through development. There are three characteristics of the Person component which have been highlighted as significant for development: demand characteristics, resource characteristics (e.g., ability status, experience, knowledge, skills), and force characteristics (e.g., personality and behavioral factors that influence the social environment around the person). Context refers to the environments that are either closer or more removed from the individual's experience and which directly or indirectly impact the child's development (i.e., microsystem, mesosystem, exosystem, macrosystem). Time refers to the time period during which the child is developing, the time at which an event occurs in the child's development, the length of time of an event, and other larger national events (e.g., the Great Depression) that could define a generation by shaping development (Bronfenbrenner & Morris, 2006). Proximal processes – the person, the context in which they develop, and the time in which they develop – all interact in ways that direct a child's development (Tudge et al., 2009).

Applications of the Model

Bronfenbrenner's model has been highly influential and has been applied to better understand the etiology and development of child maltreatment over the decades (e.g., Belsky, 1989, 1993; Messman-Moore & Long, 2003; Pittenger, Huit, & Hansen, 2016; Pittenger, Pogue, & Hansen, 2018). As noted above, the following research reviewed often refers to Bronfenbrenner's ecological model instead of the bioecological

model due to the different time periods in which the research was conducted and the status of Bronfenbrenner's theory at the time. Belsky (1989) discussed child maltreatment in general rather than CSA specifically, but he presented the idea that the youth's individual characteristics (ontogenic level), caregiver and family characteristics (microsystem level), the community (exosystem level), and broader cultural values (macrosystems) must all be considered when studying the etiology of child maltreatment. Acknowledging the various levels involved in the child's life is important for recognizing risk factors for CSA because children do not develop in a vacuum and many systems are at play.

Researchers have also applied the ecological perspective to the experience of sexual revictimization in adults after sexual abuse or assault (Grauerholz, 2000) and more recently to sexual revictimization within childhood (Pittenger et al., 2018). Due to the limited amount of research that has been conducted about revictimization within childhood, much of our understanding stems from adult revictimization literature. For example, Grauerholz (2000) explained that the ontogenic level includes personal factors such as initial abuse circumstances, presence of psychopathology, and other life experiences that influence the risk for sexual revictimization. At the microsystem level, women who were sexually abused as children may be at higher risk for subsequent revictimization as adults because they may have greater exposure to potential perpetrators and to more aggressive perpetrators (Grauerholz, 2000). At the exosystem level, Grauerholz (2000) found that low socioeconomic status was a primary risk factor for experiencing CSA. At the macrosystem level, Grauerholz (2000) highlighted the cultural tendency of society to blame the victim of sexual abuse and endorse the belief that CSA

victims are damaged. The ecological model allows for a wide-reaching approach to understanding influences on victimization and revictimization across the lifespan.

Following Grauerholz's (2000) presentation of the ecological model related to sexual revictimization in adults, Messman-Moore and Long (2003) reviewed the recent literature of CSA and adult sexual revictimization and argued that the ecological model is the best available as a foundational, organizing theory. Rather than continuing to focus research only on the individual characteristics of the victim (e.g., characteristics of initial CSA experience, presence of other forms of abuse, psychological symptoms following the abuse) which may inadvertently foster the belief that the victim shares blame in the event of victimization, these researchers believed that it is essential to consider the entire picture when exploring factors related to victimization and revictimization. Messman-Moore and Long (2003) argued that considering the characteristics of the perpetrators is needed, given that the type of perpetrator (e.g., intrafamilial or extrafamilial) may influence the risk factors involved. A broader view is necessary to fully conceptualize the events which occur in a child's life before and after victimization and which place them at risk as adults.

Much of the research conducted in the area of revictimization has focused on revictimization in adulthood rather than during childhood. However, Pittenger and colleagues (2018) applied Bronfenbrenner's ecological model to CSA victims when they explored sexual revictimization (defined as CSA by a different perpetrator after an initial sexual victimization) within childhood with a large archival sample of 1,915 youth interviewed at a Child Advocacy Center. The ecological model allowed the authors to systematically explore factors related to risk for revictimization in the sample across all

of the model's levels. For example, within the ontogenic level, younger children, being female, and having an identified mental health problem at the initial victimization were all significantly associated with experiencing revictimization. Regarding factors in the microsystem level, having a non-caregiving adult in the home and domestic violence within the family were significantly correlated with revictimization. Within the factors considered in the exosystem level, youth residing in neighborhoods with significantly lower household income and where fewer adults had obtained a high school diploma were at an increased risk for revictimization. The ecological model is well-suited to advancing research in the field of identifying factors associated with risk for experiencing revictimization in youth.

Applying the Bioecological Model to CSA

Building upon the results from Pittenger and colleagues (2018), the present study used the bioecological PPCT model to organize the exploration of factors as they relate to sexual victimization, revictimization, and child's disclosure status. Due to the extensive number of factors that are part of the proximal processes of a child's development and the breadth of the literature, the scope of the paper does not allow for an exhaustive list of factors involved in risk for child sexual abuse to be discussed. Whenever possible, the research related to sexual victimization and sexual revictimization is reviewed in the context of the PPCT levels. In addition, research regarding factors related to abuse disclosure is reviewed whenever possible because of the importance of the child's disclosure during a forensic interview and the potential ramifications of disclosure for the child (e.g., legal, mental health treatment, family intervention). If CSA literature is not available or limited, relevant information regarding other forms of child maltreatment and

victimization are discussed. Consistent with the process of applying a CSA-related research area to the bioecological model that was outlined by Brandt (2014), the review explores significant variables that have been identified in the research literature and organizes them within the model's levels. However, due to the interwoven nature of the contexts and the complexity of the many interacting factors in a child's development related to CSA, not every factor is described in every context that it could possibly be considered relevant. Areas that need additional research for a more complete examination of the bioecological PPCT model regarding risk for CSA are identified.

Process

Bronfenbrenner and Morris (2006) considered proximal processes as the central piece to understanding the PPCT model. These processes need to be viewed within the framework of the person's personal characteristics, their environmental context, and time. The following propositions by Bronfenbrenner and Morris (2006) further describe proximal processes.

Proposition 1

> Especially in its early phases, but also throughout the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of *time.* Such enduring forms of interaction in the immediate environment are referred to as *proximal processes.* Examples of enduring patterns of proximal process are found in feeding or comforting a baby, playing with a young child, child-child activities, group or solitary play, reading, learning new skills, athletic activities, problem solving, caring for others in distress, making plans, performing complex tasks, and acquiring new knowledge, and know-how (p. 996).

Proposition 2

> The form, power, content, and direction of the proximal processes effecting development vary systematically as a joint function of the characteristics of the *developing person;* of the *environment*—both immediate and more remote—in which the processes are taking place; the nature of the *developmental outcomes* under consideration; and the social continuities and changes occurring over *time* through the life course and the historical period during which the person has lived (p. 996).

Person

Demand characteristics. The personal and observable characteristics that the child brings to any situation or interaction are demand characteristics (Bronfenbrenner & Morris, 2006). Examples are age, gender, and ethnicity, psychosocial functioning, and sexualized behaviors.

Age. The child's age at which they were identified as at risk for abuse (whether that was due to their own self-disclosure or due to a concern that abuse may have occurred) and the age at which the abuse may have occurred are both relevant to CSA. A National Crime Victimization Survey reported that adolescent females are at the highest risk for experiencing sexual victimization (Bureau of Justice Statistics, 2013). Age also relates to the identification of sexual abuse because the types of behaviors used to identify risk change as a child develops. For example, due to limited communication abilities and therefore the child's inability to actively disclose abuse, the presence of inappropriate sexualized behaviors may be more commonly used to identify risk of CSA in very young children.

Regarding sexual revictimization, retrospective studies with adults who experienced initial sexual abuse between the ages of six and ten were significantly more likely to experience a subsequent victimization compared to children who were ages three

to five at initial abuse (Simmel, Postmus, & Lee, 2012). Humphrey and White (2000) surveyed college women and found that experiencing sexual abuse before age 14 was significantly related to subsequent victimization during adolescence. Therefore, age may be a factor in exploring risk for sexual revictimization both within childhood and during adulthood.

Many children do not disclose abuse immediately when it occurs and may actually wait years before disclosing if they ever do disclose (Arata, 1998; Kogan, 2004; London, Bruck, Ceci, & Shuman, 2005). Research findings regarding the relationship between age and disclosure status have been mixed, with some studies finding that there is a linear relationship (Hershkowitz, Horowitz, & Lamb, 2005; Lippert, Cross, Jones, & Walsh, 2009) and others finding interactions between age and perpetrator relationship to child (e.g., Pipe et al., 2007). Leach, Powell, Sharman, and Anglim (2017) found that disclosure rates increased with age from 3 until 11 years old, and then decreased with age until 16 years old. Also, younger children were less likely to disclose to a professional if the perpetrator was intrafamilial or if the child had disclosed prior to the forensic interview (Leach et al., 2017; Pipe et al., 2007). Goodman-Brown, Edelstein, Goodman, Jones, and Gordon (2003) and Hershkowitz, Lanes, and Lamb (2007) found that older children were less likely to fully disclose immediately after the abuse compared to younger children, with both studies suggesting that the hesitancy relates to a greater understanding of the consequences of disclosure. Due to the importance of the child's disclosure during the forensic interview for legal action to be taken or potentially for child safety interventions to be instituted, age is clearly an important consideration when

identifying risk and understanding disclosure rates. Additional research is greatly needed to better understand the relationship between age and disclosure.

Ethnicity. Research findings have been inconclusive regarding rates of sexual abuse and revictimization across different ethnicities (Friedenberg et al., 2013). Sedlak and colleagues (2010) reported that African American females are at the greatest risk for sexual victimization, while Kalof (2000) found that Hispanic females experienced the highest rates of sexual abuse. Oshima, Jonson-Reid, and Seay (2014) found that African American children had a significantly higher risk for experiencing subsequent maltreatment after an initial incident and prior to age 18. Research in child sexual abuse should continue to explore differences in prevalence across cultures and ethnicities, and consider socioeconomic status as well.

There has been limited literature exploring the link between ethnicity and rates of disclosure in forensic interviews; only two studies were able to be located on the topic and the results were mixed. Springman, Wherry, and Notaro (2006) reported that African American children paired with African American forensic interviewers had higher rates of tentative disclosure (rather than full disclosure) during their forensic interviews compared to children who were not ethnoracially matched with their interviewer. The same study found that European American children were more than two times more likely to tentatively disclose compared with African American children. The second study by Anderson (2016) found that multiracial or biracial children were 5.1 times more likely to tentatively disclose than European American children (rather than actively disclose). More research is vital to better understand how ethnicity relates to children's disclosure status during forensic interviews for sexual abuse allegations.

Gender. According to prevalence rates in CSA research, females are more likely to experience CSA than males during childhood and adolescence (Tyler, 2002). Due to the gender discrepancy, gender differences are difficult to calculate. However, research suggests that females are at higher risk for developing a myriad of negative sequelae following victimization, which could influence their risk for future sexual victimization. Research indicates that females are more likely to report symptoms of depression, loneliness, feeling overweight, and to develop substance abuse problems during adolescence (Holmberg & Hellberg, 2010; Simpson & Miller, 2002; Shin, Hong, & Hazen, 2010). Limited research available on male CSA victims report that they are at higher risk of developing behavior problems such as delinquency, binge drinking, and attempting suicide (Beaver, 2008; Garnefski & Arends, 1998; Garnefski & Diekstra, 1997; Luster & Small, 1997).

Retrospective studies with adult samples indicate that the relationship between the child and the offender may differ between males and females. For example, Goldberg and Freyd (2006) found that women were at higher risk of being abused by an intrafamilial perpetrator, while men were more likely to experience abuse from an extrafamilial offender. Their results suggest that boys may be at higher risk than girls of being sexually abused by a non-familial adult (e.g., priest, camp counselor, coach). As discussed in the section above on abuse specific information, the relationship of the perpetrator to the child may also be related to risk for revictimization.

The literature is mixed regarding gender differences in disclosing CSA. For example, Goodman-Brown and colleagues (2003) found no gender differences in disclosure status. However, there is a common assumption that males are less likely to

disclose sexual abuse and that their reluctance may relate to social expectations to be "strong" or fears related to homophobia. The discrepancy between female and male sexual abuse victims has been suggested to be related to a difference in their willingness to disclose the abuse. In a retrospective study with a sample of 733 college students, Ullman and Filipas (2005) found that females reported a higher prevalence of CSA and were more likely to have disclosed the abuse prior to participating in the study than males. O'Leary and Barber (2008) found that males are less likely to disclose when the abuse occurs and to decide not to disclose for a longer period of time than females. This could be related to social pressures for males to not identify as a victim and to not seek assistance even when support is needed. As a result, males may be less likely to have access to mental health services in the aftermath of sexual victimization.

Experiencing CSA has been recognized as an event which can impact a child's developing gender identity (Brandt et al., 2013; Walker, Hernandez, & Davey, 2012). For example, victims may erroneously believe that experiencing sexual victimization by a same-sex perpetrator will cause them to identify as homosexual adults. Although there is no direct association between CSA victimization status and identifying as lesbian, gay, bisexual, or transgender (LGBT; Balsam, 2003; Dietz, 2001), a history of sexual abuse may be more prevalent among those who identify as LGBT (Arreola, Neilands, & Diaz, 2009). Additional research is needed to better understand how victims of all sexual orientations are impacted by CSA and how it relates to disclosure and revictimization status.

Child psychosocial functioning. CSA has been identified as a significant risk factor for the development of mental health symptomatology and disorders and

symptomology post-abuse, but a literature search was only able to identify one study considering children's mental health status prior to the abuse and the role it may play in increasing or mitigating risk. Turner, Finkelhor, and Ormrod (2010) used a national sample of almost 1,500 children ages 2 to 17. Their results indicated that children with high levels of internalizing and externalizing symptoms were more likely to experience sexual victimization (and other forms of victimization). The results were maintained even after controlling for prior victimization status and adversity. Specifically, early adolescents with high levels of both internalizing and externalizing symptomatology were at particularly high risk for sexual victimization (Turner et al., 2010). The authors suggest that feelings of insecurity and low self-concept (related to the internalizing symptoms) while the risk-taking behaviors (related to the externalizing symptoms) may help explain why the child is at increased risk for sexual victimization.

Related to having a mental health diagnosis or symptomatology, prior research by Pittenger and colleagues (2018) suggested that having an identified mental health provider at the time of a referral for a CSA-related concern is correlated with increased risk of sexual revictimization during childhood or adolescence. It may be that children who have a therapeutic relationship with a trusted adult mental health provider are more likely to disclose when CSA occurs again. A child who did not receive services upon their initial victimization may not want to disclose again because they may have seen it as unhelpful and only burdensome on their families. Another explanation for the relationship between having an identified provider and experiencing CSA could be related to mental health concerns (e.g., behavioral problems that the youth is

experiencing post-abuse, such as which may put the youth at increased risk of revictimization and is discussed next).

Identified as an intrapersonal cycle of risk, research has indicated that victims of child sexual abuse are at higher risk for experiencing a subsequent victimization compared to children who do not experience victimization (Messman-Moore & Long, 2003). Factors within the child which have been identified as risk factors for revictimization by previous research include risky alcohol and drug use, risky sexual behaviors, symptoms of PTSD, difficulties with accurate risk perception, and interpersonal challenges. However, a review of the literature found that research is mixed or limited regarding all of the above factors except sexual behaviors (Messman-Moore & Long, 2003). More research is necessary to clarify the role that these identified factors play in risk for revictimization.

It could be that children who have a mental health diagnosis and who are receiving mental health services during childhood are more likely to disclose CSA when it occurs and to have the disclosure reported to the appropriate authorities. It could also be the case that a child with an identified mental health problem could be at higher risk of being targeted as a victim of CSA. Due to the nature of CSA and the length of time that often exists between the abuse and the disclosure, it is challenging to separate pre- and post-abuse mental health problems. Additional research is needed to better understand the risk of pre-abuse mental health problems and how they are related to disclosure of the CSA.

Sexualized behaviors. Many children demonstrate sexual behaviors that are considered developmentally normal. Distinct from normal sexual behavior in children,

sexual behavior problems are typically defined as sexual behavior or sexual knowledge that is developmentally inappropriate for the child's age or which mimics adult sexual behaviors too closely. The most concerning sexual behaviors are termed "sexualized behaviors" by Kendall-Tackett and colleagues (1993) and these can include vaginal or anal object insertion, inappropriate levels of masturbation, sexual play with children's toys, asking adults or children to perform sexual acts, drawing genitals, and atypical knowledge of sexual behavior (Merrick et al., 2015). Approximately 30-40% of all children who have experienced CSA display such sexualized behaviors (Everson & Faller, 2012). Another reaction to CSA is to withdraw from all sexual behavior (even developmentally appropriate behavior), a reaction which may become more evident as the child enters later stages of development (Merrill, Guimond, Thomsen, & Milner, 2003). When a child is too young to be able to verbally disclose sexual abuse, the presence of such sexualized behaviors can be an indicator that there is potential abuse occurring.

Sexual behavior problems can act as red flags indicating to caregivers and professionals that a child may have experienced sexual victimization (Everson & Faller, 2012; Friedrich, Fisher, Broughton, Houston, & Shafran, 1998; Friedrich, Trane, & Gully, 2005; Kendall-Tackett et al., 1993). However, it is not just CSA that places a child at higher risk of displaying sexualized behaviors; Merrick et al. (2015) found that experiencing child maltreatment (i.e., physical abuse, emotional abuse, neglect, and CSA) was associated with an increased presence of sexualized behaviors at age eight. Other research has indicated that factors predicting sexualized behaviors in children referred for assessment include younger age, total number of hours in child care, witnessing domestic

violence, and family adversity (Friedrich et al., 1998; Friedrich & Trane, 2002; Kendall-Tackett & Watson, 1991). Therefore, it is clear that there are other factors at play in addition to exposure to CSA which could influence a child who displays precocious or aberrant sexual behavior. There is additional risk for young children who continue to display sexualized behaviors into middle childhood; sexualized behaviors at age eight mediated the relationship between exposure to child maltreatment before age eight and juvenile delinquency at age 12 (Merrick et al., 2015). There is a paucity of research regarding the presence of sexualized behaviors and subsequent disclosures of sexual victimization. Future research needs to explore the relationship between the presence of sexualized behaviors during early childhood and risk for sexual abuse at a later point in childhood.

Resource characteristics. According to Bronfenbrenner and Morris (2006), resource characteristics are biological and psychological characteristics that impact the child's engagement in proximal processes. They are often able to be inferred based on the visible demand characteristics (e.g., age, gender, health status). The two categories of resource characteristics are developmental liabilities and developmental assets. The former are factors that negatively impact the physical functioning of the child over development (e.g., birth defects, disabilities, and brain trauma). The latter are factors which can serve as positive or ameliorating influences on development (e.g., abilities, knowledge, skill, and experience).

Research literature incorporating developmental liabilities and developmental assets related to CSA tends to focus on specific factors that impact the child's risk for experiencing or functioning following CSA. For example, developmental disability

status has been shown to increase the child's risk for experiencing CSA compared to nondisabled peers (Randall, Parrila, & Sobsey, 2000) and also may be associated with an increase in the burden of care for caregivers following the experience of sexual abuse (Stewart, 2012). Boys with disability status in particular have been found to be at higher risk for CSA than would be expected based on prevalence rates among nondisabled boys (Sobsey, Randall, & Parrila, 1997). Another potential developmental liability is low IQ, with one study finding a relationship between lower IQ and CSA victims compared to children who did not experience CSA (Sadeh, Hayden, Sachs, & Civita, 1994). Instead of being a developmental liability, a child's intelligence has been identified as a developmental asset; studies that measured intelligence have suggested that children who are more academically and emotionally skilled demonstrate increased resilience after experiencing maltreatment (e.g., Harford, 2008; Jaffee, Caspi, Moffitt, Polo-Tomas, & Taylor, 2007). Experiences during childhood have the power to be liabilities or assets, with the ability to change the way the child's brain develops (e.g., Teicher, Samson, Anderson, & Ohashi, 2016) and impacting the child's risk for subsequent sexual victimization (Arata, 2002).

Force characteristics. Force characteristics are the third dimension of the Person context within the bioecological framework. They are important because they are the parts of the child's personality which directly allow or prevent proximal processes (Bronfenbrenner & Morris, 2006). In other words, they make up the child's character and disposition; as a result, they influence the child's behavior and the proximal processes that will occur throughout the child's development. These force characteristics are considered developmentally generative or developmentally disruptive

(Bronfenbrenner & Morris, 2006). The former support positive and prosocial proximal processes with characteristics including but not limited to inquisitiveness, engaging positively with others, self-regulation, delay of gratification, and the ability to strive for and attain long-term goals. The latter disrupt the child's ability to participate in proximal processes and include characteristics such as impulsivity, emotional dysregulation, aggression, lack of responsiveness, inattention, and disinterest. Children with a greater concentration of developmentally disruptive characteristics are likely to be at higher risk for a multitude of negative outcomes, even without the experience of CSA.

Research has supported a heterogeneity of response when a child experiences CSA; some children display high levels of internalizing and externalizing symptoms, others report subclinical levels of both, and still others either only exhibit internalizing symptoms or only exhibit externalizing symptoms (Brandt et al., 2013). Despite the range in emotional and behavioral symptoms following CSA, it can be considered a developmentally disruptive event for a child. Messman-Moore and Long (2003) suggest that CSA negatively impacts children's sources of resiliency, which can be argued puts the child at higher risk of developing mental health problems, displaying risky sexual behaviors, and having difficulty in interpersonal interactions later on in life (Lamoureux, Palmieri, Jackson, & Hobfoll, 2012). Another developmentally disruptive symptom that has been associated with CSA victims is poor self-regulation when it comes to managing anger and aggressive tendencies (Ford et al., 2000). Blaming oneself for the abuse is not an uncommon reaction reported by CSA victims and can be one reason that children do not disclose the abuse. Such self-blame has been associated with poorer psychosocial functioning, including symptoms of PTSD (Kolko, Brown, & Berliner, 2002). Not only

is the event of CSA itself developmentally disruptive for some children, it can also be related to a cascade of symptomatology that may become increasingly problematic for the child and family.

Context

Microsystem. The microsystem involves the direct interactions between the child and the others in their life, including family, friends, and networks of people who are active in the child's life. The vast majority of proximal processes are considered to fall within the microsystem because they are reciprocal, occur often, and adapt to be more complex as the child develops (Bronfenbrenner & Morris, 2006). According to the bioecological model, the family system is fundamental in influencing the development of a child (Bronfenbrenner & Morris, 2006). This level focuses on factors related to factors specific to the abuse, the family environment (e.g., number of people living in the home and their relationship to the child), parental psychopathology, and family history of substance use, sexual victimization, and domestic violence.

Abuse specific factors. Abuse severity, relationship of the perpetrator to the child, age at which the CSA began, age of disclosure, and caregiver supportiveness are some of the abuse specific factors that have been investigated in the research literature related to risk for revictimization and disclosure particularly. Loeb, Gaines, Wyatt, Zhang, and Liu (2011) considered a cumulative risk perspective that included summed composite scores of abuse severity, relationship of perpetrator to the victim, how recently the abuse occurred, and the age of the victim when abuse began in relation to revictimization in adulthood. They found that such a composite score is a better predictor of revictimization than studying each factor individually (Loeb et al., 2011). The

following abuse specific factors are included in the microsystem level in this review because they are viewed as having occurred to the child in the context of the sexual abuse.

Abuse severity. Abuse severity has been studied in terms of revictimization in particular, with the majority of studies suggesting that greater initial abuse severity is associated with an increased risk of subsequent victimization in both children and adults (Casey & Nurius, 2002; Simmel et al., 2012; Swanston et al., 2002). Research has also suggested an interaction between abuse severity and age of disclosure, such that more severe abuse occurrences were more likely to be disclosed by younger and school-age children, but not by adolescents (Kogan, 2004; Leach et al., 2017; Lippert et al., 2009). This could be because children may be more likely to identify more severe forms such as penetration as sexual abuse that needs to be disclosed to an adult.

Perpetrator relationship to child. The perpetrator's status as intrafamilial or extrafamilial has been explored in relation to victimization, revictimization, and disclosure. McCloskey and Bailey (2000) indicated that living with a stepparent is one known risk factor for experiencing victimization, however it should be noted that biological parents and siblings also sexually abuse children. Compared to victims of extrafamilial abuse, victims of intrafamilial abuse tend to have an earlier onset of abuse, a longer duration, and more physical injuries and mental health problems (Fischer & McDonald, 1998; Ullman, 2007).

Azzopardi, Madigan, and Kirkland-Burke (2014) found that the relationship of perpetrator to child did not predict disclosure during a forensic interview, but other research has suggested that children are less likely to disclose abuse if the perpetrator is

intrafamilial or lives in the child's home (Goodman-Brown et al., 2003; Hershkowitz, Lanes, & Lamb, 2007). Anderson (2016) found that children were more likely to disclose tentatively (rather than fully) and not immediately when the perpetrator was an adult instead of another child. Within their sample, children who had not disclosed prior to the forensic interview were less likely to disclose during the actual interview even when the abuse was witnessed by someone else or the offender confessed (Anderson, 2016). They suggest that this could be because the children are not ready to give the details about what happened to them. The author also discusses the imbalance in power and control when the perpetrator is an adult, which may contribute to the child's fear of negative consequences for disclosing (Anderson, 2016). When the offender lives in the home, the power over the child may be considered to be greater and may influence the child's readiness to disclose.

Age of initial CSA and age of disclosure. Casey and Nurius (2005) and Pittenger and colleagues (2018) suggest that younger age at the time of the initial abuse experience is correlated with an increased risk for revictimization. Similarly, Simmel and colleagues (2012) found that experiencing an initial abuse between the ages of six and ten predicted an increased risk for revictimization. Age at the time of the initial CSA experience has been significantly related to increased risk for revictimization in childhood (Pittenger et al., 2018). However, it should be recognized that younger children at their initial victimization and disclosure have more time to experience revictimization before becoming adults, which could be a contributing factor to the significant relationship (Pittenger et al., 2018).

It is not uncommon for children to delay disclosure for some time, even years, and an unknown number may not ever disclose the abuse (e.g., Goodman-Brown et al., 2003). Lippert and colleagues (2009) compared disclosure rates from children interviewed at Child Advocacy Centers and those interviewed in other settings, including only children whom another professional (e.g., medical staff, law enforcement) believed the sexual abuse had likely occurred. They found that age of the onset of the abuse predicted disclosure, with children who were age seven or older when the abuse began more likely to disclose than children who were younger than seven at abuse onset (Lippert et al., 2009). Younger children may not have developed the cognitive abilities to both recognize the sexual abuse as abusive and to understand that the forensic interview is intended to gather information about it in order to stop it from happening again. Azzopardi and colleagues (2014) examined forensic interviews to try to better understand child nondisclosures even when there was high suspicion that the sexual abuse occurred. Their results suggested that older child age predicted disclosure (Azzopardi et al., 2014). As discussed above, abuse severity may interact with age of disclosure such that older children may be more likely to identify more severe abuse as important to disclose (Kogan, 2004; Leach et al., 2017; Lippert et al., 2009).

Caregiver supportiveness. Caregiver support is an important aspect of the child's disclosure process and also in the child's functioning and adjustment following the disclosure (Azzopardi et al., 2014; Elliott & Carnes, 2001; Malloy & Lyon, 2006). Some research has indicated that victims of intrafamilial abuse are not believed as readily when they disclose during childhood (Ullman, 2007). When the offender was a relative, victims reported more symptoms of PTSD when they had delayed the abuse disclosure

and did not receive support from their caregivers (Ullman, 2007). There is some evidence that caregiver support can also be related to revictimization; when parents of prosecuted CSA cases did not act in support of the child following the disclosure, 60% of the children were victimized again (Sas & Cunningham, 1995). Caregiver support is also often needed for the child to receive mental health services (if the need is indicated by the child's adjustment) and evidence indicates that engaging the family in mental health services can decrease symptoms over the course of treatment (Sawyer & Hansen, 2014).

Family environment. The context within which children spend the most time is typically their immediate family, and the proximal processes that occur between the child and the family members are crucial in the child's development. Factors that have been investigated regarding CSA risk include the number of people living in the home, as well as the alleged perpetrator's relationship and living status. Two family-related risk factors identified include living with a stepfather and having an isolated family who moves residences often (McCloskey & Bailey, 2000). Finkelhor, Hotaling, Lewis, and Smith (1990) found that adult men reported higher rates of sexual abuse during childhood if they grew up in unhappy families and lived only with their mothers for a period of time. Adult women in their study reported higher rates of CSA if they had unhappy family lives and had a period of time with only one biological parent in the home (Finkelhor et al., 1990). Putnam (2003) documented that parental dysfunction is one of the risk factors for CSA, and parental dysfunction is a contributing factor to a child's family environment.

Regarding sexual revictimization rates and family environmental factors, Pittenger, and colleagues (2018) found that children living with non-caregiving adults

were more likely to be sexually revictimized within childhood by a different perpetrator. The significant relationship remained even after controlling for socioeconomic status (which is one explanation of why there may be non-caregiving adults in the home). One theory is that children whose families have high turnover in the people who are living in the home tend to have more exposure to potential perpetrators and may also have less supervision by a trusted adult when in contact with the unrelated adults. The study was not able to determine if the non-caregiving adult was the perpetrator, but that is a second potential explanation for the increased risk for revictimization.

Characteristics of the family environment such as whether the perpetrator is within the family or outside of the family have been explored in regards to CSA disclosure status. In cases of intrafamilial abuse, children tend to be less likely to disclose CSA than when the perpetrator is extrafamilial (Goodman-Brown et al., 2003). Age also plays a role in disclosure depending on the relationship of the perpetrator, with younger children in particular tending to disclose less often when the perpetrator is intrafamilial (Leach et al., 2017). The child's fear of negative consequences (e.g., disruption in the family, loss of income, moving residences and/or schools) may inhibit them from disclosing the abuse. The family environment and the relationship of the perpetrator to the child do appear to influence a child's willingness to disclose CSA.

Family history of sexual abuse, substance abuse, and domestic violence. There has been a great deal of interest in the intergenerational cycle of risk for sexual abuse, suggesting that risk for sexual abuse may be higher if a parent also experienced sexual abuse during their childhood. The theory is important to recognize because it provides a platform for understanding who is at higher risk and also provides an intervention point

to try to prevent the cycle from continuing. McCloskey and Bailey (2000) explored risk factors among preadolescent girls and found that the risk was 3.6 times higher that the child would be sexually abused if the mother had been sexually abused. Bowen (2000) found that 42% of the parents of children identified as at risk for having experienced CSA reported their own sexual victimization during childhood. Although the etiology may be varied, the literatures supports a relationship between parental sexual victimization during childhood and increased risk for child sexual victimization.

Parental substance use has also been examined in relation to risk for a child to experience CSA. When the researchers combined current maternal drug use and maternal sexual abuse history, the child was at the highest risk for experiencing sexual abuse herself (McCloskey & Bailey, 2000). Anda and colleagues (2002) used a retrospective approach and assessed these adverse experiences during childhood: emotional, physical, and sexual abuse during childhood, witnessing domestic violence, parental separation or divorce, and growing up with adults who abused drugs, had mental health problems, were suicidal, or engaged in criminal activity. Twenty percent of their large sample (9,346 participants) reported parental alcohol abuse, and they were at a significantly greater risk of having experienced every single one of the above adverse childhood experiences (Anda et al., 2002). Although not specific to CSA, their results indicate that there is increased risk for child maltreatment in general when co-occurring with parental substance abuse (Anda et al., 2002).

More attention has been paid in the research literature to the overlap between domestic violence in the home and risk for child sexual abuse in the past few decades (McCloskey, Figueredo, & Koss, 1995; Smith, Berthelsen, & O'Connor, 1997). The

research has suggested that domestic violence in the home and a child's exposure to domestic violence are related to risk for CSA (Bowen, 2000; Kellogg & Menard, 2003; Holden, 2003; McCloskey & Bailey, 2000). Bowen (2000) surveyed families with children who were suspected to have experienced CSA, and 54% of the families reported domestic violence in the home. Kellogg and Menard (2003) interviewed 164 children ages 7-19 who were being evaluated at a sexual abuse clinic, and 52% of the youth reported domestic violence in their home. For the child sexual abuse perpetrators who lived in the same home, 58% reportedly also physically abused their female adult partner (Kellogg & Menard, 2003). For the males living in the home who were physically abusive toward the children, half also sexually abused the children (Kellogg & Menard, 2003). In homes where domestic violence was reported, 86% of the children also reported physical abuse (Kellogg & Menard, 2003). Regarding disclosure, there was no relationship between sexual abuse disclosure and exposure to domestic violence in the home (Kellogg & Menard, 2003).

In conclusion, the evidence suggests that reports of a history of parental sexual abuse, substance use, and domestic violence within the home need to be recognized as risk factors for childhood sexual abuse. Additional research is needed to better understand how the variables impact children's willingness to disclose CSA and relate to sexual revictimization in childhood.

Involvement in mental health services. Although already noted above in the Person section regarding the child's psychosocial functioning as a risk factor for victimization, engagement with therapy services falls within the microsystem level as well. Relevant research will not be repeated (see above), but it is important to note that a

child who is involved with a mental health practitioner may be more likely to be identified as a child at risk than a child who is not engaged in therapy services. There may be a level of surveillance bias that increases the likelihood that the child will actually disclose additional allegations of CSA if it occurs when they are engaged in therapy services.

Mesosystem. According to Bronfenbrenner and Morris (2006), the mesosystem refers to the interrelationships between microsystems that impact the child. The following are two examples of microsystem-level elements that may interact with each other to influence the child's risk for victimization, revictimization, and willingness to disclose abuse. Due the paucity of research literature identifying factors within the mesosystem, the following ideas are presented for future research. They are relevant ideas built upon the factors that will be examined in the current study, but will not be able to be specifically tested due to limitations in the archival data.

Family-community. As proposed by Brandt and colleagues (2013), there may be cultural differences within families and communities that influence their ability to communicate about topics like CSA. A community's general values and beliefs regarding sexual abuse could also influence a child to disclose CSA or to refuse to disclose. For example, a youth may be less likely to disclose when living in a community where there is a known history of CSA victims not being believed. A family who maintains similar values may feel strongly that the abuse should be dealt with "within the family" and may not contact the appropriate authorities or seek services for the child. Parental support has been identified as a strong protective factor following CSA (e.g.,

Elliot & Carnes, 2001; Pintello & Zuravin, 2001), but community-level support and interactions between the two are directions for future research.

Family-therapy. The family and the child's mental health provider can work together to show support for the child. Sometimes, a child is referred to a mental health provider when a child does not disclose abuse during a forensic interview but there remains a significant concern that abuse did occur. For a child to work with the mental health provider, it requires the caregiver to be involved in many cases (e.g., transporting the child to sessions, participating in sessions as appropriate, believing that the treatment is worthwhile). The caregiver's commitment to the child receiving treatment is one indicator that the caregiver supports the child and is actively seeking professional help. Although apparently not yet examined in relation to child sexual victimization, revictimization, or willingness to disclose abuse, the interaction between the family and the therapist could be an area to explore for all three concepts.

Exosystem. According to Bronfenbrenner's bioecological model, the exosystem interacts with the child's more immediate contexts and therefore have the power to shape development in a more indirect manner (Bronfenbrenner & Morris, 2006). The child's community and neighborhood has been identified as a potential factor involved in risk for CSA and revictimization (Pittenger et al., 2018).

Community/Neighborhood. As previously reviewed by Pittenger and colleagues (2018), the research literature has identified certain characteristics within neighborhoods that are associated with increased risk for child maltreatment. For CSA prevalence in particular, higher prevalence rates have been found in neighborhoods lacking economic resources and social supports (Drake & Pandy, 1996; Ernst, 2000). It is possible that

such neighborhoods also have fewer resources to allocate toward helping children who have experienced CSA, which may mean that children who have been victimized do not receive services following their disclosure. Jaffee and colleagues (2007) indicated that children who live in neighborhood without adequate resources had more psychological problems following the experience of maltreatment.

Revictimization rates have also been explored in the literature based on community level factors. Finkelhor and colleagues (2007) found that children who moved to a neighborhood they perceived as "worse" than the previous one they lived in where more likely to report another victimization. Drake and colleagues (2003) found that children living in neighborhoods with annual median incomes less than $20,000 had higher rates of sexual revictimization. Pittenger and colleagues (2018) explored how the child's neighborhood median income and the average educational attainment for adults living in the child's zip code was associated with rates of sexual revictimization. Their results indicated that children were at higher risk of revictimization when living in neighborhoods where a higher proportion of adults had a high school diploma as their highest educational attainment (Pittenger et al., 2018). Children who were revictimized were in families with significantly lower household incomes, but the effect disappeared when education was accounted for in their model.

There is limited research exploring CSA disclosure status and community level factors. Anderson (2016) suggested that low income may be a contributing factor to children's tentative disclosure during a forensic interview. Although quickly becoming a discussion of microsystem level family factors, it is likely applicable to the broader neighborhood as well. Particularly when the child is older and when the perpetrator is a

source of financial support for the family, a child may be unwilling to disclose CSA during a forensic interview due to the understanding of the potential consequences for the family. Considering the broader community level's support for the victim, the child's perception of not being believed or not receiving support following the disclosure may influence their decision to disclose the abuse. For example, disclosing CSA in a small town can have wide-reaching consequences for victims based on the community's response.

Macrosystem. The macrosystem level in Bronfenbrenner's bioecological model refers to the larger cultural context that the child is developing within and the beliefs and values that the culture promotes. These beliefs and values can influence all of the other systems involved in the child's life (e.g., microsystem, exosystem); as an example, they can influence the way that others perceive the child's behaviors, or influence the way that the legal system provides consequences for a child sexual offender. Factors at this level tend to be abstract in nature and challenging to test empirically, particularly regarding how they influence children's development at the individual level.

Pittenger and colleagues (2018) discuss the little evidence that is available regarding how macrosystems are related to children's sexual victimization or revictimization. Drawing from the adult revictimization literature, Grauerholz (2000) discusses two macrosystem level constructs that may be implicated in revictimization in adulthood: traditional gender roles and victim-blaming attitudes toward sexual abuse victims. Both traditional gender roles and the belief that victims must be at some fault for having experienced sexual abuse are broad, overarching constructs. However, Pittenger and colleagues (2018) suggest that these two constructs alone likely impact

victim's functioning following sexual victimization by influencing the support they receive from others and the amount of guilt and shame they experience themselves post-abuse. Regarding disclosure, the same two constructs could be hypothesized to decrease the likelihood that males would disclose experiencing sexual abuse due to the traditional gender expectations for males. Male and female children may not disclose because they believe that they are at fault for the abuse and do not want to be in trouble or cause problems within their family.

In conclusion, it is very likely that macrosystem factors affect children's victimization, revictimization, and willingness to disclose sexual abuse. With future research studying the more individual microsystem level more closely, a clearer understanding may be garnered of the specific macrosystem factors that are most often involved with children's risk for sexual victimization.

Time

Within the bioecological model (Bronfenbrenner & Morris, 2006), the three levels of time are called micro-time, meso-time, and macro-time. Micro-time includes specific events that occur during the proximal processes of a child's life. Meso-time is the length of time during which the processes occur (i.e., days, weeks, months, years). Macro-time involves events that happen across the lifespan (e.g., across generations, which was known as the chronosystem in Bronfenbrenner's earlier models).

Proximal processes in a child's development are impacted by an incalculable number of events, which cannot be described here. Previous sections have already discussed events relevant to factors influencing risk for CSA, subsequent CSA victimization, and disclosure. Previous sections have also highlighted the most relevant

macro-time event, which has been named the intergenerational cycle of sexual abuse. This broader concept of time includes the child's parent's experiences, which have been reviewed as factors influencing the child's risk for CSA. Longitudinal study designs incorporate macro-time because they follow participates over a period of time in their development.

Summary

The bioecological model and the components of Process, Person, Context, and Time have been reviewed in relation to child sexual abuse. The variables that have been identified in the research literature and have been summarized above are considered to be the most relevant to the current study. The following section provides additional information regarding Child Advocacy Centers, one of which was the research site for the project.

Child Advocacy Centers

Child Advocacy Centers (CACs) are a nationwide network of non-profit organizations that are dedicated to preventing child abuse and coordinating care for victims and families (National Children's Advocacy Center, 2016). They facilitate trainings and conferences to bring awareness to child maltreatment for the public as well as offer support and services when a child is identified at risk for having experienced child abuse. The multidisciplinary aspect of the CAC model was developed during the 1980s with the intention of improving coordination and training among the many entities responsible for handling subsequent steps after a child makes an abuse disclosure or is otherwise identified as a potential victim. The effort continues to be to foster collaboration between law enforcement, child protective services, mental health

providers, medical professionals, and family advocates to best support the child and family. There are currently more than 950 CACs in the United States.

The CAC model is considered the best practice, particularly with CSA (Brink, Thackeray, Bridge, Letson, & Scribano, 2015). The initial assessment with children referred for sexual abuse is an important first step in determining the level of risk. In one study of high school seniors, 65% of girls and 23% of boys reported sexual victimization, but most had disclosed to a peer rather than to professionals (Priebe & Svedin, 2008). However, it is important that these children do disclose to professionals in order for the systems in place to protect children from perpetrators to function. According to the American Professional Society on the Abuse of Children (APSAC), the purpose of the forensic interview is to gather information to determine whether abuse has occurred and if so, by whom (APSAC, 2012). After an official report has been made, the forensic interview assesses the validity of the report. Forensic interviews completed by trained professionals at CACs in child-friendly and developmentally appropriate rooms are considered the best practice for talking with children who may be at risk of maltreatment (Brick et al., 2015; Cross, Jones, Walsh, Simone, & Kolko, 2007). The quality of the interview and the skill of the interviewer can be crucial to creating an environment where the child feels safe disclosing and therefore allows the professionals to have more ability to assess the level of risk. However, research suggests that approximately one-third of children do not disclose in forensic interviews even when there is strong reason to believe that CSA has occurred (Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006; Hershkowitz, Orbach, et al., 2007; Lamb, Hershkowitz, Orbach, & Esplin, 2008).

Multidisciplinary teams (MDT) within CACs meet to discuss all cases who present to the CAC and evaluate risk of abuse. The MDT discussion generally includes the forensic interviewer, mental health provider, and medical provider although Child Protective Services (CPS) caseworkers and law enforcement can be involved too. Brink and colleagues (2015) found that the MDT's determination of the likelihood that the child sexual abuse occurred was moderately associated with the CPS case worker's opinion about whether abuse occurred. One explanation for the only moderate association is that Everson and Sandoval (2011) found that CPS workers are more worried about false positives and are more disbelieving of child disclosures than law enforcement officials, attorneys, and forensic interviewers. Of the children who were determined to be high risk for having experienced abuse by the MDT but not by CPS, 11.5% returned to the CAC within the next five years with new concerns of maltreatment and 33% of those were for sexual abuse by the same perpetrator (Brink et al., 2015).

Purpose of the Present Study

The primary purpose of the present study was to identify factors predicting whether a child will return to a CAC for a subsequent sexual abuse referral. Regardless of disclosure status or substantiation status, recognizing the factors that place a child at a heightened risk of returning to a CAC for additional referrals can better inform interventions for the child and family during and after the initial visit. There could be greater sensitivity to risk and increased importance placed on referring the family for specific supports. It could also contribute to awareness to conduct thorough investigations. The study differentiated children based on disclosure and/or corroborating evidence status and the number of referrals to the CAC for sexual abuse. It

determined important differences between these groups (e.g., singly-referred children who disclose or have evidence, multiply-referred children who disclose at least once, singly-referred children who do not disclose or have evidence, and multiply-referred children who never disclose or have evidence), especially regarding factors that predict group membership at the initial referral.

The study addresses a gap in the literature regarding the identification of children who are at highest risk for sexual victimization in childhood by examining records from a Child Advocacy Center (CAC) with a longitudinal perspective. By exploring the records for all children referred for sexual abuse concerns over a span of 14 years, the study was able to identify factors across the bioecological model that are predictive of the child returning for additional referrals to the Child Advocacy Center. The children who were interviewed at the CAC can already be considered a higher-risk population of children, and this study allows for better recognition of those children and families who could benefit from additional resources or support following their initial visit to try to prevent future abuse. Included in the database were all children who disclosed or had corroborating evidence of sexual abuse, those who were engaging in sexualized behaviors with other young children who were interviewed to assess the presence of an adult perpetrator, and those who were too young to be interviewed (below age 3) but who had a medical exam completed at the CAC.

Much of the research literature surrounding sexual abuse is collected retrospectively from adults about their experiences as children, and less has been focused on the experience of male victims. The design of this study allowed for longitudinal and prospective analyses of both male and female children. Previous research (Pittenger et

al., 2018) included a portion of the data used in the current sample and they explored revictimization within childhood by a different perpetrator among children who either disclosed the abuse or had corroborating evidence indicating that the abuse did occur (e.g., witness to the abuse, offender confession). The current study was more inclusive than Pittenger and colleagues (2018) because all children who were referred to the CAC regardless of prior disclosure status were included to allow us to better understand the differences between all children brought to the CAC for sexual abuse referrals who do disclose and those who do not disclose, and their subsequent risk for returning to the CAC. The following aims and hypotheses were addressed in the course of the project.

Aim 1: Identify factors within the bioecological model that differentiate CAC-referred children based on number of referrals for sexual abuse, presence of disclosure/evidence, and whether disclosure/evidence occurred at initial or subsequent referral.

Although it can be argued that the children who are involved with a CAC are already at a higher risk for sexual abuse because not every child is brought to a CAC for a referral of child sexual abuse (and not all concerns lead to a child presenting to the CAC), children who are referred more than one time are likely at an even higher risk for experiencing abuse. For a child to be referred to the CAC, there must be other professionals or someone known to the child (e.g., child protection and safety workers, law enforcement, parents, teachers, or other mandated reporters of child abuse and neglect) who have concerns that the child has been sexually abused. Developing a better

understanding of factors present for children who are referred to the CAC more than one time is crucial for identifying those at highest risk of being referred again.

Sub-aim 1.a: Classify children into groups based on two dimensions: the number of referrals for sexual abuse and the presence of disclosure/evidence. Time of disclosure/evidence was not used for classification due to inadequate sample sizes when classifying children by three dimensions and into six groups. Of the children who disclose at some point, the vast majority of children disclosed at their first referral instead of waiting for subsequent referrals. Therefore, using the two dimensions of the number of referrals to the CAC for sexual abuse and whether the child disclosed during the forensic interview or presented with corroborating evidence, there were four categorizations of children presenting to the CAC for sexual abuse:

1. **"Single referral with disclosure/evidence":** Children who disclose sexual abuse or have corroborating evidence and do not return for additional referrals.
2. **"Multiple referrals with disclosures/evidence":** Children who disclose sexual abuse or have corroborating evidence at least one time and return for additional referrals.
3. **"Single referral with nondisclosure/lack of evidence":** Children who do not disclose sexual abuse and lack corroborating evidence and do not return for additional referrals.
4. **"Multiple referrals with nondisclosures/lack of evidence":** Children who do not disclose sexual abuse and lack corroborating evidence and

return for additional referrals but do not disclose abuse and lack corroborating evidence for all referrals.

Sub-aim 1.b: Explore factors related to number of referrals, presence of disclosure/evidence, and if disclosure/evidence occurred at initial or subsequent referral within each relevant level of the bioecological model. Factors from the bioecological model which were examined include those at the Person level and the Context level. Time was involved in the study due to the longitudinal and prospective design, capturing episodes of subsequent sexual abuse referrals to the CAC.

Person. At the child-specific level, factors considered included child's age, ethnicity, gender, mental health diagnosis, and presence of sexualized behaviors.

Hypothesis 1.b.1: Younger children have been shown to be less likely to disclose (Grandgenett, Pittenger, Dworkin, & Hansen, 2016), putting them at higher risk of returning to their family environment and being referred again if additional concerns arise. Younger children also have more time to return to the CAC because older children have fewer years before they age out of receiving services at the CAC. Therefore, it was hypothesized that younger children would be more likely to return to the CAC for additional sexual abuse referrals.

Hypothesis 1.b.2: Research has identified that girls are more likely to return to a CAC for additional sexual victimizations (Pittenger et al., 2018); therefore, it was hypothesized that girls would be more likely to return to the CAC for subsequent sexual abuse referrals.

Hypothesis 1.b.3: It was hypothesized that children with a mental health diagnosis at the initial referral to the CAC would be more likely to return for subsequent referrals to the CAC due to the increased risk for victimization (Turner et al., 2010).

Hypothesis 1.b.4: Although not all children who have been sexually abused display sexual behaviors and not all children who show sexual behaviors have been sexually abused (Everson & Faller, 2012), it was hypothesized that children with sexual behaviors would be more likely to return to the CAC for subsequent sexual abuse referrals.

Context: Microsystem factors. At the child's immediate environment-specific level, variables relating to the child's abuse specific factors, family environment, family history of sexual abuse, substance abuse, and domestic violence, and the presence of an identified mental health provider for the child at initial referral were explored for relationships to the child's number of sexual abuse referrals and the presence of disclosure and/or corroborating evidence.

Hypothesis 1.b.5. Children who disclose more intrusive and severe forms of sexual abuse at the initial visit would be more likely to return to the CAC for additional sexual abuse referrals compared to children who do not disclose abuse or who disclose less intrusive (e.g., non-penetrative) sexual acts.

Hypothesis 1.b.6. Chaotic family environments with non-caregiving adults living in the home have been associated with victimization (Pittenger et al., 2018). In chaotic family environments, sexual perpetrators may also have easier access to children due to less adult supervision and more adults who are in and out of the home (Kellogg & Hoffman, 1997). Therefore, it was hypothesized that children living with additional

adults in the home (e.g., parent's partner, adult extended family members, roommate) would be at increased risk of additional sexual abuse referrals to the CAC.

Hypothesis 1.b.7. Research has found that children in families experiencing high levels of conflict, substance abuse, and familial violence are more likely to be victimized more than once (Fargo, 2009; Finkelhor et al., 2007; Pittenger et al., 2018; Swanston et al., 2002). It was hypothesized that children who have a reported family history of substance abuse, domestic violence in the home, or the child witnessing domestic violence in the home would be more likely to return to the CAC for subsequent sexual abuse referrals.

Hypothesis 1.b.8. Pittenger and colleagues (2018) found that children with an identified mental health provider at the initial referral to the CAC were more likely to experience revictimization by a different perpetrator. A child who is already engaged in mental health treatment at the initial visit is likely to have behavior problems or mental health diagnoses, which may place the child at higher risk of additional referrals to the CAC. Thus, it was hypothesized that having an identified therapist at the initial referral would be associated with returning to the CAC for subsequent sexual abuse referrals.

Context: Mesosystems factors. Due to the complexity of identifying interactions between the microsystems involved in the child's life, the family-community interaction and family-therapy interaction presented as examples were unable to be further tested due to inherent limitations in the current archival database.

Context: Exosystem factors. The broader environmental context in which the child develops is also implicated in risk for sexual abuse. Community characteristics

including median household income and educational attainment of adults living in the neighborhood were examined.

Hypothesis 1.b.9. Children living in neighborhoods with lower median household income and in neighborhoods considered chaotic have been found to be at risk for being victimized more than once (Drake et al., 2003; Obasaju, Palin, Jacobs, Anderson, & Kaslow, 2009). It was hypothesized that children living in neighborhoods with lower median household income would be more likely to return to the CAC for additional sexual abuse referrals.

Hypothesis 1.b.10. Pittenger and colleagues (2018) found that children living in neighborhoods where fewer adults had GEDs or high school diplomas were at higher risk of experiencing sexual revictimization. It was expected that children living in neighborhoods where fewer adults have GEDs or high school diplomas would be at higher likelihood of returning to the CAC for additional sexual abuse referrals.

Context: Macrosystem factors. Similar to the mesosystem factors, the macrosystem-level factors were not able to be further examined in this study due to the limitations of the data in the archival database.

Aim 2: Identify factors that predict group membership (based on number of referrals and the presence of disclosure and/or corroborating evidence).

This exploratory aim examined if there were factors from the levels of the bioecological model that differentiated the identified groups of children. For example, with a better understanding of the factors present for children who return multiple times and disclose each time or children who initially do not disclose but do at a later referral,

professionals responsible for assessing risk at the initial visit and providing services to the family following the visit to the CAC will be better informed as to the likelihood that a child will or will not return and disclose or not disclose. There were no specific hypotheses due to the exploratory nature of the aim.

The purpose was ultimately to be able to identify the children at highest risk of returning at their initial CAC visit. By recognizing which children are at highest need of intervention regardless of disclosure status, professionals can work toward intervening at multiple levels of the child's life to prevent the need for future referrals and resources can be allocated to the children at highest risk.

CHAPTER II: RESEARCH DESIGN AND METHOD

Research Site

The research study was conducted at the Lincoln Child Advocacy Center. It included access to all of the closed case files of children who were interviewed for sexual abuse allegations that have been collected by the CAC from 2002 to the present. The collaboration was made possible by the University of Nebraska-Lincoln's Clinical Psychology Training Program's well-established relationship with the local CAC that dates to the CAC's inception in 1998. Students and faculty from the graduate school training program have been providing mental health services to CSA victims and non-offending family members since the CAC opened through Project SAFE (Sexual Abuse Family Education) and have had a dedicated office in the CAC since 2010. The collaboration allows students to both have the experience of working with these families in a therapeutic setting while also allowing the opportunity to conduct research to improve treatments and better understand how to help the children and families. The director of the CAC approved the research and the ongoing collaboration and there is a current IRB for the project.

Participants

Participants included 4,971 children and adolescents who presented to the Lincoln Child Advocacy Center for an initial sexual abuse referral between 2002 and 2012. A child is brought to the CAC for a forensic interview after making a statement of experiencing abuse or when there is reason to suspect that a child has experienced sexual abuse. Reasons for suspected abuse include a disclosure to an adult, engaging in non-normative or developmentally inappropriate sexualized behaviors, or having been

exposed to a registered sex offender or an alleged perpetrator identified by another child. The data for this study was archival. The CAC creates a case file on each child who is brought to the CAC and a new one is opened for each subsequent visit, allowing the researchers to track the number of times a child returns to this particular CAC. A case record is considered closed when the family is no longer involved with the CAC and/or when any legal proceedings have finished.

Although case files were available through 2016, all of the children who had an initial visit before January 2013 were coded and included in the database to allow adequate time for the children to return to the CAC for an additional referral. This process was consistent with previous research's approach to the database (Pittenger et al., 2018).

The final sample included 4,971 children (33.3% male and 66.7% female; 0.1% missing) referred to the Child Advocacy Center for an initial sexual abuse allegation between December 2001 and December 2012. The average age was 9.5 years (SD = 4.3); none of the cases were missing the child's age. While the majority of youth identified as European-American (76.7%), 9.1% identified as African American, 7.9% as Hispanic, and 2.3% as Native American. Eighty-three (1.6%) of the cases were missing ethnicity information. Children usually presented to the CAC with an adult (86.8%), and a biological or adoptive parent accompanied the child for the visit in 68.7% of the cases. Living situations varied for the children: 23.4% lived with both biological parents, 15.2% lived with their mother and her partner, and 28.1% lived only with their mother. Much smaller percentages lived with their father only (3.6%) or with their father and his partner

(4.2%). Approximately 13% of children were state wards (placed with other relatives or in foster care homes). See Table 1 for additional demographic information.

Table 1

Descriptive Information about Participants

Variable	Total Sample (N = 4,971)	Missing
	M (SD) / n (%)	*n (%)*
Age (years)	9.5 (4.3)	0 (0%)
Gender		1 (0.1%)
Male	1654 (33.3%)	
Female	3315 (66.7%)	
Ethnicity		83 (1.6%)
European-American	3812 (76.7%)	
African American	454 (9.1%)	
Hispanic	394 (7.9%)	
Native American	116 (2.3%)	
Asian	67 (1.3%)	
Other	45 (0.8%)	
State Ward	663 (13.3%)	387 (7.8%)
Caretaker Present	4314 (86.8%)	142 (2.9%)
Caretaker Relationship		134 (2.7%)
Biological or Adoptive Parent	3413 (68.7%)	
Grandparent	178 (3.6%)	

Foster Parent	164 (3.3%)	
Other	547 (11%)	
Child Currently Living with		228 (4.6%)
Biological Parents	1162 (23.4%)	
Mother & Partner	756 (15.2%)	
Mother Only	1399 (28.1%)	
Father & Partner	210 (4.2%)	
Father Only	179 (3.6%)	
Other Relative	227 (4.6%)	
Foster Home	401 (8.1%)	
Adoptive Parents	94 (1.9%)	
Other	178 (3.5%)	
Number of Children in Home	2.83 (1.5)	358 (7.2%)
Number of Adults in Home	1.78 (0.7)	366 (7.4%)
Perpetrator Relationship		1231 (24.8%)
Familial	2303 (46.3%)	
Nonfamilial	1437 (28.9%)	
Identified Therapist	1213 (24.4%)	694 (14%)
Mental Health Diagnosis	809 (16.3%)	190 (3.8%)
Sexualized Behaviors	610 (12.3%)	4227 (85%)
Non-Caregiving Adults in Home	887 (17.8%)	256 (5.1%)
Chaotic Family Factors		
Family history of substance abuse	1754 (35.3%)	619 (12.5%)
Family history of domestic violence	1551 (31.2%)	636 (12.8%)

Child witnessed domestic violence	1292 (26%)	690 (13.9%)
A family member experienced sexual abuse	1756 (35.3%)	1672 (33.6%)
A family member was accused of sexual perpetration	978 (19.7%)	2772 (55.8%)
Neighborhood Median Household Income	$39,954 ($10,002)	20 (0.4%)
Percentage of High School Graduates in Neighborhood	87.6% (5.3%)	20 (0.4%)
Percentage of College Graduates in Neighborhood	25.4% (10.1%)	20 (0.4%)

Note. Data provided only for youth who were accompanied to the CAC by a caretaker.

Procedures

Data collection. Continuing the procedures from a previous project (Pittenger et al., 2018), the data collection for the project occurred at the Lincoln CAC. As mentioned above, a new case file is created each time a child comes to the CAC. Case files are compiled of various forms that were completed during the child's involvement at the CAC and can include any of the following: Case Record/Intake, Forensic Interview, Medical Examination, Authorization for Exchange of Information, and forms indicating prosecution (including juvenile court involvement) and law enforcement outcomes. Since 2002 (which is when our access to the data began due to the way in which forms were stored beginning at that point in time), these forms have undergone several modifications. The forms used at the time of data collection can be found in Appendices A-D. Changes over time include specific forms being combined into one document (e.g., a Medical Release of Records and another authorization form were combined to an Authorization to Exchange Information form) and changes in the level of information which was collected. For example, variables including parent ethnicity, whether there

was a current dispute over child custody, and whether the caregiver believed the child's alleged abuse disclosure were collected with some variations of the forms but not with others. Whenever the forms are available, the information was coded by the principal investigator and a team of undergraduate research assistants.

The CAC stores the closed case files on an external hard drive and the CAC gave permission for the research team to access the external hard drive to copy the electronic files to an encrypted file on the primary research computer. Research assistants accessed the electronic files from the encrypted drive and coded the pertinent de-identified information onto hard copy files. These hard copy files were stored in a locked cabinet at the CAC until they were transported to Burnett Hall for data entry by the principal investigator. In Burnett Hall, they were stored in a locked cabinet in the Child Maltreatment Lab and a second team of undergraduate research assistants was responsible for entering the de-identified data into an Excel database. From Excel, the data was transferred into SPSS by the primary investigator for analyses.

Thirty percent of the data coded was randomly selected to be independently coded by research staff to document the item-level agreement between coders, with excellent coder reliability (>98% reliability across coders). The data checking occurred prior to the data entry into Excel.

Data Sources

Case record/intake. The case record or intake form can be found in Appendix A. It is completed by a child advocate at the CAC when every child presents for their visit. The intake includes (a) the child's demographic information (e.g., age, gender, ethnicity, disability status, primary language); (b) family information (e.g., presence of a caretaker

at the CAC with the child, number of adults in the home, number of siblings, and family history of domestic violence, substance/alcohol abuse, physical or sexual abuse, or mental health concerns); (c) characteristics of the alleged abuse (e.g., alleged perpetrator's information, the alleged abuse, the locations of the alleged abuse, and the duration and frequency of the alleged abuse); (d) the types of services the CAC provided for the child (e.g., forensic interview, medical exam, advocacy at a hospital); and (e) sociocultural information including zip code and current school. When a child did not have a caretaker attending the visit at the CAC or there is no family history available for another reason, the form may not have been able to be completed in full.

Forensic interview. The CAC has several trained forensic interviewers who complete the forensic interview record form (found in Appendix B) during or soon after their interaction with the child. The interviews may be observed through a one-way mirror by other involved parties (e.g., law enforcement or DHHS). The record form is filled out only when the child completed a forensic interview at the CAC; if the child was interviewed by DHHS workers or by law enforcement at a location other than the CAC, there will likely not be a record of the interview. The information found on the forensic interview form include whether or not the child disclosed sexual abuse, the specific characteristics of the abuse if the child disclosed, and any corroborating evidence to indicate the abuse occurred.

Medical examination. Found in Appendix C, the medical examination form is completed by the medical professional who conducts the physical examination of the child at the CAC. Not all children receive a medical examination as parents can refuse to allow one or it can be determined that it is not necessary at the time of the child's visit for

varying reasons. It tends to be done more often with much younger children who are developmentally unable to participate in a forensic interview (e.g., infants and toddlers). If the medical exam form was not completed at the CAC, it indicates that the child did not receive a medical exam there. Some children receive a medical exam outside of the CAC at a local hospital or Emergency Room. If this occurred, the intake record will contain the information regarding who conducted the exam and whether there were physical findings consistent with abuse. If the medical exam was completed at the CAC, the following information is provided that is applicable to the current study: (a) sexual developmental stages of the child including tanner stage, menarche, engagement in developmentally inappropriate sexual behaviors, and current consensual sexual activity status; (b) physical findings that are present and consistent with abuse, the evidence of a sexually transmitted infection, or a positive pregnancy test.

Census data. Each intake includes the child's zip code, which allowed the following information to be gathered about the child's neighborhood through the United States Census Bureau's American Fact Finder tool (U.S. Census Bureau, 2000): median household income and the educational attainment proportions of the adult populations (e.g., percentage of adults in zip code with a high school diploma or with a bachelor's degree).

Analyses

The data analyses for the specific aims and hypotheses described earlier in the document are detailed in the following section. Data analyses included descriptive, bivariate, and multivariate analyses. All analyses were run using SPSS version 25 (IBM Corp, 2017).

Variables at the child-specific level included child's age, ethnicity, gender, presence of mental health diagnosis, and presence of sexualized behaviors. Age was coded as a continuous variable (age in years). Ethnicity was dummy coded due to the small sample sizes among minority ethnic groups to represent either European American or non-European American. Gender (male or female), the presence of a mental health diagnosis, and the presence of sexualized behaviors were created as categorical variables.

At the microsystem level, variables specific to the child's abuse, home environment, reported family history of sexual abuse, substance abuse, and domestic violence, and the presence of an identified mental health provider at the time of the child's initial referral were identified as relevant to the current project's research questions. Abuse-specific variables were combined into a composite score including abuse intrusiveness (i.e., non-contact, contact without penetration, or penetration), duration (i.e., single day, less than 1 month, less than 12 months, or greater than 12 months), and frequency (i.e., once, multiple events, or more times than child can count). Variables related to the home environment (e.g., presence of non-caregiving adults), family history substance abuse and domestic violence, and mental health provider presence were dummy coded with "1" representing a positive response and "0" representing a negative one. Although there was not a specific hypothesis related to perpetrator relationship to the child, the variable's relationship to the child's referral status was explored and it was defined as familial perpetrator ("0") and non-familial perpetrator ("1").

Community-level exosystem factors included in the analyses were median household income, percentage of adults with a high school diploma, and percentage of

adults with a college degree in the child's zip code at the initial referral. The three continuous variables were gathered from U.S. 2000 Census, which is close in proximity to when the data began to be collected in 2002. While more recent (2010) census data was available, there was changes in the data collected and the updated census did not have data for zip codes from many of the smaller towns. Due to the fact that many children came from Nebraskan towns with a population of less than 250,000, which was the cut-off for collecting this data in 2010, there would have been a great deal of missing data and inconsistency in the data collection process. Children from small towns could have had data from 2000 while those from larger cities like Lincoln could have had more up-to-date data, but such inconsistency was not desired. Therefore, it was decided to remain consistent and use the 2000 census data.

Data conformed to the assumptions of the statistical analyses chosen. Univariate data analyses (e.g., means, standard deviations, medians, and frequencies) were completed to qualitatively describe the overall sample as well as the identified groups. Refer to Table 1 for specific information. Bivariate analyses of means and proportion comparisons identified significant differences between youth who had subsequent CSA referrals and those who did not, as well as differences between the four identified groups. Analysis of variance (ANOVA) were used for continuous and normally distributed variables to determine mean differences with subsequent referral status as the grouping variable. Chi-squared (X^2) analyses were used for categorical variables to determine differences between proportions in the separate groups and regarding subsequent referral status.

Consistent with previous research with this archival database and population (Pittenger et al., 2018), logistic regression was used at the multivariate level and all variables identified as of interest to risk for returning to the CAC with a subsequent referral were included. The logistic regression model included all variables (e.g., individual, microsystem, exosystem) unless more than one-third of the data for a variable were missing. Similarly, cases were included for multivariate models only if they had complete data for all variables of interest. For within-level models, the first step involved building a full model representative of each contextual level, and the second step involved building a trimmed model using a backward deletion procedure (examining the likelihood ratio and Hosmer and Lemeshow test statistics to inform each individual deletion). Pearson correlation coefficients identified relationships between predictors both within and across levels. A full model regarding predictors of returning with a subsequent sexual abuse referral across all levels included all hypothesized contributing factors (even if not correlated on a bivariate level). A backward deletion stepwise procedure resulted in a trimmed model of variables across all levels. The full model and trimmed models were compared to each other with the likelihood ratio test and the Hosmer and Lemeshow tests.

To further delineate differences that could be identified between the distinct groups of youth, discriminate analyses were conducted. Discriminant function analysis is helpful in determining which variables are effective in predicting category membership. Follow-ups were completed to determine the discriminant function's success at differentiating between the groups of children.

Power Analysis. The design of this archival study had limitations in that there were missing data in the case files coded, either because the information was not known to the CAC employee completing the form, the employee did not completely record the information on the sheet, or the caregiver refused to provide the information. A third reason for missing data was that some variables stopped being collected over the years included in the data collection due to changes in the forms. For this project, the sample size of 4,971 allowed detection of effect sizes as small as 0.1.

Group Simplification

As described above, there were originally three dimensions proposed to separate and describe the children based on number of referrals, presence of disclosure/evidence, and if disclosure/evidence occurred at the initial or subsequent referral. Univariate results reflecting the characteristics of children in each of the originally proposed six groups can be found in Table 2.

Table 2

Group-based Descriptive Information with Originally Proposed Six Groups

Variable	Single referral, disclosure	Multiple referrals, disclosures	Single referral, nondisclosure	Multiple referrals, nondisclosures	Multiple referrals, initial disclosure with subs. nondisclosure	Multiple referrals, initial nondisclosure with subs. disclosure
	M (SD) / n (%)	*M (SD) / n (%)*	*M (SD) / n (%)*	*M (SD) / n (%)*	*M (SD) / n (%)*	*M (SD) / n (%)*
Sample	1813 (36%)	218 (4%)	2156 (43%)	240 (5%)	120 (2%)	237 (5%)
Age (years)	11.2 (4.2)	9.75 (4.1)	8.4 (4.0)	6.2 (2.6)	8.75 (3.8)	8.07 (3.6)
Gender						
Male	424 (23.4%)	32 (14.7%)	943 (43.7%)	107 (44.6%)	43 (35.8%)	64 (27.0%)
Female	1388 (76.6%)	185 (84.9%)	1212 (56.2%)	133 (55.4%)	77 (64.2%)	173 (73.0%)
Ethnicity						
European-American	1419 (78.3%)	163 (74.8%)	1617 (75%)	190 (79.2%)	87 (72.5%)	185 (78.1%)
African-American	158 (8.7%)	17 (7.8%)	212 (9.8%)	23 (9.6%)	12 (10.0%)	17 (7.2%)
Hispanic	140 (7.7%)	20 (9.2%)	179 (8.3%)	11 (4.6%)	14 (11.7%)	20 (8.4%)
Native American	29 (1.9%)	10 (4.6%)	52 (2.4%)	8 (3.3%)	2 (1.7%)	8 (3.4%)
Asian	27 (1.5%)	2 (0.9%)	32 (1.5%)	3 (1.3%)	1 (0.8%)	1 (0.4%)
Other	12 (0.7%)	1 (0.5%)	31 (1.4%)	0 (0%)	1 (0.8%)	0 (0%)

State Ward	203 (11.2%)	26 (11.9%)	298 (13.8%)	46 (19.2%)	12 (10.0%)	48 (20.3%)
Caretaker Present	1544 (85.2%)	174 (79.8%)	1952 (90.5%)	219 (91.3%)	108 (90.0%)	210 (88.6%)
Caretaker Relationship						
Biological or Adoptive Parent	1242 (68.5%)	137 (62.8%)	1467 (68%)	154 (64.2%)	87 (72.5%)	147 (62.0%)
Grandparent	55 (3.0%)	10 (4.6%)	85 (3.9%)	9 (3.8%)	3 (2.5%)	13 (5.5%)
Foster Parent	49 (2.7%)	6 (2.8%)	83 (3.8%)	10 (4.2%)	4 (3.3%)	9 (3.8%)
Other	203 (11.4%)	19 (8.8%)	303 (14%)	45 (18.8%)	14 (11.7%)	41 (17.2%)
Child Currently Living With						
Biological Parents	459 (25.3%)	44 (20.2%)	517 (24%)	37 (15.4%)	24 (20.0%)	33 (13.9%)
Mother & Partner	328 (18.1%)	42 (19.3%)	278 (12.9%)	32 (13.3%)	17 (14.2%)	38 (16.0%)
Mother Only	470 (25.9%)	61 (28.0%)	626 (29%)	83 (34.6%)	46 (38.3%)	69 (29.1%)
Father & Partner	95 (5.2%)	11 (5.0%)	74 (3.4%)	10 (4.2%)	3 (2.5%)	10 (4.2%)
Father Only	59 (3.3%)	9 (4.1%)	77 (3.6%)	8 (3.3%)	6 (5.0%)	10 (4.2%)
Other Relative	74 (4.1%)	14 (6.4%)	89 (4.1%)	13 (5.4%)	6 (5.0%)	25 (10.5%)
Foster Home	107 (5.9%)	14 (6.4%)	203 (9.4%)	29 (12.1)	6 (5.0%)	28 (11.8%)
Adoptive Parents	32 (1.8%)	2 (0.9%)	45 (2.1%)	5 (2.1%)	2 (1.7%)	6 (2.5%)
Other	45 (2.5%)	8 (3.7%)	27 (1.3%)	2 (0.8%)	5 (4.2%)	4 91.7%)
Number of Children in Home	2.8 (1.5)	3.0 (1.4)	2.9 (1.5)	3.0 (1.8)	2.9 (1.4)	3.1 (1.6)

Number of Adults in Home	1.8 (0.7)	1.8 (0.7)	1.8 (0.7)	1.8 (0.7)	1.9 (0.9)	1.8 (0.7)
Perpetrator Relationship						
Familial	907 (50%)	122 (56.0%)	924 (42.9%)	97 (40.4%)	69 (57.5%)	132 (55.7%)
Nonfamilial	749 (41.9%)	86 (39.4%)	366 (17%)	41 (17.1%)	42 (35.0%)	41 (17.3%)
Identified Therapist	519 (28.6%)	79 (36.2%)	435 (20.2%)	49 (20.4%)	32 (26.7)	71 (30.0%)
Mental Health Diagnosis	136 (7.5%)	25 (11.5%)	91 (4.2%)	6 (2.5%)	7 (5.8%)	13 (5.5%)
Sexualized Behaviors	40 (2.2%)	6 (2.8%)	435 (20.2%)	76 (31.7%)	3 (2.5%)	43 (18.1%)
Non-Caregiving Adults in Home	320 (17.7%)	48 (22.0%)	382 (17.7%)	50 (20.8%)	29 (24.2%)	41 (17.3%)
Chaotic Family Factors						
Family with drug or alcohol problems	653 (36%)	100 (45.9%)	730 (33.9%)	82 (34.2%)	48 (40.0%)	98 (41.4%)
Family history of domestic violence	522 (28.8%)	97 (44.5%)	664 (30.8%)	85 (35.4%)	56 (46.7%)	85 (35.9%)
Child witnessed domestic violence	430 (23.7%)	73 (33.5%)	570 (26.4%)	73 (30.4%)	47 (39.2%)	65 (27.4%)
A family member experienced sexual abuse	685 (37.8%)	102 (46.8%)	681 (31.6%)	93 (38.8%)	59 (49.2%)	91 (38.4%)
A family member has been accused of sexual perpetration	374 (20.6%)	64 (29.4%)	364 (16.9%)	47 (19.6%)	36 (30.0%)	69 (29.1%)
Neighborhood Median Household Income	$39,951 ($10,175)	$39,153 ($9,570)	$40,305 ($10,176)	$39,150 ($9,338)	$38,122 ($9,016)	$39,562 ($9,130)

Percentage of High School Graduates in Neighborhood	87.6% (5.3%)	87.1% (5.4%)	87.6% (5.3%)	87.9% (5.0%)	87.6% (4.7%)	87.7% (5.2%)
Percentage of College Graduates in Neighborhood	25.1% (10.2%)	25.1% (9.6%)	25.4% (10.2%)	25.7% (10.2%)	25.5% (8.8%)	25.6% (9.6%)

Note. Data provided only for youth who were accompanied to the CAC by a caretaker.

Unfortunately, due to high variability between the group sizes, lack of meaningful differences elucidated by initial comparative analyses, and the inherent complexity involved with the number of groups involved, the third dimension of when the disclosure/evidence occurred was removed from further analyses. This resulted in a total of four groups for analyses based on the number of referrals (single vs. multiple) and the presence of disclosure/evidence (present or not present). See Table 3 for a visual description of the groups and sample sizes. In addition, Table 4 illustrates the univariate results for the four core groups.

Table 3

Explanation of Groups

		Disclosure/Evidence?	
		Yes	No
Subsequent CSA Referral?	No	Single referral, disclosure/evidence *n*: 1,813 (36.5%)	Single referral, nondisclosure/lack of evidence *n*: 2,312 (46.5%)
	Yes	Multiple referrals, disclosure/evidence *n*: 342 (6.9%)	Multiple referrals, nondisclosures/lack of evidence *n*: 499 (10.0%)

Table 4

Group-based Descriptive Information with Four Groups

Variable	Single referral, disclosure/ evidence	Multiple referrals, disclosure(s)/ evidence	Single referral, nondisclosure/ lack of evidence	Multiple referrals, nondisclosures/ lack of evidence
	M (SD) / n (%)	*M (SD) / n (%)*	*M (SD) / n (%)*	*M (SD) / n (%)*
Sample	1813 (36.5%)	342 (6.9%)	2312 (46.5%)	499 (10.0%)
Age (years)	11.2 (4.3)	9.2 (4.0)	8.7 (4.2)	7.2 (3.4)
Gender				
Male	414 (22.8%)	76 (22.2%)	986 (42.6%)	175 (35.1%)
Female	1398 (77.1%)	265 (77.5%)	1325 (57.3%)	324 (64.9%)
Ethnicity				
European-American	1419 (78.3%)	258 (75.4%)	1738 (75.2%)	392 (78.6%)
African-American	154 (8.5%)	31 (9.1%)	231 (10.0%)	38 (7.6%)
Hispanic	144 (7.9%)	30 (8.8%)	185 (8.0%)	35 (7.0%)
Native American	30 (1.7%)	12 (3.5%)	57 (2.5%)	17 (3.4%)
Asian	26 (1.4%)	3 (0.9%)	34 (1.5%)	4 (0.8%)
Other	12 (0.7%)	2 (0.6%)	29 (1.3%)	0 (0%)
State Ward	212 (11.7%)	42 (12.3%)	312 (13.5%)	95 (19.0%)
Caretaker Present	1539 (84.9%)	292 (85.4%)	2043 (88.4%)	436 (87.4%)
Caretaker Relationship				
Biological or Adoptive	1239 (68.3%)	235 (68.7%)	1576 (68.1%)	316 (63.3%)
Parent				
Grandparent	53 (2.9%)	11 (3.2%)	90 (3.9%)	24 (4.8%)
Foster Parent	53 (2.9%)	11 (3.2%)	79 (3.4%)	20 (4.0%)
Other	199 (11.1%)	33 (9.7%)	284 (13.9%)	75 (15.1%)

Child Currently Living with:				
Biological Parents	461 (25.4%)	67 (19.5%)	556 (24%)	77 (15.4%)
Mother & Partner	335 (18.5%)	58 (17.0%)	289 (12.5%)	74 (14.8%)
Mother Only	453 (25.0%)	113 (33.0%	681 (29.5%)	150 (30.1%)
Father & Partner	95 (5.2%)	15 (4.4%)	84 (3.6%)	16 (3.2%)
Father Only	62 (3.6%)	13 (3.9%)	80 (3.5%)	24 (4.8%)
Other Relative	66 (3.6%)	19 (5.7%)	99 (4.3%)	43 (8.6%)
Foster Home	113 (6.2%)	25 (7.3%)	207 (9.0%)	55 (11.0)
Adoptive Parents	32 (1.8%)	5 (1.5%)	44 (1.9%)	12 (2.4%)
Other	49 (2.7%)	10 (2.9%)	33 (1.4%)	8 (1.6%)
Number of Children in Home	2.8 (1.5)	2.9 (1.4)	2.8 (1.5)	3.1 (1.7)
Number of Adults in Home	1.8 (0.7)	1.8 (0.7)	1.7 (0.7)	1.8 (0.7)
Perpetrator Relationship				
Familial	912 (50.3%)	198 (57.9%)	957 (41.4%)	232 (46.5%)
Nonfamilial	748 (41.3%)	123 (36.0%)	465 (20.1%)	100 (20.0%)
Identified Therapist	531 (29.3%)	105 (30.7%)	448 (19.4%)	126 (25.3%)
Mental Health Diagnosis	138 (7.6%)	28 (8.2%)	105 (4.5%)	27 (5.4%)
Sexualized Behaviors	44 (2.4%)	13 (3.8%)	437 (22.8%)	115 (23.0%)
Non-Caregiving Adults in Home	320 (17.7%)	77 (22.5%)	398 (17.2%)	92 (18.4%)
Chaotic Family Factors				
Family with drug or alcohol problems	652 (36%)	147 (43.0%)	767 (33.2%)	184 (36.9%)
Family history of domestic violence	526 (29.0%)	145 (42.4%)	688 (29.8%)	190 (38.1%)

Child witnessed domestic violence	436 (24.0%)	112 (32.7%)	589 (25.5%)	154 (30.9%)
A family member experienced sexual abuse	697 (38.4%)	156 (45.6%)	705 (30.5%)	195 (39.1%)
A family member has been accused of sexual perpetration	380 (21.0%)	101 (29.5%)	376 (16.3%)	119 (23.8%)
Neighborhood Median Household Income	$40,000 ($10,125)	$38,840 ($9,185)	$40,291 ($10,159)	$39,028 ($9,219)
Percentage of High School Graduates in Neighborhood	87.6% (5.3%)	87.2% (5.1%)	87.6% (5.2%)	87.7% (5.1%)
Percentage of College Graduates in Neighborhood	25.0% (10.3%)	24.9% (9.4%)	25.6% (10.2%)	25.7% (9.8%)

Note. Data provided only for youth who were accompanied to the CAC by a caretaker.

CHAPTER III: RESULTS

The final sample size consisted of 4,971 youth who were referred to the CAC for an initial referral of sexual abuse between 2002 and 2012. Of these 4,971 children, 100% had intake forms, 93.4% completed a forensic interview at the CAC, 8.3% had a medical examination conducted at the CAC, and 37.2% had a caregiver who gave authorization for the CAC to exchange information with at least one other entity. Overall, 43.3% of the children referred for an initial referral either disclosed or had corroborating evidence suggesting that CSA had occurred. Almost one in five of all children (17%) referred for CSA between 2002 and 2012 returned with a subsequent abuse referral before December 2016.

Due to the archival nature of the project, there were missing data for a variety of reasons (e.g., changes in intake forms and forensic interview forms over the years, insufficient time to complete the form, caregivers who did not know the answers to the questions or refused to provide them). The following results use the largest possible number from the dataset. A list-wise deletion method was used to ensure that cases included in analyses had complete data for all variables of interest.

As introduced above, four groups were created (a two-by-two design) based on the evidence of a disclosure and/or corroborating evidence and whether the child returns to the CAC with a subsequent sexual abuse referral. All 4,971 youth were categorized into four distinct and non-overlapping groups. The largest group (46.5%) represented children with a single referral to the CAC who did not disclose or have corroborating evidence indicative of abuse. The second largest group (36.6%) represented children referred one time who disclosed or presented with corroborating evidence. A smaller

group of children (10%) were referred more than once but did not disclose or have evidence of abuse at either their initial or subsequent referrals. The smallest group (6.9%) represented children who were referred multiple times who disclosed or had corroborating evidence at least once. For more specific descriptive information regarding the four groups, see Table 4.

To better differentiate between factors related to number of referrals and whether a child disclosed or presented with evidence, separate bivariate analyses were conducted with variables of interest. Specific hypotheses were made regarding singly-referred children and multiply-referred children, but not regarding disclosure status and/or the presence of evidence. However, to present the relevant information in as straightforward of a manner as possible, the following bivariate results are organized by the variable of interest. The hypothesis related to referral status will be addressed first and will be followed by the exploratory results regarding disclosure and evidence status.

Aim 1: Identify factors within the bioecological model that differentiate CAC-referred children based on number of referrals for sexual abuse and presence of disclosure/evidence. Table 5 presents the descriptive statistics and results from bivariate analyses (Chi-Squared and *F*-tests) for youth with a single referral compared to those with a subsequent referral to the CAC. Table 6 presents the results from bivariate analyses specifically related to the status of the child's disclosure and/or corroborating evidence. To explore the bivariate correlations across contextual levels, Table 7 presents the bivariate relationships for all variables of interest.

Table 5

Descriptive and Bivariate Statistics Comparing Youth Referred a Single Time with Youth Referred Multiple Times for Sexual Abuse

	Singly-Referred Youth *N* = 4125		Multiply-Referred Youth *N* = 841				
	M (SD)/ %	*n*	*M (SD)/ %*	*n*	*F / X^2*	*df*	*p-value*
Person							
Age (years)	9.8 (4.4)	4125	8.1 (3.8)	841	109.1	4964	<.001
Female	66.0%	4123	70.0%	840	5.220	1	.022
European-American	76.5%	4061	77.3%	822	.710	1	.399
Mental Health Diagnosis	15.2%	4125	21.5%	807	20.802	1	<.001
Sexual Behaviors	11.7%	586	15.2%	157	.026	1	.873
Microsystems							
Abuse Severity	2.5 (1.9)	747	2.4 (1.9)	130	.452	875	.502
Familial Perpetrator	29.4%	3082	51.1%	653	6.174	1	.013
Non-Caregiving Adults in Home	17.4%	3914	20.1%	796	3.606	1	.058
Chaotic Family Environment	35.6%	2609	43.4%	545	20.933	1	<.001
Identified Mental Health Provider	23.7%	3513	27.5%	822	3.448	1	.063
Exosystems							
Neighborhood median income	$40,164 ($10,144)	4037	$38,950 ($9,199)	809	9.945	4844	.002
% High School Graduates in Neighborhood	87.6% (5.3%)	4037	87.4% (5.1%)	809	.458	4844	.499

% College Graduates in Neighborhood	25.4% (10.2%)	4037	25.3% (9.6%)	809	.004	4844	.950

**Data provided only for youth who were accompanied to the CAC by a caretaker.

Table 6

Descriptive and Bivariate Statistics Comparing Youth with Disclosure/Evidence to Youth without Disclosure/Evidence

	Youth with Disclosure/Evidence *n* = 2158		Youth without Disclosure/Evidence *n* = 2813				
	M (SD)/ %	*n*	*M (SD)/ %*	*n*	*F / X^2*	*Df*	*p-value*
Person							
Age (years)	10.8 (4.3)	2,158	8.46 (4.1)	2,813	399.4	4,969	<.001
Female	77.1%	2,156	58.7%	2,812	188.12	1	<.001
European-American	77.8%	2,124	75.8%	2,764	2.69	1	.101
Mental Health Diagnosis	19.6%	2,131	4.7%	2,813	24.22	1	<.001
Sexual Behaviors	2.7%	85	19.6%	659	12.29	1	<.001
Microsystems							
Abuse Severity	2.5 (1.9)	875	3 (2.8)	2	.128	875	.721
Familial Perpetrator	51.5%	1,984	42.3%	1,756	54.60	1	<.001
Non-Caregiving Adults in Home	18.4%	2,055	17.4%	2,660	.612	1	.434
Chaotic Family Environment (SA, DV, witness DV)	38.6%	1,435	35.7%	1,721	.056	1	.813
Identified Mental Health Provider	29.6%	1,909	20.4%	2,347	41.12	1	<.001

Exosystems							
Neighborhood Median Income	$39,802 ($9,992)	2,105	$40,070 ($10,010)	2,746	.853	4,849	.356
Percentage of High School Graduates in Neighborhood	87.5% (5.3%)	2,105	87.7% (5.3%)	2,746	1.12	4,849	.291
Percentage of College Graduates in Neighborhood	25.0% (10.1%)	2,105	25.6% (10.1%)	2,746	4.04	4,849	.045

**Data provided only for youth who were accompanied to the CAC by a caretaker.

Table 7

Bivariate Correlations of Factors across Each Contextual Level (n = 2038)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Subsequent Referral	--												
2. CSA Disclosure/Evidence	-.030	--											
Person-Specific													
3. Age (years)	-.164**	.276**	--										
4. Gender (0 = Male)	.021	.169**	.198**	--									
5. Ethnicity (0 = White)	-.001	.001	.054*	.031	--								
6. Mental Health Diagnosis	.051*	.102**	.204**	-.070**	.005	--							
Microsystem													
7. Chaotic Family Factors	.098**	-.06**	-.059**	.028	-.062**	.090**	--						
8. Therapeutic Services Engagement	.053*	.104**	.123**	-.032	.030	.196**	.101**	--					
9. Perpetrator Relationship (0=fam)	-.041	.145**	.219**	.030	.023	.036	-.084**	-.029	--				
10. Non-caregiving Adults in Home	.028	-.015	-.009	-.001	-.021	.013	.084**	.038	.020	--			
Exosystem													
11. Median Neighborhood Income	-.069**	-.009	.038	-.003	.096**	-.085**	-.086**	.058**	.011	.018	--		
12. Percentage of High School Graduates in Neighborhood	-.054*	.010	.031	-.010	.070**	-.066**	-.050**	.088**	.009	-.012	.719**	--	
13. Percentage of College Graduates in Neighborhood	-.021	-.012	.031	.008	-.092**	-.024	-.008	.067**	.022	.007	.475**	.639**	--

*$p < .05$; **$p < .01$.

Bivariate Results

Person. At the child-specific level, factors that were considered included child's age, gender, ethnicity, mental health diagnosis, and presence of sexualized behaviors. Although a specific hypothesis was not formulated for ethnicity, it was an important element to consider on a bivariate level. Ethnicity was not significantly related to any differences between children's referral status ($X^2(1) = .710$, $p = .399$) or the presence of a disclosure or evidence ($X^2(1) = 2.69$, $p = .101$).

Hypothesis 1.b.1: As hypothesized, younger children were more likely to receive an additional CAC referral for CSA compared to older children, $F(1, 4964) = 109.1$, $p < .001$, $MSe = 2671.7$. Although there was not a specific hypothesis for the relationship between age and the presence of disclosure/evidence, younger children were significantly more likely to not disclose abuse and to not have evidence, $F(1, 4969) = 399.4$, $p < .001$, $MSe = 2528.7$.

Hypothesis 1.b.2: As hypothesized, females were more likely to receive an additional CSA referral for CSA compared to males, $X^2(1) = 5.220$, $p = .022$. Gender was also significantly related to disclosure status, $X^2(1) = 188.12$, $p < .001$, with males much more likely to not disclose or present with corroborating evidence compared to females.

Hypothesis 1.b.3: Consistent with the anticipated pattern, children with a mental health diagnosis at the initial referral were more likely to return with a subsequent referral than those without a mental health diagnosis, $X^2(1) = 20.802$, $p < .001$. There was also a relationship with the presence of disclosure and evidence, with children with a mental

health diagnosis at the initial referral more likely to disclose compared to children without one, $X^2(1) = 24.215$, $p < .001$.

Hypothesis 1.b.4: Contrary to the hypothesis that children with sexual behavior problems will be more likely to receive a subsequent CAC referral, there was no significant difference regarding the likelihood of returning, $X^2(1) = .026$, $p = .873$. Of note, the sample size of children reported to have sexual behavior problems with the available data was a small one compared to the overall dataset (i.e., only 743 youth (14.9%) in total).

Regarding the presence of disclosure or corroborating evidence, there was a significant difference between children with and without sexual behaviors, $X^2(1) = 12.29$, $p < .001$. Children with sexual behaviors were more likely to not disclose and to not have corroborating evidence than children without sexual behaviors. Specifically, 90% of children who presented with sexual behaviors did not disclose and did not have corroborating evidence.

Context: Microsystem factors. At the child's immediate environment-specific level, variables relating to the child's abuse specific factors, family environment, family history of substance abuse and domestic violence, and the presence of an identified mental health provider for the child at initial referral were explored for relationships to the child's number of sexual abuse referrals and the presence of disclosure/evidence.

Hypothesis 1.b.5. It was believed that children who disclose more intrusive and severe forms of sexual abuse at the initial visit would be more likely to return to the CAC for additional sexual abuse referrals compared to children who do not disclose abuse or who disclose less intrusive (e.g., non-penetrative) sexual acts. However, analyses did not

support the hypothesis and there was no relationship between abuse severity and returning with a subsequent abuse referral, $F(1, 875) = .452$, $p = .502$, $MSe = 3.814$. There was also no relationship between abuse severity and the presence of a disclosure or corroborating evidence, $F(1, 875) = .128$, $p = .72$, $MSe = 3.8$. Of note, the variable of abuse severity was only available for a small proportion of children due to missing data.

Hypothesis 1.b.6. Due to a variety of factors that may place the child at increased risk for harm and previous research which found it to be a predictor (Pittenger et al., 2018), it was hypothesized that children living with additional adults in the home (e.g., parent's partner, adult extended family members, roommate) would be at increased risk of additional sexual abuse referrals to the CAC. Results approached significance, but the hypothesis was not fully supported in the current study's sample, $X^2(1) = 3.606$, $p = .058$.

There was also no relationship between additional adults in the home and disclosure/corroborating evidence status, $X^2(1) = .612$, $p = .434$.

Hypothesis 1.b.7. Similar to the above hypothesis because these are environmental factors that may place children at increased risk, it was purported that families with a reported history of substance abuse, domestic violence, and the child witnessing domestic violence would be more likely to have youth who were referred additional times for CSA concerns. Results supported the hypothesis and indicated that children with reported histories of familial challenges were more likely to return to the CAC, $X^2(1) = 20.933$, $p < .001$.

However, these environmental factors did not have a significant relationship with the likelihood that a child would disclose abuse or present with corroborating evidence at their initial referral, $X^2(1) = .056$, $p = .813$.

Hypothesis 1.b.8. It was hypothesized that having an identified therapist at the initial referral would increase the child's likelihood of returning to the CAC for subsequent sexual abuse referrals. Results approached significance at the bivariate level but were not clinically significant between the two groups of youth, $X^2(1) = 3.448$, $p = .063$. However, at the multivariate level, having an identified therapist significantly contributed to the model as a predictor of a subsequent referral after controlling for familial substance abuse and domestic violence.

An identified therapist does have an influence on children disclosing or presenting with evidence; a greater proportion of children with an identified therapist at the initial referral disclosed and/or had corroborating evidence compared to children without a therapist, $X^2(1) = 41.116$, $p < .001$.

Context: Exosystem factors. Community characteristics including median household income and educational attainment of adults living in the neighborhood were examined.

Hypothesis 1.b.9. Consistent with the original hypothesis, children living in neighborhoods with lower median household income were more likely to return to the CAC for additional sexual abuse referrals, $F(1, 4844) = 9.945$, $p = .002$, $MSe = 99856607.9$.

However, median household income was not related to a difference regarding disclosure status or presence of corroborating evidence, $F(1, 4849) = .853$, $p = .356$, $MSe = 100057320$.

Hypothesis 1.b.10. It was expected that there would be a difference in the educational attainment in the neighborhoods where children lived at their initial referral

that would relate to the children's risk for subsequent referrals. However, there was no relationship between subsequent referrals and educational attainment of the adults in the neighborhood. Specifically focused on percentage of adults with GEDs or high school diplomas, there was no difference between those referred once and those referred multiple times, $F(1, 4844) = .458$, $p = .499$, $MSe = 27.748$. The percentage of adults with bachelor's degrees was also not related to the youth's likelihood of a subsequent referral, $F(1, 4844) = .004$, $p = .950$, $MSe = 102.985$.

Interestingly, there was a relationship between educational attainment of the adults in the child's zip code and the presence of disclosure and/or corroborating evidence of abuse. Children were slightly less likely to disclose or present with corroborating evidence when living in areas with a higher percentage of adults with Bachelor's degrees, $F(1, 4849) = 4.04$, $p = .045$, $MSe = 102.9$. However, there was no relationship between the percentage of adults with high school diplomas or GEDs in the neighborhood and the child's disclosure status, $F(1, 4849) = 1.12$, $p = .291$, $MSe = 27.7$.

Factors across contextual levels. Exploring relationships across person-specific, microsystem, and exosystem levels identified the ways in which the variables interact with each other. On a bivariate level, younger age, having a mental health diagnosis, living with chaotic family factors (e.g., domestic violence, witnessing domestic violence, and familial substance abuse), lower median household income, and fewer high school graduates in the neighborhood were all correlated with a subsequent abuse referral. Older age, female gender, having a mental health diagnosis, no history of familial substance abuse or domestic violence, having a therapist, and having a perpetrator outside of the family were all correlated with presenting with a disclosure or evidence on a bivariate

level. Older ages were positively correlated with being female, European-American ethnicity, therapy engagement, having an extrafamilial perpetrator, and having a mental health diagnosis, while it was negative correlated with family history of substance abuse and domestic violence. Boys were significantly less likely to present with a mental health diagnosis. European-American children were less likely to present with familial substance abuse or domestic violence, more likely to have a higher median neighborhood income, and more likely to have a higher percentage of high school graduates in their neighborhood. Children with a mental health diagnosis were more likely to have a history of familial substance abuse and/or domestic violence, to be involved in therapy, and to live in neighborhoods with lower median household income and fewer high school graduates. Chaotic family factors (i.e., familial substance abuse and/or domestic violence) were associated with therapeutic engagement, intrafamilial perpetrators, increased non-caregiving adults in the home, lower neighborhood median household income, and fewer high school graduates in the neighborhood. Therapeutic services engagement was correlated with living in areas with a higher median household income and a higher percentage of high school and college graduates. See Table 7 for additional details.

Multivariate Results

Cases were selected for inclusion in multivariate logistic regression models if they had complete data for all variables examined across contextual levels. The sample size for multivariate analyses included 2,038 youth. For this sample, 57.9% of youth disclosed or presented with corroborating evidence at the initial referral and 18.4% returned with a subsequent referral to the CAC.

To clarify the differences in available sample size across the contextual levels, the following examples are presented in regards to both referral status (singly or multiply-referred) and presence of disclosure and/or corroborating evidence status. Within the Person level of variables (e.g., age, gender, ethnicity, mental health diagnosis) 4,697 youth had complete data when investigating referral status and 4,702 youth had complete data when investigating the presence of disclosure or corroborating evidence. Within the Microsystems level of variables (e.g., perpetrator relationship, presence of non-caregiving adults in the home, chaotic family environment factors of substance abuse, domestic violence, and child witnessing domestic violence, and an identified mental health therapist), 2,136 youth had complete data when investigating referral status and 2,138 youth had complete data when investigating disclosure or corroborating evidence. Within the Exosystems level, a much higher percentage of children had complete data due to the reliance on zip code (which was almost always available): 4,846 youth had complete data when investigating referral status and 4,851 youth had complete data when investigating disclosure/evidence status. As evidenced, this wide variability is primarily due to missing data within the microsystems level (particularly due to a large amount of missing data for the reported family environmental factors of history of substance abuse, domestic violence within the family, and the child witnessing domestic violence). However, the family environment variable was below the 33% cut off and was significantly related to both referral status and disclosure status on bivariate levels, therefore it was included in analyses despite the resulting decrease in sample size.

Two variables were not included in multivariate analyses due to significant missing data: variables representing sexual behaviors and abuse severity (see Tables 5

and 6). They were not included in the multivariate analyses to allow for the largest sample size possible. Abuse severity was not significantly associated with referral status (singly- or multiply-referred) on a bivariate level. Sexual behaviors were significantly more likely to be reported in children who did not disclose or present with corroborating evidence, but the amount of missing data made it impractical to include in the multivariate analyses while attempting to maximize total sample size.

To allow for better discussion and enhanced understanding of multivariate relationships, the following multivariate analyses are presented separately for both referral status and disclosure and/or evidence status.

Person-specific factors predicting subsequent referral status. Binary logistic regression was conducted to build a multivariate model to predict whether a child would be referred to the CAC for a subsequent sexual abuse referral based on child-specific factors. The full model included the following variables: child's age, gender, ethnicity, and mental health diagnosis. Sexual behaviors were not included due to missing data constraints. The resulting logistic regression model was statistically significant, $X^2(4) = 80.833$, $p < .001$, but the Hosmer and Lemeshow test indicated poor fit, $X^2\ (8) = 18.356$, $p = .019$. For the Hosmer and Lemeshow test, good fit is generally indicated with *p*-values above 0.05. The model captures 6.3% of the variation in the dependent variables (Nagelkerke $R^2 = .063$). The child's age, gender, and presence of a mental health diagnosis each significantly contributed to the multivariate model, while ethnicity did not significantly contribute either at the bivariate or multivariate level. Therefore, a trimmed model was examined by omitting ethnicity as a variable. The resulting trimmed model was also statistically significant, $X^2(4) = 80.746$, $p < .001$, with a Hosmer and Lemeshow

test indicating improved fit, X^2 (8) = 13.962, p = .083 (see Table 8). Children were more likely to receive a subsequent referral to the CAC for sexual abuse if they were younger, female, and if they had a mental health diagnosis. For example, girls were 69.1% more likely to return to the CAC than boys when age and mental health diagnosis were held constant. Overall, 81.7% of children were correctly classified regarding their subsequent referral status with the trimmed model. The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0$, $p > .05$.

Table 8

Multivariate, Within-level Binary Logistic Regression Model Examining Person-Specific Factors Regarding Subsequent Referral Status (N = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	80.833	<.001				
Age (years)			.881	-.126	<.001	.855-.908
Gender			.692	-.368	.006	.533-.898
Ethnicity			.957	-.044	.768	.712-1.285
Mental Health Diagnosis			.515	-.664	<.001	.385-.689
Hosmer Lemeshow Test	18.356	.019				
Trimmed Model	80.746	<.001				
Age (years)			.881	-.126	<.001	.855-.908
Gender			.691	-.369	<.001	.533-.897
Mental Health Diagnosis			.515	-.664	<.001	.385-.689
Hosmer Lemeshow Test	13.962	.083				

*$p < .05$; **$p < .01$.

Person-specific factors predicting disclosure and/or evidence status. In the same fashion as above regarding referral status, binary logistic regression was conducted to examine youth-specific factors that may relate to disclosure and/or presenting with

corroborating evidence at the initial referral. The full model included the following variables: child's age, gender, ethnicity, and mental health diagnosis. The resulting logistic regression model was statistically significant, $X^2(4) = 198.013$, $p < .001$, but the Hosmer and Lemeshow test indicated poor fit, X^2 (8) = 20.396, $p = .009$. The child's age, gender, and the presence of a mental health diagnosis contributed to the model while child's ethnicity was not significantly related. With the full model, 63.1% of youth were correctly classified as either children who would disclose or present with evidence or as children who would not disclose. Due to the poor fit, a trimmed model was examined that removed ethnicity as a variable. The trimmed model was also statistically significant, $X^2(4) = 197.470$, $p < .001$, but the Hosmer and Lemeshow test continued to indicate poor fit, X^2 (8) = 31.735, $p < .001$. With the trimmed model, 63.3% of children were correctly classified and the model captured 12.4% of the variation for the presence of disclosure and/or corroborating evidence. Due to the poor fit, resulting data should be interpreted with caution. See Table 9 for specific information for both models. The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.001$, $p > .05$.

Table 9

Multivariate, Within-level Binary Logistic Regression Model Examining Person-Specific Factors Regarding Disclosure and/or Corroborating Evidence Status (N = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	198.013	<.001				
Age (years)			1.010	.010	<.001	1.008-1.012
Gender			.551	-.596	<.001	.449-.676
Ethnicity			1.094	.089	.462	.862-1.388
Mental Health Diagnosis			.684	-.372	.004	.535-.88

Hosmer Lemeshow Test	20.396	.009				
Trimmed Model	197.470	<.001				
Age (years)			1.01	.010	<.001	1.008-1.012
Gender			.552	-.594	<.001	.450-.677
Mental Health Diagnosis			.689	-.373	.004	.535-.888
Hosmer Lemeshow Test	31.735	<.001				

*$p < .05$; **$p < .01$.

Person-specific factors summary. Children are more likely to return to the CAC with a subsequent abuse referral if they are female, younger, and if they have a mental health diagnosis at their initial referral. Ethnicity was not significantly related to a child's risk for returning with a subsequent referral on a bivariate or multivariate level (i.e., even when controlling for age, gender, and mental health diagnosis). Person-specific factors were less effective at predicting a child's disclosure or presence of evidence status at the multivariate level. However, older children, girls, and children with a mental health diagnosis were significantly more likely to disclose or present with evidence on the bivariate level. Children with sexualized behaviors were also more likely to not disclose or present with evidence on the bivariate level compared to children without reported sexual behavior problems.

Microsystem factors predicting subsequent referral status. To further examine how microsystem factors related to children's single or multiple referral status, binary logistic regression included the following variables: perpetrator relationship, presence of non-caregiving adults in the home, chaotic family factors (i.e., reported family history of substance abuse, domestic violence, or child witnessed domestic violence), and whether the child had an identified therapist at the initial referral to the

CAC. The full model was statistically significant, $X^2(4) = 26.330$, $p < .001$, with a Hosmer and Lemeshow test that indicated good fit, $X^2(8) = 10.453$, $p = .107$ (see Table 10). The perpetrator's relationship to the child and the presence of non-caregiving adults in the home did not contribute significantly to the model, but chaotic family factors did contribute significantly and having an identified therapist approached significance as a contributing variable. When controlling for the other variables in the model, children living in families with a history of substance abuse and/or domestic violence were at increased risk to return with a subsequent referral. With this model, 81.6% of youth were correctly classified regarding referral status. Due to the number of non-contributing factors, a trimmed model was examined using backward stepwise deletion with chaotic family factors and child's involvement with mental health services at the initial referral. The resulting trimmed model was also statistically significant overall, $X^2(4) = 23.799$, $p < .001$, with a Hosmer and Lemeshow test indicating adequate fit, X^2 (8) = 5.646, $p = .059$ (see Table 10). The fit of the full model was better compared to the trimmed model. The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.243$, $p > .05$.

A reported family history of substance abuse, domestic violence, and the child witnessing domestic violence significantly predicted children's risk for a subsequent referral to the CAC. Youth with these family factors were 59% more likely to be referred again for CSA. Having an identified therapist at the initial referral demonstrated a trend toward significance, indicating that children with a therapist were more likely to be referred again in the future.

Table 10

Multivariate, Within-level Binary Logistic Regression Model Examining Microsystem Factors Regarding Subsequent Referral Status (n = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	26.330	<.001				
Perpetrator Relationship			1.183	.168	.166	.932-1.501
Non-Caregiving Adults			.677	-.115	.410	.677-1.172
Chaotic Family Factors			.475	-.497	<.001	.475-.779
Identified Therapist			.626	-.230	.057	.636-1.007
Hosmer Lemeshow Test	10.453	.107				
Trimmed Model	23.779	<.001				
Chaotic Family Factors			.593	-.522	<.001	.464-.758
Identified Therapist			.789	-.236	.05	.623-1.0
Hosmer Lemeshow Test	5.646	.059				

*$p < .05$; **$p < .01$.

Microsystem factors predicting disclosure and/or evidence status. Binary logistic regression analyses examining microsystem factors and their relationship with youth's disclosure and/or corroborating evidence status included the following variables: perpetrator's relationship to child, presence of non-caregiving adults in the home, chaotic family factors (e.g., substance abuse, domestic violence, and/or child witnessing domestic violence), and child's involvement with a mental health therapist at the initial referral. The full binary regression model was statistically significant, $X^2(4) = 75.061$, $p < .001$, with a Hosmer and Lemeshow test indicating good fit, X^2 (6) = 4.372, $p = .626$ (see Table 11). The full model captured 4.9% of the variance for children's disclosure and/or evidence status. Overall, 59.1% of the children were correctly classified with the full model, with 78.1% of those who did disclose and 32.1% of those who did not disclose

correctly identified. A perpetrator's relationship to the child, involvement with a mental health practitioner, and stressful family environmental factors all contributed significantly to the full model, while the number of non-caregiving adults living in the child's home did not contribute to predicting disclosure/evidence status. When controlling for the other variables in the model, children with a familial perpetrator were less likely to disclose than those with a nonfamilial perpetrator. Not having an identified mental health provider at the initial referral was also associated with a reduction in the likelihood of disclosure and/or evidence. Living in homes where there was reported substance abuse and domestic violence was associated with an increase in the likelihood of disclosure and/or evidence.

A trimmed binary logistic regression model was examined that removed the variable regarding non-caregiving adults in the home but kept the remaining three that contributed significantly to the full model (i.e., perpetrator relationship, chaotic family factors, and identified therapist). The trimmed model was also statistically significant, $X^2(4) = 74.474$, $p < .001$, with a Hosmer and Lemeshow test indicating good fit, X^2 (5) = 3.547, $p = .616$ (see Table 11). The percentage of children correctly classified did not differ greatly from the full model (32.1% of those who did not disclose and 78.1% of those who did disclose were correctly classified). There was no change in the direction or strength of the relationships; children with a nonfamilial perpetrator, those with an identified therapist, and those with a history of substance abuse and/or domestic violence in their home are more likely to disclose sexual abuse or present with corroborating evidence. The likelihood ratio test determined that the trimmed model did not produce a

significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.004$, $p > .05$.

Table 11

Multivariate, Within-level Binary Logistic Regression Model Examining Microsystem Factors Regarding Disclosure/Evidence Status (n = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	75.061	<.001				
Perpetrator Relationship			.539	-.618	<.001	.447-.651
Non-Caregiving Adults			1.092	.088	.443	.872-1.366
Chaotic Family Factors			1.266	.236	.014	1.05-1.527
Identified Therapist			.594	-.520	<.001	.488-.724
Hosmer Lemeshow Test	4.372	.626				
Trimmed Model	74.474	<.001				
Perpetrator Relationship			.541	-.615	<.001	.448-.653
Chaotic Family Factors			1.275	.243	.011	1.058-1.537
Identified Therapist			.596	-.518	<.001	.489-.726
Hosmer Lemeshow Test	3.547	.616				

*$p < .05$; **$p < .01$.

Consistent with the bivariate results, multivariate analyses demonstrate that perpetrator relationship and involvement with mental health services at the initial referral both have a significant impact on the likelihood that a child will disclose sexual abuse or have evidence indicating that it occurred. Interestingly, while the report of chaotic family factors does not have a significant bivariate relationship with disclosure/evidence status, it is a significant contributor in the multivariate model. Also consistent with the bivariate results, the presence of non-caregiving adults in the child's home does not have a relationship at the multivariate level regarding disclosure/evidence status.

Microsystem factors summary. In summary, children with a reported family history of substance abuse, domestic violence, and the child witnessing domestic violence were significantly more likely to return to the CAC with a subsequent referral compared to children without those family environmental factors. Involvement with a therapist at the initial referral trended toward significance, suggesting that children with a therapist were more likely to return. Regarding disclosure and/or evidence status, children were more likely to disclose or have evidence if the perpetrator was not a family member, if the child had an established therapist at the initial referral, and if their family had a reported history of substance abuse and domestic violence.

Exosystem factors predicting subsequent referral status. Binary logistic regression included three variables hypothesized to be relevant to referral status at the children's exosystem-level: median neighborhood income, the percentage of adults living in the neighborhood with a high school degree or GED, and the percentage of adults living in the neighborhood with a Bachelor's Degree. At the bivariate level, children who returned to the CAC with a subsequent abuse referral had lower median household income compared to those who were singly-referred, while the educational attainment status of adults in the neighborhood was not significantly different based on the child's referral status. At the multivariate level, the full logistic regression model was significant overall, $X^2(3) = 10.494$, $p = .015$, but with a Hosmer and Lemeshow test indicating poor fit, $X^2(8) = 16.713$, $p = .033$ (see Table 12). The model captures only 0.8% of the overall variability for referral status and median income was the only variable that contributed to the model. With the model, 81.6% of children were correctly classified; all children were predicted to not return with a subsequent abuse referral.

To explore a trimmed model that included median household income and college degree attainment, a second binary logistic regression was run excluding high school degree attainment. The trimmed model was significant, $X^2(2) = 10.127$, $p = .006$, and with an improved fit on the Hosmer and Lemeshow test, $X^2(8) = 13.406$, $p = .099$ (see Table 12). However, it also captured only 0.8% of the overall variance for referral status. Income continued to be the only contributing variable to the model, with children with lower income more likely to return with a subsequent abuse referral. The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.012$, $p > .05$.

Table 12

Multivariate, Within-level Binary Logistic Regression Model Examining Exosystem Factors Regarding Subsequent Referral Status (n = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	10.494*	.015				
Median Neighborhood Income			1.000	.000*	.046	1.000-1.000
Percentage of High School Graduates in Neighborhood			.989	-.011	.544	.956-1.024
Percentage of College Graduates in Neighborhood			1.005	.005	.466	.991-1.020
Hosmer Lemeshow Test	16.713	.033				
Trimmed Model	10.127*	.006				
Median Neighborhood Income			1.000	.000*	.003	1.000-1.000
Percentage of College Graduates in Neighborhood			1.003	.003	.619	.990-1.016
Hosmer Lemeshow Test	13.406	.099				

*$p < .05$; **$p < .01$.

Exosystem factors predicting disclosure and/or evidence status. Exosystem-related factors of median neighborhood household income and the percentage of high school graduates and college graduates living in the area were examined at the multivariate level to determine if there was a multivariate relationship with disclosure/evidence status. At the bivariate level, living in an area with a higher percentage of adults with college degrees was significantly more common among children who presented without evidence and who did not disclose abuse. Neither median neighborhood household income nor the percentage of adults with high school degree attainment were significantly different between children who disclosed and those who did not disclose at the bivariate level. At the multivariate level, the full model was not significant $X^2(3) = 2.473$, $p = .480$. The Hosmer and Lemeshow test indicated good fit, $X^2(8) = .768$, $p = .768$ (see Table 13). The model only captured 0.02% of the variance in disclosure/evidence status; it incorrectly predicted that almost all children would present with a disclosure/evidence at the CAC (99.9%). Given that none of the variables contributed significantly to the multivariate model, a trimmed model was not examined.

Table 13

Multivariate, Within-level Binary Logistic Regression Model Examining Exosystem Factors Regarding Disclosure/Evidence Status (n = 2038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	2.473	.480				
Neighborhood Median Income			1.000	.000	.287	1.000-1.000
Percentage of High School Graduates in Neighborhood			1.021	.020	.142	.993-1.049
Percentage of College Graduates in Neighborhood			.994	-.006	.302	.983-1.005
Hosmer Lemeshow Test	4.899	.768				

*$p < .05$; **$p < .01$.

Exosystem factors summary. When controlling for educational attainment in the neighborhoods, children with lower median neighborhood household income were more likely to return to the CAC with a subsequent sexual abuse referral compared to children living in areas with higher median income. Neighborhood household income was not related to the child's disclosure/evidence status when controlling for education attainment of the adults living in the child's area. Educational attainment itself was not a significant predictor for either referral status or disclosure/evidence status after controlling for neighborhood income.

Factors predicting referral status across contextual levels. All variables of interest (described in the above sections) were included in the full model to examine predictors of a subsequent referral for CSA across all contextual levels. The full model captured 8.4% of the overall variance in referral status and was significant, $X^2(11) = 108.552$, $p < .001$. However, the Hosmer and Lemeshow test indicated poor fit, $X^2(8) =$

15.657, $p = .048$. Age, gender, having a mental health diagnosis, chaotic family factors, and having an identified therapist contributed significantly to the model. See Table 14 for additional details. Using backward deletion method, a trimmed model was examined and demonstrated good fit, $X^2(8) = 12.131$, $p = .145$ and was significant at the omnibus level, $X^2(11) = 106.677$, $p < .001$. The trimmed model included age, gender, mental health diagnosis, chaotic family factors, involvement with a mental health practitioner, and income as variables. All variables contributed significantly to the multivariate analysis. When controlling for all other variables in the model, being younger at the initial referral, being female, having an identified therapist, and having a mental health diagnosis were associated with increased likelihood of receiving a subsequent referral. Income was also a significant predictor when controlling for other variables, with lower median neighborhood household income predicting an increased risk of returning. The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.032$, $p > .05$

Table 14

Multivariate, Across-Levels Binary Logistic Regression Models Examining Factors Regarding Subsequent Referral Status (n = 2,038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	108.552	< .001				
Age (years)			.881	-.127	< .001	.854-.909
Gender			.699	-.357	.008	.538-.910
Ethnicity			.882	-.125	.420	.651-1.196
Mental Health Diagnosis			.610	-.494	.001	.451-.824
Perpetrator Relationship			.975	-.025	.841	.761-1.250
Non-Caregiving Adults			.898	-.108	.451	.678-1.189
Chaotic Family			.666	-.407	.002	.517-.858

Factors						
Identified Therapist			.707	-.346	.007	.550-.910
Median Neighborhood Income			1.000	.000	.132	1.000-1.000
% of High School Graduates in Neighborhood			.986	-.014	.437	.951-1.022
% of College Graduates in Neighborhood			1.006	.006	.457	.990-1.022
Hosmer Lemeshow Test	15.657	.048				
Trimmed Model	106.677	< .001				
Age (years)			.882	-.126	< .001	.855-.909
Gender			.697	-.361	.007	.536-.906
Mental Health Diagnosis			.606	-.501	.001	.448-.818
Chaotic Family Factors			.664	-.409	.001	.517-.854
Identified Therapist			.708	-.345	.007	.551-.910
Median Neighborhood Income			1.000	.000	.012	1.000-1.000
Hosmer Lemeshow Test	12.131	.145				

*$p < .05$; **$p < .01$.

Factors predicting disclosure/evidence status across contextual levels.

Consistent with the method described above, all variables of interest were included in a full logistic regression model to examine predictors of a child presenting with a disclosure about and/or evidence of CSA across all contextual levels. The full model captured 15% of the overall variance in disclosure and/or evidence status and was significant, $X^2(11) = 240.635$, $p < .001$. The Hosmer and Lemeshow test also indicated good fit for the model, $X^2(8) = 11.067$, $p = .198$ (See Table 15). The full model correctly classified 49% of the children who did not disclose or present with evidence and it correctly classified 75% of those who did disclose or present with evidence. Older

children, girls, children with a mental health disorder, children with a nonfamilial perpetrator, children in a family with substance abuse and/or domestic violence, and children involved in therapy had an increased likelihood of disclosing. The child's ethnicity, living with non-caregiving adults, median neighborhood income, and the educational attainment of adults living in the neighborhood did not contribute to the model. After utilizing the backwards deletion method, a trimmed model including age, gender, mental health disorder status, perpetrator relationship, chaotic family factors, and therapy involvement was identified. The trimmed model captured 15% of the variance in disclosure/evidence status and was also significant, $X^2(6) = 234.525$, $p < .001$. The Hosmer and Lemeshow test indicated good fit, $X^2(8) = 10.802$, $p = .213$. Each variable contributed significantly to the trimmed model and it had an overall correct classification rate of 64.2% (specifically, 49% of those who did not disclose and 75% of those who did disclose were correctly classified). The likelihood ratio test determined that the trimmed model did not produce a significant change in the Chi-Squared statistic compared to the full model, $X^2(2) = 0.155$, $p > .05$.

Table 15

Multivariate, Across-Levels Binary Logistic Regression Models Examining Factors Regarding Presence of Disclosure/Evidence (n = 2,038)

Variables	X^2	*p*	*Exp(B)*	*B*	*p*	95% CI
Full Model	240.635	< .001				
Age (years)			1.114	.108	< .001	.1.087-1.141
Gender			.521	-.652	< .001	.424-.642
Ethnicity			1.173	.159	.204	.917-1.499
Mental Health Diagnosis			.716	-.334	.012	.551-.931
Perpetrator Relationship			.648	-.433	< .001	.531-.792
Non-Caregiving Adults			1.069	.067	.575	.846-1.351
Chaotic Family Factors			1.302	.264	.009	1.068-1.586
Identified Therapist			.666	-.406	< .001	.539-.823

Median Neighborhood Income			1.000	.000	.192	1.000-1.000
Percentage of High School Graduates in Neighborhood			1.026	.025	.088	.996-1.056
Percentage of College Graduates in Neighborhood			.990	-.010	.098	.977-1.002
Hosmer Lemeshow Test	11.067	.198				
Trimmed Model	234.525	< .001				
Age (years)			1.113	.107	< .001	1.086-1.139
Gender			.525	-.643	< .001	.427-.646
Mental Health Diagnosis			.715	-.335	.012	.552-.928
Perpetrator Relationship			.654	-.425	< .001	.535-.798
Chaotic Family Factors			.1.294	.258	.010	1.065-1.573
Identified Therapist			.672	-.398	< .001	.545-.828
Hosmer Lemeshow Test	10.802	.213				

*$p < .05$; **$p < .01$.

Aim 2: Identify factors that predict group membership (based on number of referrals and presence of disclosure/evidence).

This exploratory aim examined factors from the levels of the bioecological model that differentiate the identified groups of children. Discriminant analyses were used to determine if specific variables of interest could accurately differentiate between the four identified groups of children (e.g., singly referred children who disclose, multiply referred children who disclose multiple times, singly referred children who do not disclose, and multiple referred children who do not disclose). Table 16 presents a summary of the univariate and bivariate analyses. Based on ANOVA results, there were significant overall differences between the groups for all of the variables included (i.e., age, gender, mental health diagnosis status, perpetrator relationship, therapeutic services engagement, chaotic family factors, and median neighborhood household income).

Table 16

Bivariate and Univariate Results Summary for Variables across Groups; Means (Standard Deviations) and ANOVA results

Variable	Group 1	Group 2	Group 3	Group 4	F (*p*)
Age (years)	10.9 (4.2)	8.9 (3.9)	8.5 (4.0)	7.1 (3.2)	76.086 ($p < .001$)
Gender	.77 (.42)	.79 (.41)	.61 (.49)	.66 (.48)	20.466 ($p < .001$)
Mental Health Diagnosis	.21 (.41)	.28 (.45)	.13 (.34)	.17 (.37)	9.426 ($p < .001$)
Perpetrator Relationship	.46 (.50)	.37 (.48)	.29 (.46)	.30 (.46)	16.330 ($p < .001$)
Therapeutic Services Engagement	.35 (.48)	.37 (.48)	.23 (.42)	.36 (.48)	11.038 ($p < .001$)
Chaotic Family Factors	.55 (.49)	.73 (.44)	.64 (.48)	.68 (.47)	10.861 ($p < .001$)
Median Neighborhood Income	$40,236 ($9,829)	$38,344 ($9,270)	$40,397 ($9,990)	$38,858 ($8,575)	3.325 ($p = .019$)

Multivariate analyses revealed a significant difference between the four groups and two significant functions. The first function captured 12% of the variance (R^2-canonical = .12) with a Wilks' Lambda = .839, $X^2(21) = 355.447$, $p < .001$. The second function captured less of the variance (R^2-canonical = 3.6%) but remained significant with a Wilks' Lambda = .958, $X^2(12) = 87.846$, $p < .001$. A third function was nonsignificant and captured only .05% of additional variance. Overall, the analyses have a 53.8% correct re-classification (chance was 25%) of the children in groups. The model was most accurate at predicting the children who would be referred only once and disclose (76.4% accurately classified) and also better at classifying those who would be referred only once and not disclose (50.9% correctly classified). The model inaccurately classified all of the multiply referred children. Table 17 shows the standardized

canonical coefficients and the structure weights, revealing that all of the variables contributed to the multivariate effect.

Table 17

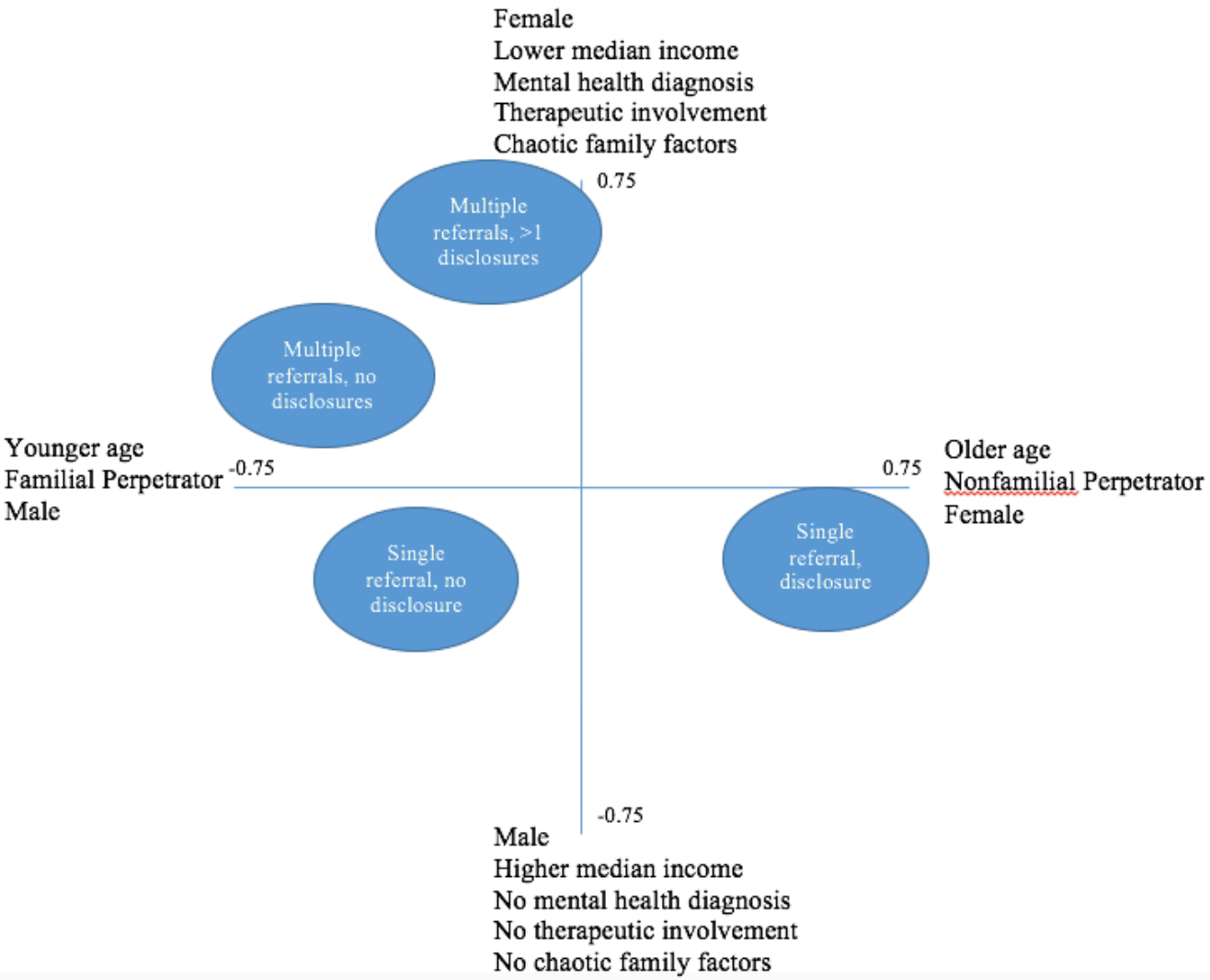
Standardized Canonical Coefficients and Structure Weight from the Discriminant Model

	Standardized Coefficients		Structure Weights	
Variable	Function 1	Function 2	Function 1	Function 2
Age (years)	.749	-.500	.882	-.237
Gender	.297	.583	.399	.443
Perpetrator Relationship	.252	.217	.409	.096
Chaotic Family Factors	-.253	.223	-.263	.346
Therapeutic Services Engagement	.184	.463	.221	.459
Mental Health Diagnosis	.052	.465	.193	.448
Median Household Income in Zip Code	-.006	-.306	.046	-.343

Follow-up LDF analyses included pairwise comparisons using the discriminant scores as the dependent variables and the grouping variable as the independent variable. The first discriminant function (i.e., age, perpetrator relationship, and gender) successfully differentiated all of the groups from one another ($p < .001$). The second discriminant function (i.e., gender, income, mental health diagnosis, therapeutic involvement, and familial substance abuse or domestic violence) successfully differentiated each group from one another ($p < .001$) except for distinguishing between the multiply-referred children who did and did not disclose ($p = .119$). Therefore, the model does better at classifying children as either singly- or multiply-referred.

Figure 1 gives a graphical depiction of the multivariate results. As can be seen, singly referred children who disclose tend to be older, present with a nonfamilial perpetrator, and be female. Multiply referred children who disclose multiple times tend to be female, have a mental health disorder, live in a lower income neighborhood, have an identified therapist, and live in a family with a history of substance abuse and domestic violence. Singly referred children who do not disclose tend to be younger, male, and have a familial perpetrator. Similarly, multiply referred children tend to be younger, male, have a familial perpetrator, and have additional family factors such as substance abuse, domestic violence, and live in an area with a lower neighborhood median household income.

Figure 1.
Graphical depiction of discriminant function analysis predicting group membership.



CHAPTER IV: DISCUSSION

The purpose of the present study was to identify factors that predict that a child will return to a Child Advocacy Center (CAC) with a subsequent sexual abuse referral. A second goal was to identify factors that predict that a child will disclose sexual abuse or present with corroborating evidence. The use of archival data provided a significant length of time with a range of 4 to 14 years in which children could be prospectively followed to examine if they received additional sexual abuse referrals. Bivariate and multivariate analyses identified several variables of interest that were associated with both disclosure/evidence and with subsequent referrals. Organized across levels of Bronfenbrenner's bioecological model, the variables examined provide additional information specific to the child or the environment in which the child is developing that can begin to identify those who are at greatest risk of subsequent referrals.

Occurrence of Subsequent Referrals and Disclosure/Evidence

In the current sample, 17% of the children returned to the CAC with a subsequent referral within the timeline of the study (841 children returned out of 4971; 15.2% of all boys and 17.8% of all females returned). Girls were significantly more likely to return than boys. The total percentage of children who returned is greater than previous research has found with a smaller sample of youth at the same CAC (Pittenger et al., 2018), which found that 11.1% of a sample of 1,912 children who disclosed sexual abuse at their initial referral re-presented with a new sexual abuse referral with a different perpetrator between 2002 and 2009. Although being referred for a subsequent abuse allegation does not necessarily provide the information necessary to substantiate that the child was indeed revictimized, it is striking that re-abuse rates during childhood have

been found to be between 20% and 39% in other studies (Finkelhor, Ormrod, & Turner, 2007; Swanston et al., 2002). The current study's findings that 17% of the children return approximates these findings and suggest that the experience of being identified as at-risk for having experienced sexual abuse increases the likelihood that there will be subsequent concern during childhood and adolescence.

Regarding disclosure and corroborating evidence rates in the current study, 43% of the children disclosed during the forensic interview at the CAC or presented with corroborating evidence. Consistent with previous research (e.g., Alaggio, Collin-Vézina, & Lateef, 2019), gender and age both significantly influenced disclosure status. Out of the boys and girls in the sample, 29.7% of the boys (492 out of 1654) and 50.2% of the girls (1664 out of 3314) disclosed sexual abuse and/or had evidence suggestive of abuse. For boys who disclosed or had evidence, the mean age was 8.6 years old while the mean age of girls who disclosed was 9.9 years old. There are a number of social and cultural reasons that may explain why boys are less likely to disclose abuse and why the boys who do disclose are younger than the girls who disclose. Despite the strides that have been made in spreading awareness of sexual abuse rates and in encouraging youth and adults to tell, cultural norms and stereotypes continue to exist that encourage boys to be "manly" by defending themselves and others. Younger boys may be more willing to tell that they have been sexually abused because they have not yet reached an age when they have internalized the belief that boys should be able to stop anyone from hurting them. Shame and stigma can be a part of the sexual abuse experience for both males and females, but they can present unique issues for boys. The question of sexuality and

sexual orientation is also more likely to be present with boys because the majority of sexual offenders are men.

Even with multiple studies indicating that the re-abuse rates are approximately within the same range, there are several reasons why the percentage of children who return with a subsequent referral in this study may be an underestimate of all the children who should receive referrals. One highly plausible reason for a child not being referred for a subsequent sexual abuse concern is that the child may have moved out of the catchment area of the local CAC. Unfortunately, if they do experience further abuse and disclose, the records would not be linked or traceable to the initial referral at the CAC where the study was conducted. Therefore, children who move away are lost to follow-ups regardless of their subsequent abuse status.

A second reason that a child would not return with an additional referral is if they do not disclose the additional abuse to anyone. Despite prevention and awareness efforts, the disclosure of sexual abuse remains a challenging experience for both youth and adults. The impact that the sexual abuse disclosure can have on the child, the family, and relationships within the family (particularly if the perpetrator is a family member) can be widespread and significant. Unfortunately, few cases of child sexual abuse have enough evidence for police to arrest the offender or for there to be prosecution and court proceedings. The age of the child also plays a role in which cases proceed with prosecution. In 2000, the National Center for Juvenile Justice determined that 19% of the sexual abuse offenders of children under age 6 were arrested; 33% of the offenders of children between age 6 and 11 were arrested; and 32% of the offenders of children ages 12-17 were arrested (Snyder, 2000). Only about 11-17% of child sexual abuse cases

result in a criminal trial where children testify (Wolfe & Birt, 1997). If a child experiences a lack of familial support after their initial abuse disclosure, which may or may not result in legal ramifications for the perpetrator, the child may not want to disclose any additional abuse to avoid re-experiencing the negative consequences of disclosure again. From a clinical perspective, it is not uncommon for children to express doubts as to whether they should have disclosed due to the turmoil that often results in their families. Furthermore, children cite the fact that the perpetrator did not receive any sanctions as a reason for why it was "not worth it" to tell.

Similarly, a third reason why children may not return to the CAC if they experience subsequent abuse is because they did not receive adequate services and support after the initial abuse experience (e.g., therapeutic services and family support) and they therefore do not see a benefit to disclosing. For all sexual abuse disclosures (both initial and subsequent), themes of shame, self-blame, and fear have been recognized as deterrents to telling anyone about the abuse (Alaggia et al., 2019). Given that shame and self-blame for sexual abuse are topics that can be underscored from a therapeutic angle and can decrease over the course of treatment (Biles et al., 2018), they should be highlighted from a preventive perspective. In addition to self-blame, blame from others could also be significant factors in a child's lack of disclosure of subsequent abuse. Adolescents often experience more blame from others than younger children do following an abuse experience and the difference can be heightened if the adolescent also has behavior problems or did not tell about the abuse immediately (Theimer & Hansen, 2017). Interventions which empower youth to process their emotions related to the abuse (e.g., notions of self-blame) and teach youth assertiveness skills are likely important to

increasing youth's willingness to disclose when subsequent sexual abuse occurs regardless of other inhibitory factors.

The Bioecological Model Applied to Sexual Abuse Referrals and Disclosure

Process. Within Bronfenbrenner's bioecological model, the process level refers to the interactions between the individual and the environment over time that are the primary source of human development (e.g., parent-child interactions, solitary vs. group play). The experience of sexual abuse can shape the child's perspective and interactions with others significantly and can be considered a process that can have an impact on a child's development. While there are many protective factors at play which can serve to ameliorate the impact on children (e.g., caregivers who believe the child, stop the abuse, and provide access to therapeutic services if needed), there are also additional factors that place sexually abused children at risk for experiencing subsequent sexual victimization.

Person-specific factors. According to the model, person-specific factors are characteristics and experiences unique to the individual that influence the proximal processes the child engages in with the environment. Demand characteristics including age, ethnicity, gender, presence of a mental health diagnosis, and presence of sexualized behaviors were hypothesized to be factors that would impact the child's risk of returning with a subsequent abuse referral.

Consistent with prior research (Miron & Orcutt, 2014; Pittenger et al., 2018) and as hypothesized, younger children were more likely to return to the CAC with a subsequent referral than older children. Age was a significant differentiating factor in both bivariate and multivariate analyses. The age findings may be confounded by the fact that the CAC does not generally accept referrals for children after the age of 19.

Youth who are identified and referred at an earlier age have a longer period of time to be re-referred if there are additional concerns before they age out of the CAC, while youth who are older at the initial referral may experience additional sexual abuse or sexual assault but would have been redirected to other avenues of reporting and interviewing if they are older than 19. Of note, youth in the study had a minimum of four years to return with a subsequent referral (i.e., children were included if their initial visit occurred prior to 2013. Another possibility is that younger children (who are significantly less likely to disclose abuse during the initial forensic interview than older children) receive subsequent CSA referrals because they continue to develop in environments where there are ongoing risks for their safety. A referral occurs when a child tells a trusted adult about the abuse and it is reported to the authorities or when a person reports sufficient evidence to consider the child at-risk of having been sexually abused even if there has not been a prior disclosure from the child. Prior research (Miron & Orcutt, 2014) also used a youth sample and found support for a compounding risk of victimization across the lifespan if a child experienced adverse events in childhood. Specifically, they found that sexual abuse during childhood increased risk for sexual victimization in adolescence, and that sexual abuse in adolescence increased risk for sexual assault in adulthood. The current study supports the notion that childhood experience of sexual victimization is associated with increased risk during adolescence.

As hypothesized and consistent with Pittenger and colleagues' (2018) findings on revictimization, girls were significantly more likely to return to the CAC with a subsequent abuse referral than boys. Given the epidemiological data that suggests that 25% of women and 16% of men have an initial sexual abuse experience prior to age 18

(CDC, 2010), the present study's findings are interesting because they provide additional light on the children who are being identified as at-risk for experiencing CSA multiple times. For boys in the current sample, 15.2% of those with an initial referral received a subsequent CSA referral to the CAC while 17.8% of girls were re-referred at a later date during childhood or adolescence. The question at hand is even larger than the estimate that 1 in 4 girls and 1 in 6 boys experience CSA, because a significant percentage of these children either disclose additional abuse or are identified as needing another referral due to behavior concerns or environmental exposure to risk factors.

Cultural gender norms may be contributing to the difference between girls and boys being re-referred, given that boys are less likely to disclose abuse (Alaggia et al., 2019). Girls were also more likely to disclose abuse at their initial referral than boys, which supports a trend found in other studies that have explored the topic of gender differences in disclosure (O'Leary & Barber, 2008; Ullman & Filipas, 2005). However, literature has been mixed on the subject and Goodman-Brown and colleagues (2003) did not find a gender difference in disclosure status. Another interesting point to consider at the broader level of CSA prevalence rates is that a large number of CSA victims do not disclose abuse until adulthood and therefore may not captured in the current study's sample of children who have been referred to the CAC (Collin-Vézina et al., 2015; Easton, 2013; Hunter, 2011; McElvaney, 2015; Smith et al., 2000). Age was also significantly related to disclosure status; older children were more likely to disclose or present with evidence than younger children. Older youth may feel more comfortable talking about the abuse to a forensic interviewer because they may have a better

understanding of the reason for and importance of disclosing (e.g., to stop the abuse from continuing). Older children may also feel more agency and empowerment.

Ethnicity was also explored as a variable of interest that prior research has identified as related to sexual abuse victimization (e.g., Friedenberg et al., 2013; Kalof, 2000; Oshima, Jonson-Reid, & Seay, 2014; Sedlak et al., 2010). In the current study, ethnicity was not a factor that was related to subsequent abuse referrals at the bivariate or multivariate levels. It also did not have a relationship with disclosure status at the child's initial referral to the CAC. Due to the geographical region of the current study (Midwestern United States) which has a racial composition of primarily European American populations, the majority (76.7%) of children in the sample were of European American descent. African American children represented 9.1% of the sample, Hispanic children represented 7.9%, Native American children constituted 2.3%, and Asian children were 1.3% of the sample. The relatively small sample sizes for minority youth may be a contributing factor to the lack of support for ethnicity as a factor related to disclosure status at the initial referral and re-referral status in the current study.

A child's psychosocial functioning and mental health symptomatology can have a widespread impact on their life experiences and interactions in a myriad of ways. The present study found support for children with a mental health diagnosis to be more likely to disclose abuse during their initial referral and forensic interview at the CAC and to also be more likely to receive a subsequent abuse referral at a later point in time. Only one other study (Turner et al., 2010) was found in a literature search to have considered children's mental health status as a factor that may influence risk for abuse. They found that children with high internalizing and externalizing symptoms were at increased risk

for sexual victimization. Similarly, the current study's findings are consistent regarding the influence that mental health concerns can have on children's life experiences, both from a willingness and likelihood to disclose abuse and from a risk for abuse perspective. A closely related aspect to having a mental health diagnosis at the time of the initial referral to the CAC is that the child must have had prior engagement with mental health services in order to receive the diagnosis. This will be explored further in the microsystem levels discussion, but it is worthwhile to note here that children with a mental health diagnosis may be more willing to disclose abuse and also more likely to be identified as needing additional referrals for concerns because they may have increased access to a trusted and safe adult whom they can tell. Therefore, while having a mental health diagnosis places a child at increased risk of returning with subsequent concerns of abuse, it is also associated with an increased likelihood that the child will tell if abuse has in fact occurred.

A relatively common reason young children in particular are identified as being at risk for CSA is when they display sexualized behaviors. A challenge in the current study was that additional information was not available regarding the type of sexualized behaviors that were present at the referral. For example, consider these scenarios: a three-year-old girl self-stimulating during naptime at preschool, a six-year-old boy engaging in sexual activity with three other similar-aged peers, and a nine-year-old boy engaging in intercourse with a similar-aged girl. These scenarios provide an example of the types of sexualized behaviors that can lead a child to be identified as being at risk of CSA and receive a referral to the CAC. It is challenging to better understand sexualized behaviors because the children may have learned the behaviors from a variety of sources

other than the experience of sexual abuse. Normative sexual behavior and interest may be taken too far without adult supervision, or children may have found (inappropriate) access to pornography in the home. In the current study, only 14.9% of the sample (743 youth) presented with sexualized behaviors and the presence of the behaviors was not identified as a factor that increases the likelihood that a child will return to the CAC for another sexual abuse referral. Both bivariate and multivariate analyses supported the lack of a relationship. Interestingly, children referred to the CAC with sexualized behaviors were significantly more likely to not disclose and to not present with any corroborating evidence than children without sexualized behaviors. Only 10% of youth with sexualized behaviors disclosed or had other evidence suggestive of abuse. This supports the notion that not all children who display sexualized behaviors do so as a consequence of experiencing abuse. Not only is it difficult to ascertain where children may have learned age-inappropriate sexual behaviors, it is also a possibility that children are referred due to a lack of understanding of age-appropriate sexual behavior.

Microsystem factors. Within Bronfebrenner's model, the microsystem refers to variables within the child's environment which have an impact on the child's development and interaction with the world around them. Specific variables identified as part of the microsystem that were evaluated in the current study included abuse severity (i.e., sexual abuse is an event that is perpetrated on the child rather than intrinsic to the child), the presence of non-caregiving adults living in the child's home, the perpetrator's relationship to the child, the child's reported family history of substance abuse and domestic violence, and the child's engagement with therapeutic services at the time of the initial referral.

The severity of the alleged abuse was explored as a variable of interest that has been positively associated with revictimization and disclosures of abuse in previous research (Casey & Nurius, 2002; Kogan, 2004; Leach et al., 2017; Lippert et al., 2009; Simmel et al., 2012; Swanston et al., 2002). In the present study, there was no bivariate relationship found between alleged abuse severity and returning for a subsequent referral or disclosing abuse during the initial forensic interview. However, due to missing data and the archival nature of the report of alleged abuse, there were limited cases in which abuse severity could be considered. Multivariate analyses were not able to include abuse severity as a variable due to the extent of missing data. Therefore, while the current study does not provide additional evidence for a relationship between abuse severity and abuse disclosure and revictimization status, it should not be viewed as evidence against it. If possible with additional data from this setting, future research should examine the potential relationship with a larger sample size that contains less missing data for this particular variable.

Another important aspect of the microsystem involves the number of non-caregiving adults living in the home with the child. Pittenger and colleagues (2018) found support for a link between revictimization by a different perpetrator and living with additional non-caregiving adults. In their study, the relationship maintained even after controlling for other variables such as socioeconomic status. For the current project, contrary to the hypothesis, living with non-caregiving adults in the home only approached bivariate significance in relation to subsequent sexual abuse referrals. It was not related to disclosure status during the forensic interview at either the bivariate or multivariate analysis levels. The association between living with non-caregiving adults

and re-referrals was no longer significant at the multivariate level, after controlling for other variables such as substance abuse and domestic violence in the home. Exposure to non-caregiving adults in the home may contribute to lower parental surveillance and increased access to children from the perpetrator's perspective, but it is interesting to note that chaotic family factors such as substance abuse and domestic violence (which may overlap with living with non-caregiving adults in many circumstances) appear to be the major contributors to re-referrals.

Another microsystem-level factor explored was the child's relationship to the perpetrator and how it may influence disclosure and subsequent abuse referrals. On the bivariate level, having a nonfamilial perpetrator was positively correlated with older child age and the child disclosing abuse during the initial forensic interview. In addition, children with familial perpetrators were significantly more likely to have a history of familial substance abuse and domestic violence. While perpetrator relationship was not associated with additional referrals to the CAC, it continued to be a predictor of disclosure status after controlling mental health treatment and familial substance abuse and domestic violence. Research in the field has been mixed thus far; for example, Azzopardi and colleagues (2014) did not find that perpetrator relationship predicted disclosure while Goodman-Brown and colleagues (2003) and Hershkowitz, Lanes, and Lamb (2007) found that children were less likely to disclose if the perpetrator was a family member or lived in the home. The results of the present study are consistent with and lend further evidence to the latter research studies suggesting that children are more comfortable disclosing abuse when the perpetrator is extrafamilial. There are important implications in these findings because of the complex nature of a child's disclosure, the

oftentimes negative and wide-reaching consequences of a disclosure for many families when the perpetrator is intrafamilial, and the importance of children disclosing in spite of those consequences in order to stop the abuse. Unfortunately, the child's fear of negative results (e.g., disruption within the family, loss of income, additional stress on the mother) may impede them from disclosing the abuse.

A third microsystem-level factor examined included the caregiver-reported family history of substance abuse, domestic violence, and the child witnessing domestic family in the home. Family history of other family members experiencing sexual abuse was also a variable of interest but it was not able to be included in the present study's analyses due to the extent of missing data. Concerning the factors of substance abuse and domestic violence that were able to be examined, children with a history of living in such environments were significantly more likely to return to the CAC with additional referrals. Even after controlling for age, gender, mental health disorder status, and therapy involvement, the chaotic family factors of substance abuse and domestic violence continued to be significant predictors of returning to the CAC with a later referral for CSA. They were also more likely to disclose abuse at the initial referral. These results are consistent with previous research on the subject which have consistently found that domestic violence in the home is related to risk for CSA (e.g., Bowen, 2000; Holden, 2003; Kellogg & Menard, 2003; McCloskey & Bailey, 2000). While parental substance abuse has been examined on a scale of child maltreatment as a whole, the current study provides additional support for a relationship between risk for CSA and parent drug use. In summary, identifying the children at the initial referral who have family history of substance abuse and domestic violence is an essential step in identifying those at risk for

returning to the CAC for subsequent abuse referrals. The environment in which the child is developing presents the child with additional risks such that CSA may be only one piece of the picture. Recognizing that parental substance abuse and domestic violence are not uniquely impacting the parents is not new information but continues to be a critical message.

The final factor at the microsystem level is the child's engagement with therapeutic services at the initial referral. There is overlap with this concept because children with a mental health diagnosis are also more likely to have an identified therapist when they are initially referred to the CAC (as discussed in the person-specific factors section above). Unlike Pittenger and colleagues' (2018) findings where the effect between therapist involvement and revictimization did not persist after accounting for other factors, the present study found that children with a therapist were significantly more likely to disclose CSA during the initial forensic interview and also more likely to return to the CAC with a subsequent referral for CSA, even after controlling for age, gender, familial substance abuse and domestic violence history, and the child's mental health diagnosis. There are multiple possible explanations for the fact that being in therapy could be predictive of disclosure status and re-referrals. First, children with a supportive therapeutic relationship may be more likely to disclose in a forensic interview because they are accustomed to discussing challenging situations and emotions with their therapist. Second, there may be a surveillance effect where children seeing a therapist are more likely to have an adult who may recognize and note concerns that lead to a subsequent referral to the CAC. Third, children with an identified therapist at the initial referral may have significant behavior challenges that unfortunately place them at risk for

subsequent CSA if the environment around them is not adequately safe or if they live in environments with cumulative risk (e.g., parental substance abuse, domestic violence, etc.). In summary, there are several reasons why children with mental health involvement at the time of the initial referral are more likely to disclose abuse and more likely to return with subsequent abuse referrals.

Exosystem factors. The exosystem includes the wider contexts (e.g., community factors, neighborhood factors) that interact with the child's more immediate world and have the potential to shape the child's development indirectly. The present study examined median neighborhood household income for the child's zip code at the time of the initial referral as one aspect of the exosystem and the neighborhood percentage of high school or college graduates as a second aspect of the exosystem.

Supporting the original hypothesis and consistent with other research on the subject (e.g., Drake et al., 2003; Ernst, 2000; Pittenger et al., 2018), children living in areas with fewer financial resources were more likely to be re-referred to the CAC at a later date for CSA. This effect persisted even after controlling for other predictive variables (e.g., neighborhood level of education, child's age, gender, mental health diagnosis, and therapy involvement). With the present study, the level of education for adults in the neighborhood was not a significant predictor of the child returning to the CAC. Therefore, these results are not entirely consistent with Pittenger and colleagues' (2018) model that found that the effect between income and revictimization disappeared after accounting for educational status of the adults in the child's neighborhood. The current study has a significantly larger sample size and included all children who were referred to the CAC for sexual abuse allegations during a greater period of time, which

may account for the difference in findings. While continuing to provide education to the public that CSA can occur to children regardless of their socioeconomic status, it is important to acknowledge that living in zip codes with lower median incomes does place children at increased risk of being referred to the CAC for sexual abuse concerns multiple times.

Regarding exosystem factors and disclosure status, exploratory analyses in the present study identified a bivariate relationship indicating that children living in areas with more adults who have college degrees were less likely to present with evidence or disclose sexual abuse at the initial referral. However, the relationship did not persist after accounting for median neighborhood income and the model of exosystem-specific variables was not significant. Median household income and the percentage of high school graduates in the neighborhood did not reflect changes in disclosures at the bivariate or multivariate levels. In summary, without considering other factors, income and educational status of adults in the child's neighborhood alone cannot account for disclosure of CSA during forensic interviews or for subsequent referrals for CSA.

Interactions across systems. Children do not develop without influences from their environment, and therefore it was essential to not only consider factors within systems but to also examine interactions across systems. Consistent with prior research (Pittenger et al., 2018), correlational analyses indicated that all factors of interest had significant relationships both within the same system and with other systems. Person-specific, microsystem, and exosystem factors interact with each other and appear to produce cumulative risk in regards to child sexual abuse disclosure and subsequent referrals to the CAC.

The most interesting ones to discuss include person-specific variables (e.g., the child's age at the initial referral) and ways in which they interacted with other systems. As discussed above, younger children were more likely to be re-referred and less likely to disclose during their initial forensic interview. Age has been described as a stable predictor of disclosure after researchers conducted a meta-analysis of facilitator and barriers to disclosure (Alaggia et al., 2019). The current project adds additional support to their findings. Despite excellent current standards of practice where children go into rooms with developmentally appropriate toys and a purposefully child-friendly atmosphere, some younger children may require extended forensic interviews before they feel comfortable enough to tell if they have experienced any sexual abuse (Cronch, Viljoen, & Hansen, 2006). Older children may better grasp the reason for the interview and may either not disclose on purpose (e.g., to protect the perpetrator or their family) or may disclose because they understand the adult is there to help stop the abuse from continuing. Overall, older children's understanding of the situation of the forensic interview is likely to be more advanced.

Other significant interactions of note include the finding that older children were more likely to have a mental health disorder and to be involved with a therapist at the time of their initial referral, which was consistent with prior research on the subject (Kendall-Tackett et al., 1993). Maniglio (2009) conducted a review of the sexual abuse literature and determined that the experience of CSA is a general, nonspecific risk factor for psychopathology. However, his review relates to the consequences following CSA whereas the current study examined the presence of a mental health disorder at the time of the initial referral. An important confounding factor to consider is that the current

study was unable to examine a time frame during which the child was given the mental health diagnosis. For example, a child could have developed symptoms of a mood-related disorder after the abuse began and could have begun therapy and received a diagnosis before telling anyone about the abuse. In this situation, the mental health problem could be considered a result of or related to the abuse itself. In another scenario, a child could have had significant challenges with hyperactivity, impulsivity, and inattention, received a psychological evaluation, and been diagnosed with Attention Deficit/Hyperactivity Disorder prior to any abuse. In the second scenario, the mental health disorder cannot be considered a consequence of the abuse because it pre-dated any abuse. Therefore, it is difficult to parse out the full relationship between mental health disorders and therapist involvement. Children with mental health disorders could be at greater risk for CSA due to within-person vulnerabilities or it could be more related to perpetrator factors (e.g., the perpetrator chooses children who are already vulnerable due to individual and environmental factors, as discussed by Rebocho & Silva, 2014).

A third variable of interest that maintained significance across systems with both bivariate and multivariate analyses was the reported familial history of substance abuse and/or domestic violence (described more succinctly as "chaotic family factors"). Substance abuse and domestic violence in the family had a significant relationship with almost every other variable of interest examined in the study. On a bivariate level, youth living in a family with caregiver-reported substance abuse and/or domestic violence were more likely to be re-referred to the CAC for additional referrals, to not disclose abuse at the initial referral, to be younger in age, to be European-American, to have a mental health diagnosis, to be involved in therapy, to have a nonfamilial perpetrator, to have

non-caregiving adults living in their home, and to live in an area with fewer resources and among adults with lower educational attainment. Previous research has supported several of these findings as risk factors for CSA (e.g., Finkelhor, 1993; Pittenger et al., 2018; Sedlak et al., 2010).

The interactions identified also support the increasing awareness of cumulative risk factors that place a child at risk for CSA and sexual revictimization during childhood and adolescence (e.g., Pittenger et al., 2018). The interactions between familial substance abuse and domestic violence with so many other factors related to the child's risk for CSA suggests that it is a primary area of potential intervention. While caregivers may believe that their own substance abuse is not impacting their child's healthy development in any way, the research suggests otherwise; for example, Putnam (2003) identified parental dysfunction as a risk factor for CSA and Dube and colleagues (2001) found that children who grew up with parental alcohol abuse were 2 to 13 times more likely to experience adverse childhood experiences. Similarly, there is a common myth that a perpetrator of domestic violence would only perpetrate against adults and the children are not affected, but research has consistently demonstrated that there is an overlap between child maltreatment and interpersonal violence (e.g., Edleson, 1999). Kellogg and Menard (2003) interviewed children who were referred for sexual abuse and found that 58% of the sexual abuse offenders living in the child's home had also physically abused their adult partner. It is crucial to recognize that children living in families with parental substance abuse and/or domestic violence are at higher risk for CSA and re-referrals for CSA compared to children without these familial and environmental factors.

From a prevention and identification standpoint, the key points to remember are that girls, younger children, children with a mental health disorder and therapy involvement at their initial referral, familial substance abuse and/or domestic violence, and children living in areas with fewer resources are most at-risk for returning to the CAC with subsequent sexual abuse referrals regardless of the outcome of the initial referral. Each variable continues to be useful at predicting that the child will return with another referral even after accounting for all of the other variables in the model. Therefore, CACs and other public service entities (e.g., law enforcement, Child Protective Services employees) need to collect this information and monitor as closely as possible. Interventions that empower caregivers to access resources and support for any substance abuse or domestic violence may indirectly help children from experiencing further trauma.

Related to risk for returning with subsequent referrals, the factors related to the child's disclosure or presentation to the CAC with corroborating evidence included: older age, female gender, mental health disorder, engagement in therapeutic services, nonfamilial perpetrator relationship, and a family history of substance abuse and/or domestic violence. Although it very well may be the case in many situations that a child does not disclose because they have not experienced any abuse (true negative), there is always the possibility that some of the children who are not disclosing are not doing so because they need additional time to feel comfortable with the interviewer, they are afraid of consequences of disclosure, or their young age makes them impressionable to coaching and a lack of understanding of the abuse itself. Given the extent of the research on delayed disclosures that indicates that a large number of children who were sexually

abused do not disclose until adulthood (Alaggia et al., 2019), finding forensically-sound ways in which to encourage children to disclose if they have experienced abuse is an important step. Extended forensic interviews, where children return to the CAC for multiple sessions (all under one referral), is one promising technique that could potentially allow children to build enough rapport with their interviewer to feel comfortable telling (e.g., Cronch et al., 2006). Referring the child to a therapist is another option if there are significant concerns for abuse but not enough evidence to proceed and the child has not disclosed. Given that involvement with therapy at the initial referral is a predictor of disclosing abuse, it may be that having a strong relationship with a safe and trusted non-familial adult provide the child with enough empowerment to discuss any experience of sexual abuse.

Group Membership Predictors

After developing a strong understanding of the variables related to disclosing and returning, the second primary aim in the present study was to explore the ability to predict whether a child would disclose abuse or present with corroborating evidence at the initial referral and whether that child would return with a subsequent CAC referral for sexual abuse at a later date. If children who are at the highest risk and in most need of support are able to be identified at their initial referral, there is increased opportunity to intervene and potentially decrease their risk for sexual abuse in the future. Based on prior relationships discussed in detail above, age, gender, mental health diagnosis status, perpetrator relationship, therapeutic services engagement, chaotic family factors, and median neighborhood household income were included in the multivariate model and all contributed significantly as predictors.

Discriminant function analysis of the four pre-determined groups (e.g., single referral with disclosure/evidence, single referral without disclosure/evidence, multiple referrals with multiple disclosures/evidence, and multiple referrals without disclosure/evidence) identified two significant functions that can differentiate between the groups. The model was most successful at correctly classifying the singly-referred children who disclose (76.4% correct) and the singly-referred children who do not disclose (50.9% correct). Likely due to sample size differences across the groups, the model had more difficulty differentiating between the multiply-referred children. However, it is useful information to be aware of the findings that singly-referred children who disclosed or had evidence were more likely to be older, female, and to have a nonfamilial perpetrator. Children who were singly-referred but who did not disclose or have evidence tended to be younger children, boys, and those with a familial perpetrator. When compared to multiply-referred youth, singly-referred youth overall tended to have a higher proportion of boys, to not have a mental health diagnosis or therapy involvement, to live in an area with a higher median income, and to not have familial history of substance abuse or domestic violence. By contrast, the model found that multiply referred children who disclosed CSA or had evidence at more than one referral were significantly more likely to be female, have a mental health diagnosis and involvement in therapy, familial substance abuse or domestic violence, and to live in an area with fewer financial resources. Similarly, multiply referred children who did not disclose or have evidence at any referral tended to have more of the environmental risk factors but tended to have more male youth and to have a familial perpetrator.

The ability to place children into categories based on risk for returning to the CAC for additional CSA referrals and disclosing or presenting with evidence adds to the research literature and also provides important information to those whose mission is to identify and protect children at highest risk for abuse. By gaining a better understanding of the person-specific, microsystem, and exosystem factors that place a child at risk of returning repeatedly to the CAC with subsequent disclosures of victimization, there is a heightened ability to develop interventions and public policy in such a way to prevent future youth from experiencing similar adverse childhood experiences. Research has been clear that there is a cumulative risk for experiencing CSA and an initial incident places a child at increased risk for revictimization. An important protective factor is living in a familial environment without substance abuse or domestic violence and with adequate resources. Caregivers serve an essential role; they need to believe the child's disclosure of abuse and help the child get appropriate services (e.g., report the disclosure to the appropriate authorities, bring the child to the CAC, and if indicated, involve the entire non-offending family in short-term treatment to learn more about CSA and how to support each other and the victim. Sexual abuse does not only impact the child, and the child is not only influenced by the experience of sexual abuse. There are broader factors at play that contribute to a child's well-being and functioning. Thus, it is in the best interest of all children to consider their risk for CSA and for returning with subsequent referrals within the bioecological model because it best captures the breadth of contributing factors.

Modifiable and Non-Modifiable Factors

It is important to recognize variables that can be modified versus those that are less easily changed, especially when the focus is on intervention. In the current project, potentially modifiable variables include the child's mental health and well-being, the presence of non-caregiving adults in the home, substance abuse and domestic violence within the family, the child's engagement with mental health services, median neighborhood household income, and the educational attainment level of the adults in the child's neighborhood. Non-modifiable factors are those which present with the child and they include age, gender, ethnicity, and the child's relationship to the perpetrator. To best target and reduce the risk of returning with a subsequent sexual abuse referral, resources need to be directed toward the modifiable factors in children's lives.

Limitations and Strengths

There are several limitations to consider regarding the present study, particularly involving the use of archival data. Although data were collected on 4,971 youth who were referred to the CAC for sexual abuse concerns between 2002 and 2013, only 2,038 youth had complete data for all of the variables of interest. Therefore, although the sample size used for all multivariate analyses was quite large, it was unfortunately only a portion of the total sample size. There were various reasons for the presence of missing data, such as changes in forms over the years that removed or added questions to ask the child's caregiver and situations where the questions were not asked due to time constraints, lack of information provided by caregivers presenting with the child, and other factors. It is possible that the caregiver's willingness to provide environmental history is itself an important factor. Of note, family history of substance abuse and

domestic violence were the primary reason for the smaller sample size, but these factors were included in analyses due to their important contributions on all levels. Consistent with prior research (Pittenger et al., 2018), these data were suspected to not be missing at random and imputation methods were not utilized to account for the missing data in statistical analyses. List-wise deletion was decided to be the most conservative way of approaching the situation due to the inability to account for the lack of randomization.

A second limitation of the archival data was that the findings are based primarily on self-report data collected from child's caregiver who brought him or her to the CAC. Caregivers who were too emotionally distraught may not have been asked the family history questions during the initial visit (with the intention by staff to ask them at a later time), without successful follow-ups to contact the family. Particularly at a moment in time when a family was coming into contact with law enforcement, CAC family advocates, and discussing a potential disclosure of abuse that may have had legal ramifications in addition to family-specific consequences, caregivers may not have been willing to share accurate information about sensitive topics such as substance abuse and domestic violence. Depending on the broader context of the referral and the child's situation, caregivers may have associated the CAC with Child Protective Services and may have been concerned that providing information of the family history (e.g., child witnessing domestic violence) could lead to their child being removed from their care. There have been circumstances that result in Child Protective Services actually removing custody of the children while at the CAC if the child's safety is deemed to be in jeopardy, so this concern reflected a reality for some families. A related concern is that the study was unable to accurately identify children within the same family who presented to the

CAC. If several children within a family were identified as at-risk for CSA and referred to the CAC but the caregiver did not provide information on family factors for any of the children, it systematically increased the number of youth without complete data.

A third limitation to note (and the reason the current study discusses number of CSA referrals and disclosure during the forensic interview rather than specifically calling it revictimization) relates to the fact that we cannot determine whether the child had experienced abuse but did not disclose it during the forensic interview. Similarly, it is very possible that some of the children who were identified as at risk for CSA and who did not disclose were telling the truth and had not experienced any abuse. Based on the information available in the data, the most accurate way to describe the groups of children is in terms of the number of times they were referred to the CAC within the time frame of the study and the number of interviews in which they told a forensic interviewer that they had been sexually abused.

Another limitation which was discussed above in greater detail was that youth who moved out of the catchment area of the CAC and youth who were revictimized but who did not report it or who were not identified as at risk were lost to follow-up due to the constraints of the current project. Children who were revictimized may not have disclosed the abuse because they may have not wanted to go through the process of reporting it again or they may have disclosed to another youth instead of to an adult who would report it to the appropriate authorities. Also, youth who had aged out of the CAC by the time of an additional disclosure (even if the subsequent sexual abuse occurred during childhood) would have been referred elsewhere (e.g., law enforcement directly) and would not be included in the current sample. Given the number of youth who wait to

disclose until adulthood (according to retrospective studies of adults), it is feasible to consider that the re-referral rates in the current study are lower than they would have been otherwise.

A final limitation to highlight was the lack of ethnic diversity in the sample and the need to define ethnicity as "European-American" or "Minority" ethnic background. Although the population demographics of the research location are predominately European American, the percentage of youth with an ethnic minority background who presented to the CAC was greater than the ethnic minority percentage in the general population of the area. The extremely small sample sizes that led to a need to combine ethnic minority groups together under one category prevented a further understanding of ethnic differences and how they relate to disclosure and re-referrals. It likely contributed to larger within-group differences than between-group differences. Future research should be considered in other areas of the United States that have more ethnic heterogeneity. Before generalizing these results across the nation, it will be important to remember the predominately European-American ethnic background for the majority of the youth involved in the study.

Despite the limitations, the project had several important areas of strengths, both methodologically and content-related. The large sample size available for multivariate analyses had more than 2,000 youth and the overall database had almost 5,000 youth, which included both girls and boys referred for sexual abuse after they disclosed abuse to another person or were identified in other ways as at-risk for having been sexually abused. The prospective nature of the project where the youth were followed within the window of 2002 and 2013 for initial referrals for CSA through 2016 for subsequent

referrals. Rather than asking adults to retrospectively report on their childhood experiences or using cross-sectional designs, the current study allowed long-term follow-ups of the same youth. And, despite the challenges mentioned above with low ethnic diversity, the sample is reflective of children referred to CACs in the Midwestern United States. There is definite room for growth in the research area, but the study expands well upon previous research (Pittenger et al., 2018) to address the gaps in the literature and it further elucidates the factors at play in a child's disclosure during a forensic interview and risk for receiving a subsequent sexual abuse referral to the CAC. Results can be used to identify the children at their initial visit who are at the highest risk for returning to the CAC to allow for interventions at the child, family, and systems-levels that may eventually be able to mitigate the risk.

Conclusions and Recommendations

In conclusion, the current study provides additional support for Bronfenbrenner's bioecological model as an ideal framework to approach furthering the research literature's understanding of risk for sexual abuse in childhood. As demonstrated by previous research and the current project's findings, a variety of person-specific, microsystem, and exosystem factors are at play when a child experiences sexual abuse. Employing the bioecological model on a consistent basis will help shape and guide the development of appropriate interventions for preventing and responding to CSA. It will also unify the research literature and allow for more programmatic research on CSA (Messman-Moore & Long, 2003). Recognizing the myriad factors outside of the youth's control that increase the risk of CSA is an important step to addressing the victim blaming that some youth (particularly adolescents) experience (Grauerholz, 2000;

Theimer & Hansen, 2017). Risk for CSA does not emanate uniquely from the developing child, but from specific personal and environmental factors that together create a situation in which a perpetrator can access and abuse the child.

While nation-wide incidence rates have fallen in recent decades (Finkelhor et al., 2014), it continues to be a concern across the world. A confounding factor for the decreased incidence is that youth wait to disclose the experience of sexual abuse or never disclose the abuse at all. For example, retrospective self-report studies indicate that 1 in 8 people have experienced CSA, while official reports from police and child protective services indicate a rate of only 1 in 250 children (Alaggia et al., 2019; Jillian, Cotter, & Perreault, 2014; Statistics Canada, 2013). While there have been great improvements over time, CSA prevention and identification (of both initial and revictimization experiences) continue to be primary areas in need of attention in order to protect and empower children across the globe.

CACs are leading the movement to improve child abuse response and prevention through service, education, and leadership. The current findings are likely representative of children throughout the Midwestern region who were referred to the local CAC after either disclosing abuse or being identified as at-risk for having experienced abuse (e.g., a sibling disclosed abuse and both lived with the offender, the child displayed inappropriate sexual behaviors, or the offender confessed to abusing the child). On a smaller level, future research directions could entail conducting similar prospective studies at CACs across the United States and in areas where there is increased ethnic diversity. While the current project is highly generalizable to CACs within the Midwestern United States based on population make-up and the inclusivity of the sample (all children referred for

CSA were included), the findings may not be as applicable in other parts of the country where there may be other factors with greater weight. On a grander exosystems level, CACs who are accredited by the National Children's Advocacy Center could unite records such that children could be followed prospectively regardless of where they live or move. There are numerous challenges that are systems-based, but improved communication between CACs and law enforcement across state lines could provide a more accurate picture of CSA revictimization.

From a preventative perspective, interventions are innumerable and already underway across the country. Among many examples of areas in which to intervene preventatively, children need to be educated about "safe" and "unsafe" touch from an early age. They need to know that they are in control of their bodies and that no one has a right to touch them in a way that makes them feel uncomfortable. Forcing a child to hug or kiss an unfamiliar adult (who happens to be an extended family member or other close family friend to the parent) sends conflicting messages to children about their bodily autonomy. Caregivers and educational staff need to be prepared to have discussions with children about these subjects from an early age and at a developmentally-appropriate level so that children are able to navigate these social situations. Schools are ideal settings for teaching children about sexual abuse prevention because children spend significant amount of their lives interacting with school personnel and the prevention efforts would reach the majority of children across the nation. Stop Child Abuse and Neglect (SCAN) is one such program (affiliated with CACs) where staff members and trained volunteers teach children about personal safety (e.g., inappropriate touching, internet safety; NCAC, 2019). Incorporating screenings and increasing the

awareness of the evidence-based risk factors for CSA and revictimization could improve the identification rate of victims and close the gap between the number of reported CSA victims and the retrospective prevalence rates.

From a clinical standpoint, there are a number of ways to explain how a child's involvement in mental health services and the child's own psychopathology may increase the child's chance of returning to the CAC. Future research that could delve further into the relationship and better understand the mechanics of the situation would be greatly beneficial. As discussed above, there is likely an aspect of a surveillance effect where children with therapists may be more likely to either tell if they experience future abuse or to be identified as at-risk due to behaviors or other situational factors. It very well could be that these children are returning to the CAC because of their comfort with the therapist and their willingness to tell when abuse occurs again. Therapists need to be trained and to be familiar with how to respond to a disclosure of CSA (e.g., to the child, to the parents if appropriate, and to the authorities). Without adequate training and ongoing support, it is a situation in which a child's partial disclosure to a trusted adult may be overlooked or misunderstood. If the therapist does not react with a minimal facts interview and instead asks leading questions, there is a chance that the disclosure may be spoiled from a legal perspective. Programmatic research investigating therapist's own comfort levels, knowledge of sexual abuse, and areas in which they need additional support is necessary. Similarly, CACs should have mental health professionals as part of the organization to best serve children and families for both short-term, crisis-support and longer-term follow-up care.

The goal of the current project was to identify the children who are at the highest risk for experiencing sexual abuse and returning to the CAC for additional referrals regardless of their disclosure status at the initial CAC visit. Evidence indicated that there is not one infallible predictor, but rather several factors that relate to the child, the child's immediate environment, and the broader context within which the child is developing. By asking the difficult questions and by providing interventions to the families in most need (e.g., substance abuse treatment for family members, resources to stop domestic violence), the risk for subsequent victimization and referrals to the CAC may be mitigated. Widespread prevention efforts to increase CSA awareness and evidence-based intervention services for all families in need are fundamental to protect youth nationally and across the globe.

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APPENDIX A

Child Advocacy Center

CHILD ADVOCACY CENTER
CASE RECORD

CAC CASE NUMBER: - -

ADVOCATE
☐ ALDAG ☐ CASSIDY ☐ KAVAN

MEDICAL PROVIDER
☐ BLEICHER ☐ DAVID ☐ LOCH

DATE	TIME

INTERVIEWER
☐CARTWRIGHT ☐DARLING ☐SNELLER-HAMILTON
☐COCKLE ☐FOSTER ☐BARRY
☐BRYANT ☐OTHER

CHILD INFORMATION

Child's Name	Date of Birth	Age	☐ Female ☐ Male
Address			
City	**County**	**State**	**Zip**
Home Phone	**NOP Work Phone**	**Cell Phone** ☐NOP ☐Child	

Who will accompany the child to the CAC? ☐ DO NOT CONTACT PARENT/CAREGIVER

Race/Ethnicity
☐ White (Includes Middle Eastern)
☐ Hispanic/Latino
☐ Black/African American
☐ Native American/Alaskan Native
☐ Asian
☐ Native Hawaiian/Pacific Islander

Language
☐ English
☐ Spanish
☐ Vietnamese
☐ Arabic
☐ Nuer
☐ Other

Disability
☐ None ☐ Speech Impaired ☐ Wheelchair Bound
☐ ADHD ☐ Hearing Impaired ☐ Developmentally Delayed
☐ Learning Disabled ☐ Visually Impaired ☐ Mental Health
☐ Autism ☐ Seizure Disorder ☐ Other:
☐ Asperger's ☐ Cerebral Palsy

Type of Abuse
☐ Sexual
☐ Physical
☐ Domestic Violence
☐ Neglect
☐ Homicide
☐ Drug Endangered
☐ Kidnap
☐ Other

Services Requested
☐ Forensic Interview
☐ Extended Forensic Interview
☐ Medical Evaluation
☐ ChildGuard
☐ Medical Consultation
☐ Hospital Advocacy
☐ Child Advocate Only

Date of Referral to CAC	Referral Source (Agency/Person)	Telephone

Date of Referral to Investigative Agency:

Law Enforcement	Phone	CPS Worker	Phone
☐Law Enforcement Not Involved		☐ CPS Not Involved	

SUMMARY OF ALLEGED ABUSE

☐ Perpetrator Unknown

County of Jurisdiction:

1. Alleged Perpetrator	**Date of Birth**	**Age**	☐ Male ☐ Female

Race ☐ White ☐ Hispanic/Latino ☐ Black ☐ Native American ☐ Asian ☐ Other

Relationship to Child

☐ Currently in the home ☐ Does not live in home with child
☐ Temporarily out of home ☐ In custody

2. Alleged Perpetrator	**Date of Birth**	**Age**	☐ Male ☐ Female

Race ☐ White ☐ Hispanic/Latino ☐ Black ☐ Native American ☐ Asian ☐ Other

Relationship to Child

☐ Currently in the home ☐ Does not live in home with child
☐ Temporarily out of home ☐ In custody

3. Alleged Perpetrator	**Date of Birth**	**Age**	☐ Male ☐ Female

Race ☐ White ☐ Hispanic/Latino ☐ Black ☐ Native American ☐ Asian ☐ Other

Relationship to Child

☐ Currently in the home ☐ Does not live in home with child
☐ Temporarily out of home ☐ In custody

OUTSIDE MEDICAL EXAM

Examiner	**Location**	**Date**

Findings

☐ No physical findings
☐ Physical findings present and consistent with abuse
☐ Physical findings present but not related to abuse
☐ Physical findings present but inconclusive regarding abuse

BACKGROUND CHECKS

Check child's CAC history ☐ Yes ☐ No When?	**Check child's history on NDEN**	**Check NOP's history on NDEN**
Check AP's CAC history	**Check AP's history on NDEN**	**Check Sex Offender Registry**

CHILD'S TEAM

County Attorney | Phone

Child's School
St. Mary's

Child's Primary Physician

Child's Therapist

☐ Child not involved in therapy at time of referral

CUSTODY

Who has legal custody of the child?

☐ Mother/Father (married) ☐ Joint Custody (divorce) ☐ State Ward
☐ Mother Only ☐ Father Only ☐ Other

Child's Current Living Arrangement

☐ In parents' or primary caregiver's home ☐ In residential/institutional treatment
☐ In foster/adoptive home ☐ In group home
☐ Residing with other relatives ☐ Other

CAREGIVER INFORMATION

Name of Caregiver | **Date of Birth** | **Age** | ☐ Male ☐ Female

Race: ☐White ☐ Hispanic/Latino ☐Black ☐ Native American ☐Asian

Place of Employment | **Can we call you at work?** ☐ Yes ☐ No

Relationship to Child

☐ Biological Parent ☐ Step Parent ☐ Foster Parent
☐ Adopted Parent ☐ Caregiver's Boyfriend/Girlfriend ☐ Other Relative

Name of Caregiver | **Date of Birth** | **Age** | ☐ Male ☐ Female

Race: ☐White ☐ Hispanic/Latino ☐Black ☐ Native American ☐Asian

Place of Employment | **Can we call you at work?** ☐ Yes ☐ No

Relationship to Child

☐ Biological Parent ☐ Step Parent ☐ Foster Parent
☐ Adopted Parent ☐ Caregiver's Boyfriend/Girlfriend ☐ Other Relative

BIOLOGICAL PARENT(S) – IF NOT LISTED ABOVE

Mother | **Date of Birth** | **Age** | ☐ Male ☐ Female

Race: ☐White ☐ Hispanic/Latino ☐Black ☐ Native American ☐Asian

Address | **City** | **State**

Father | **Date of Birth** | **Age** | ☐ Male ☐ Female

Race: ☐White ☐ Hispanic/Latino ☐Black ☐ Native American ☐Asian

Address | **City** | **State**

SIBLINGS					
Name:	**DOB/Age:**	☐White ☐Hispanic/Latino ☐Black ☐Native American ☐Asian	☐Male ☐Female	☐ In home ☐ Out of home	☐ Whole ☐ Half ☐ Step ☐ Foster ☐ Adoptive
Name:	**DOB/Age:**	☐White ☐Hispanic/Latino ☐Black ☐Native American ☐Asian	☐Male ☐Female	☐ In home ☐ Out of home	☐ Whole ☐ Half ☐ Step ☐ Foster ☐ Adoptive
Name:	**DOB/Age:**	☐White ☐Hispanic/Latino ☐Black ☐Native American ☐Asian	☐Male ☐Female	☐ In home ☐ Out of home	☐ Whole ☐ Half ☐ Step ☐ Foster ☐ Adoptive
Name:	**DOB/Age:**	☐White ☐Hispanic/Latino ☐Black ☐Native American ☐Asian	☐Male ☐Female	☐ In home ☐ Out of home	☐ Whole ☐ Half ☐ Step ☐ Foster ☐ Adoptive
Name:	**DOB/Age:**	☐White ☐Hispanic/Latino ☐Black ☐Native American ☐Asian	☐Male ☐Female	☐ In home ☐ Out of home	☐ Whole ☐ Half ☐ Step ☐ Foster ☐ Adoptive

WHO ELSE IS LIVING IN THE HOME WITH THE CHILD			
Name	**Relationship to Child**	**DOB/Age:**	☐ Male ☐ Female
Name	**Relationship to Child**	**DOB/Age:**	☐ Male ☐ Female

FAMILY HISTORY

ALCOHOL AND DRUGS

Do you or anyone in your family have a history of drug or alcohol abuse? ☐YES ☐NO ☐UNKNOWN

Notes:

DOMESTIC VIOLENCE

I realize in order for you to keep your child safe, you need to be safe. Many of our parents are in unsafe situations because of domestic violence in the home. Do you feel safe at home? Has your child ever witnessed violence in the home? ☐YES ☐NO ☐UNKNOWN

Notes:

CHILDHOOD ABUSE

Has anyone in your family experienced sexual abuse? Have you experienced sexual abuse? Who was the alleged perpetrator? ☐YES ☐NO ☐UNKNOWN

Notes:

Name of Caregiver Providing Information

APPENDIX B

Child Advocacy Center

FORENSIC INTERVIEW SUMMARY

This report is a summary of a recorded interview of a child victim or witness alleging, explaining, denying or describing an act of sexual assault or child abuse as part of an investigation. For the child's complete statement, please refer to the DVD recording provided to law enforcement.

☐Aldag ☐Andrews ☐Cassidy ☐Kavan

Child's Name	Date of Birth	Age

Alleged Perpetrator ☐ Unknown	Age

Relationship to Child

☐ Biological parent
☐ Step parent
☐ Foster parent
☐ Adoptive parent
☐ Other relative--
☐ Mother's paramour
☐ Father's paramour
☐ Sibling
☐ Child care staff
☐ Teacher, coach, youth leader
☐ Other adult known to child
☐ Unknown adult
☐ Internet relationship
☐ Other--

Date of Referral	Referral Source (Agency and Person)

Date of Interview	Start Time	Stop Time

Name of Interviewer

☐ Maja Cartwright ☐ Troy Cockle ☐ Frank Foster
☐ Braegan Darling ☐ Mike Barry ☐ Chad Bryant ☐ Other:

Interpreter Used ☐ Yes ☐ No	Name of Interpreter

Others in the Observation Room

Did the child make a disclosure of abuse prior to the forensic interview? ☐ Yes ☐ No
If YES, who did the child disclose to (check all that apply):

☐ Biological mother
☐ Biological father
☐ Step parent
☐ Sibling
☐ Foster parent
☐ Grandparent
☐ Other relative
☐ Friend
☐ School professional
☐ Mental health provider
☐ Health care provider
☐ Other
☐ Clergy
☐ Law enforcement personnel
☐ CPS Worker

Did the child disclose abuse during the forensic interview?

☐ Yes ☐ No ☐ Child refused interview ☐ Child developmentally unable to participate

STOP (NAME AND DATE ON BACK)

If the child disclosed abuse, what type of abuse did s/he report? (Check all that apply)

☐ Sexual	☐ Neglect	☐ Kidnap/Attempted Kidnap
☐ Physical	☐ Homicide	☐ Witness to Sexual/Physical Abuse
☐ Domestic Violence	☐ Drug Endangered	☐ Other

If the child disclosed SEXUAL ABUSE, what kind of sexual behavior(s) was the child exposed to? (Check all that apply)

☐ Sexual suggestive talk, hugs, kissing	☐ Oral contact (perpetrator to child's genitals)
☐ Exposure of genitals	☐ Oral contact (child to perpetrator's genitals)
☐ Pornography (magazines, video, internet)	☐ Digital or object penetration
☐ Fondling over child's clothes	☐ Ejaculation by perpetrator
☐ Fondling under child's clothes	☐ Internet solicitation
☐ Simulated intercourse over clothes	☐ Photos or video taken
☐ Attempted intercourse under the clothes	☐ Child was confined or restrained
☐ Penile penetration of vagina	☐ Child was hit or beaten
☐ Penile penetration of rectum	☐ Threats or bribes
☐ Child forced to fondle perpetrator's genitals	☐ Other

If the child disclosed PHYSICAL ABUSE, what kind of physically abusive behavior(s) was the child exposed to? (Check all that apply)

☐ Pushing or shaking	☐ Threatened with a weapon
☐ Pinching, biting causing injury	☐ Kept in restraints, locked up, held in seclusion
☐ Hit, punched, spanked, kicked causing injury	☐ Inflicted burns
☐ Hit or spanked with object causing injury	☐ Other

How often was the child abused in the current episode under investigation?

☐ Single incident	☐ More than 10 times
☐ Less than 10 times	☐ Unable to determine

When was the last incident?	Jurisdiction
☐ Unable to determine	

Where did the alleged abuse occur? (Check all that apply)

☐ Child's home	☐ School	☐ Park
☐ Offender's home (different from child)	☐ Child Care	☐ Other public setting
☐ Relative's home	☐ Vehicle	☐ Hotel/Motel
☐ Friend's home	☐ Other—	

Interview Summary Completed by	Date
Braegan Darling	

APPENDIX C

Child Advocacy Center

Report of Medical Evaluation

Date of Evaluation	**Time of Evaluation**		☐ Stacie Bleicher, M.D. ☐ Jeff David, M.D. ☐ Kirsten Loch, R.N.	
Child's Name	**Date of Birth**	**Age**	☐	Female
			☐	Male
Referring Agency				
Officer/Worker				
Name of Caregiver(s) Providing History		**Relationship to Child**		

Reason for Referral

Past Medical History

Perinatal History

Review of Systems

Current Medications

Allergies

Additional Information Provided by Caregiver(s)

Additional Information Provided by Child

Medical Evaluation						
Temp	**Pulse**	**RR**	**BP**	**Height**	**Weight**	**BMI**

HEENT

Neck

Cardiovascular

Respiratory

Abdominal

Genitourinary

Neurologic

Extremities

Skin

Impressions

Treatment/Recommendations

Lab Results

Signature of Medical Examiner	**Date of Signature**

Copies of the Medical Evaluation Report provided to:

Child Advocacy Center

Medical Exam Worksheet

Date of Exam	**Time of Exam**	☐ Stacie Bleicher, M.D. ☐ Jeff David, M.D. ☐ Kirsten Loch, R.N.
Child's Name	**Date of Birth** / **Age**	☐ Female ☐ Male
Race ☐ White (Includes Middle Eastern) ☐ Hispanic/Latino ☐ Black/African American ☐ Native American/Alaskan Native ☐ Asian ☐ Other	**Language** ☐ English ☐ Spanish ☐ Vietnamese ☐ Arabic ☐ Nuer ☐ Other	
Interpreter Used ☐ Yes ☐ No	**Name of Interpreter**	

Name of Referring Agency

Name of Officer/Worker	**Telephone**

Type of Alleged Abuse

☐ Sexual ☐ Physical ☐ Neglect ☐ Other

Alleged Perpetrator	**Date of Birth**	**Age**	☐ Male ☐ Female

Race ☐ White ☐ Hispanic/Latino ☐ Black ☐ Native American ☐ Asian ☐ Other

Relationship to Child

☐ Currently in the home ☐ Does not live in home with child
☐ Temporarily out of home ☐ In custody

Name of Caregiver(s) Providing History Today	**Telephone**

Relationship to Child

☐ Parent/Guardian Consent ☐ State Ward-HHS Consent

Date of Most Recent Alleged Event

☐ Unknown

Has child been previously examined for alleged abuse? ☐ Yes ☐ No	**If YES, date of exam?**
	Name of Examiner

Summary of Current Allegation (Include Source)

Past Medical History/Review of Systems

Name of Child's Primary Physician	Name of Pharmacy

☒ Indicates Positive History ☐ HEENT ☐ Cardiovascular ☐ Respiratory ☐ Abdominal ☐ Skin ☐ Neurologic	☐ Genitourinary ☐ Pain ☐ Itching ☐ Discharge ☐ Bleeding	☐ Rectal ☐ Pain ☐ Bleeding ☐ Constipation

Details from positive above:

Any recent anal-genital injuries, surgeries, diagnostic procedures or medical treatment? ☐ Yes ☐ No

Any other pertinent medical conditions that may affect the interpretations of findings? ☐ Yes ☐ No

Hospitalizations/Surgeries	Significant Illness/Injury	Growth and Development
☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ WNL ☐ ABN ☐ Unknown
Allergies	**Immunizations**	**Medications**
☐ Yes ☐ No ☐ Unknown	☐ UTD ☐ NUTD ☐ Unknown	☐ Yes ☐ No ☐ Unknown

Perinatal History:

History of Physical Abuse	Exposure to Domestic Violence	History of Sexual Abuse
☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown	☐ Yes ☐ No ☐ Unknown

Other Intercourse (adolescents)	☐ Yes ☐ No	Menstrual Periods
If yes, anal within past 5 days?	When	If Yes, age of menarche:
If yes, vaginal within past 5 days?	When	Last Menstrual Period:
If yes, did ejaculation occur?	Where	Tampons? ☐ Yes ☐ No
If yes, was a condom used?	☐ Yes ☐ No	

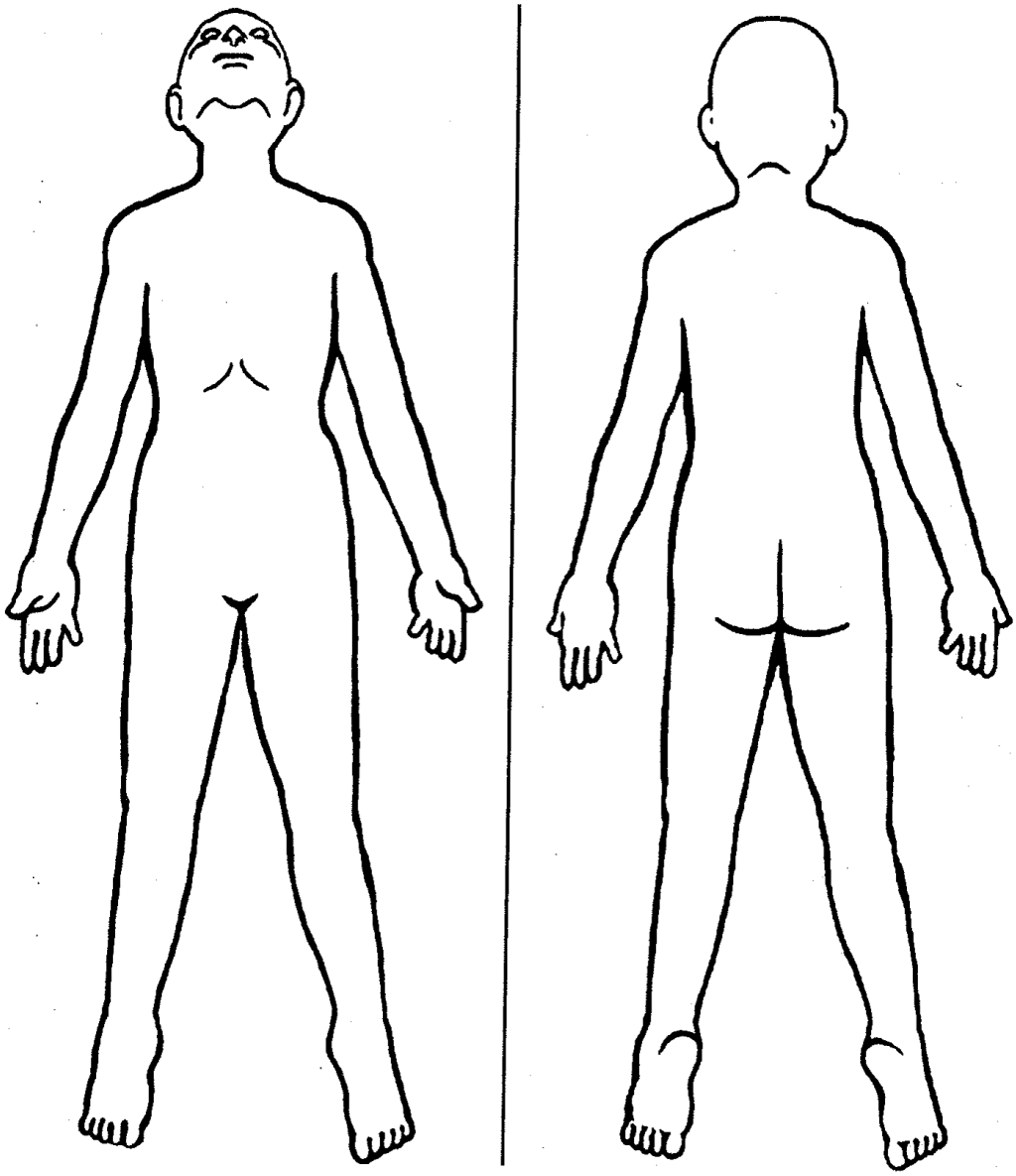
General Physical Exam

Temp	BP/P/RR	Height	Weight	BMI

Female Tanner Stage ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

	WNL	ABN	Not Examined	See Body Diagram	Describe Abnormal Findings
Appearance	☐	☐			
Affect/Behavior	☐	☐			
Skin	☐	☐	☐	☐	
Head	☐	☐	☐	☐	
Eyes	☐	☐	☐	☐	
Ears	☐	☐	☐	☐	
Nose	☐	☐	☐	☐	
Mouth/Pharynx	☐	☐	☐	☐	
Teeth	☐	☐	☐	☐	
Neck	☐	☐	☐	☐	
Trunk	☐	☐	☐	☐	
Lungs	☐	☐	☐	☐	
Chest	☐	☐	☐	☐	
Heart	☐	☐	☐	☐	
Abdomen	☐	☐	☐	☐	
Back	☐	☐	☐	☐	
Buttocks	☐	☐	☐	☐	
Extremities	☐	☐	☐	☐	
Neurological	☐	☐	☐	☐	
Genitourinary	☐	☐	☐	☐	
Anus	☐	☐	☐	☐	

Physical Abuse Cases – Record the Acts Described by the Child to the Medical Examiner Here



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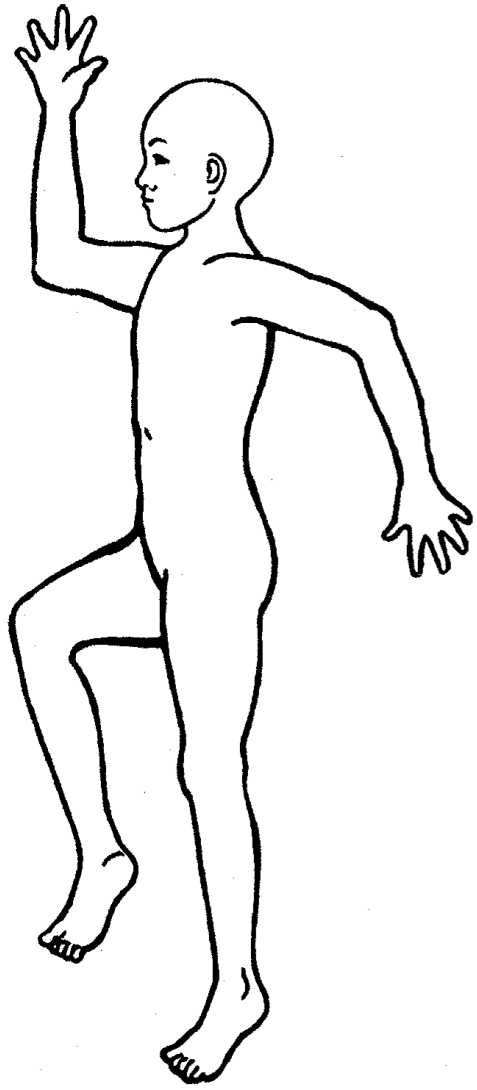

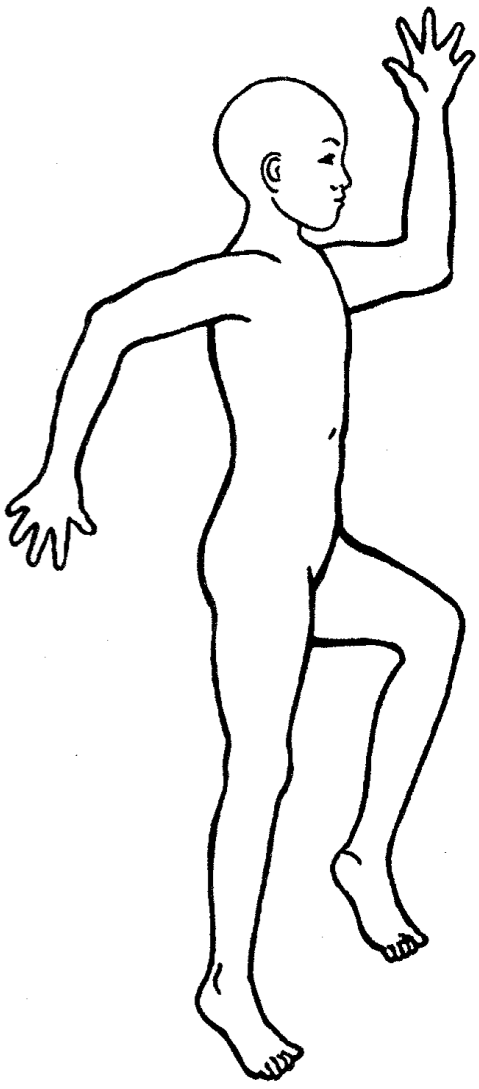

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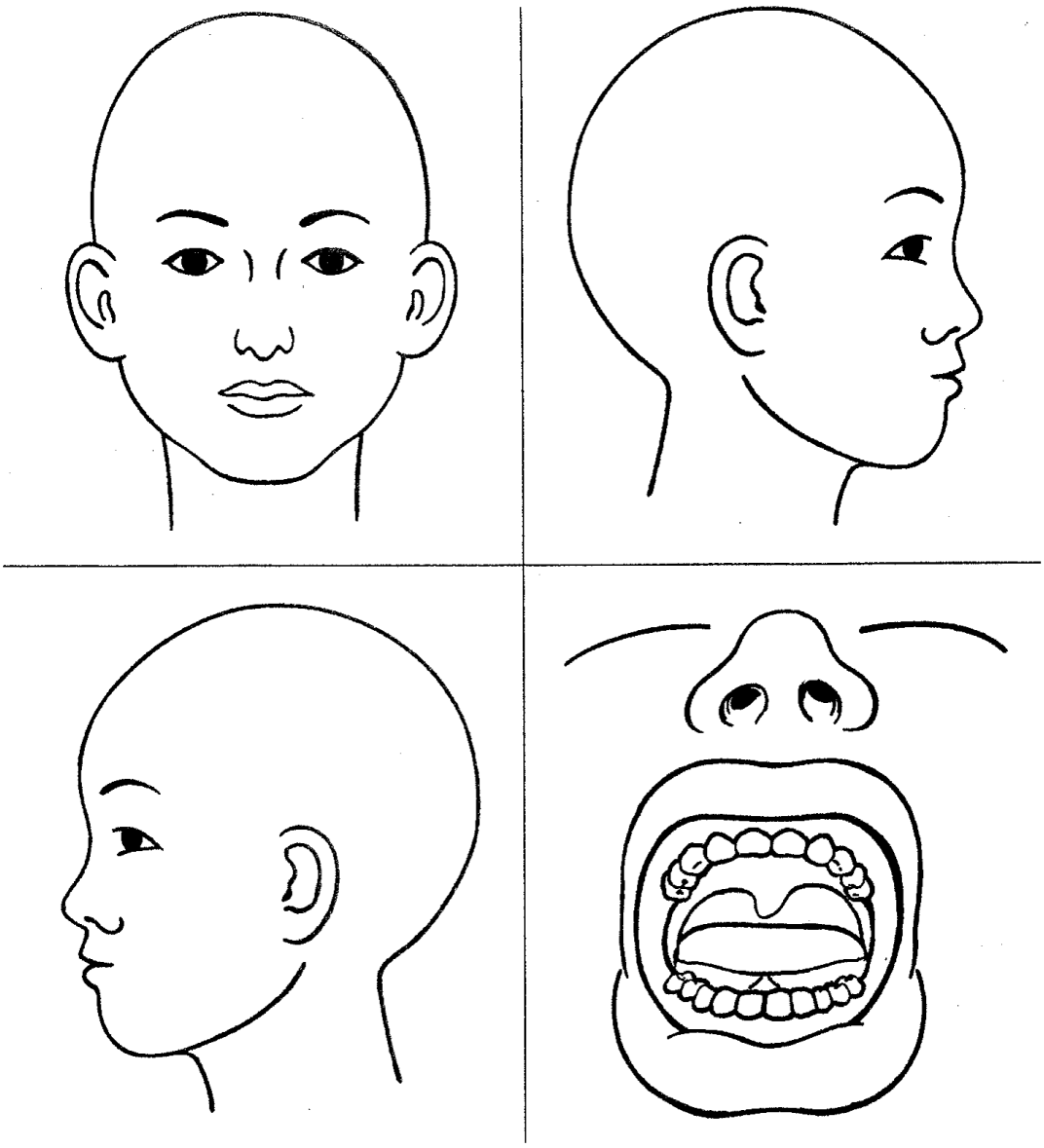


Sexual Abuse Cases – Record the Acts Described by the Child to Medical Examiner Here

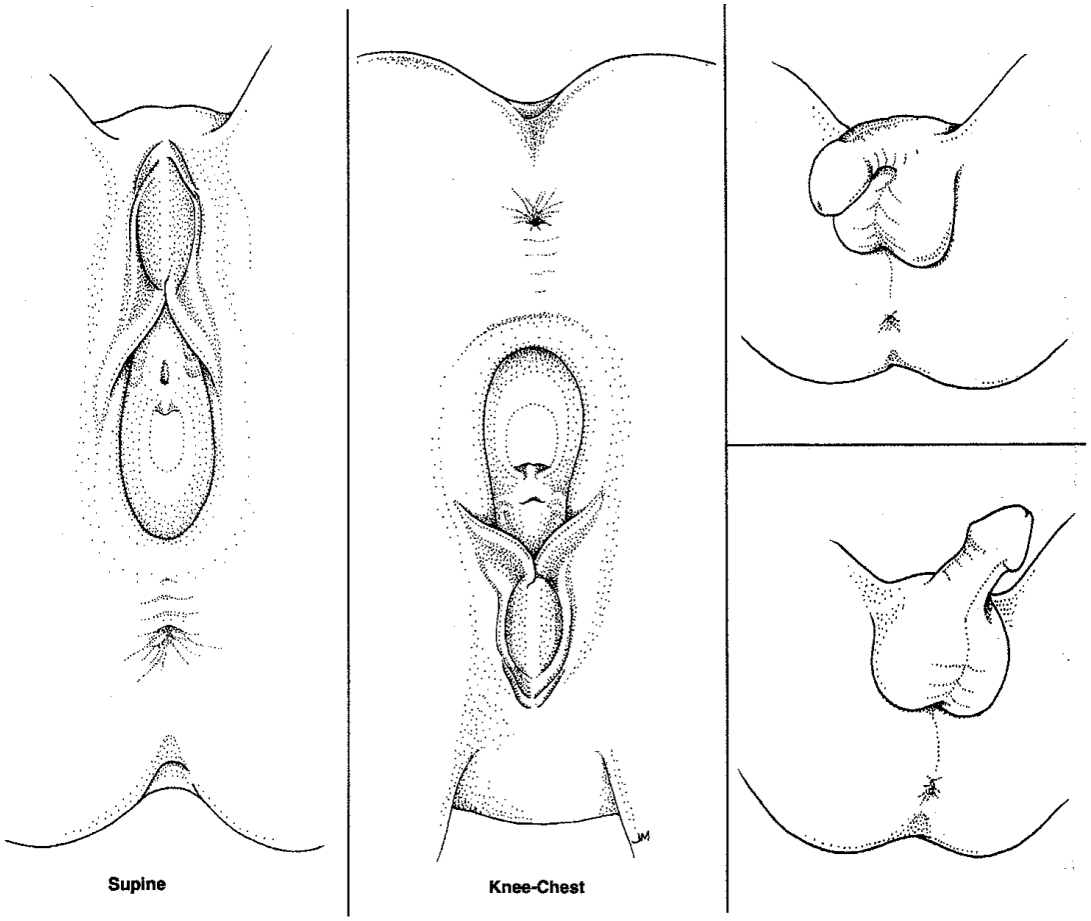
☐ History Provided by Child ☐ Child Too Young to be Interviewed ☐ Child Unwilling/Unable to Provide History at This Time

	YES	NO	ATTEMPTED	UNSURE	N/A	Description Provided by Child
Genital/Vaginal Contact/Penetration by:						
Penis	☐	☐	☐	☐	☐	
Finger	☐	☐	☐	☐	☐	
Object (describe)	☐	☐	☐	☐	☐	
Associated pain?	☐	☐	☐	☐	☐	
Associated bleeding?	☐	☐	☐	☐	☐	
Anal contact/penetration by:						
Penis	☐	☐	☐	☐	☐	
Finger	☐	☐	☐	☐	☐	
Object (describe)	☐	☐	☐	☐	☐	
Associated pain?	☐	☐	☐	☐	☐	
Associated bleeding?	☐	☐	☐	☐	☐	
Oral copulation of genitals:						
Of Child by Perp	☐	☐	☐	☐	☐	
Of Perp by Child	☐	☐	☐	☐	☐	
Oral copulation of anus:						
Of Child by Perp	☐	☐	☐	☐	☐	
Of Perp by Child	☐	☐	☐	☐	☐	
Anal/genital fondling						
Of Child by Perp	☐	☐	☐	☐	☐	
Of Perp by Child	☐	☐	☐	☐	☐	
Did Ejaculation Occur?	☐	☐		☐	☐	
If Yes, note location:						
☐ Mouth ☐ Vagina ☐ Anus/Rectum ☐ Body surface						
☐ On bedding ☐ On Clothing ☐ Other						

	YES	NO	N/A
Contraceptive or lubricant products?	☐	☐	☐
If yes, note type: ☐ Foam ☐ Jelly ☐ Lubricant ☐ Condom			
	YES	**NO**	**N/A**
Were force or threats used?	☐	☐	☐
Were weapons used?	☐	☐	☐
Were pictures/videotapes taken or shown?	☐	☐	☐
Were drugs or alcohol used?	☐	☐	☐
Loss of memory?	☐	☐	☐
Lapse of consciousness?	☐	☐	☐
Vomited after act(s)?	☐	☐	☐
Behavioral changes?	☐	☐	☐

Additional Notes

Who else was present in the room when the child provided the description of abuse?


Supine
Knee-Chest

Anal Genital Findings

Exam Method ☐ Direct visualization ☐ Colposcope ☐ Other magnification

General Female/Male	WNL	ABN	Describe
Inguinal adenopathy	☐	☐	
Perineum	☐	☐	
Genital Tanner Stage	☐1	☐2 ☐3 ☐4 ☐5	

Female Genitalia

Exam position/methods	Separation	Traction	Knee chest
Supine	☐	☐	☐
Prone	☐	☐	☐

☐ Saline/Water ☐ Moistened Swab ☐ Catheter ☐ Other

	WNL	ABN	Describe
Labia majora	☐	☐	
Labia minora	☐	☐	
Clitoral hood	☐	☐	
Vestibule	☐	☐	
Hymen ☐ Supine ☐ Prone	☐	☐	

Record morphology

☐ Annular
☐ Crescentic
☐ Imperforate
☐ Septate

	WNL	ABN	Describe
Fossa navicularis	☐	☐	
Posterior fourchette	☐	☐	
Vagina (Pubertal)	☐	☐	
Cervix (Pubertal)	☐	☐	

	YES	NO
Discharge	☐	☐

Male Genitalia

	WNL	ABN	Describe
Penis	☐	☐	
☐Circumcised ☐Uncircumcised			
Foreskin	☐	☐	
Glans Penis	☐	☐	
Penile Shaft	☐	☐	
Urethral meatus	☐	☐	
Scrotum	☐	☐	
Testes	☐	☐	

	YES	NO	Describe
Discharge	☐	☐	

Female/Male Anus and Rectum

Exam positions/methods	Observation	Observation with traction
Supine	☐	☐
Supine knee chest	☐	☐
Prone knee chest	☐	☐
Lateral recumbent	☐	☐

☐Moistened swab ☐Toluidine blue dye ☐Anoscopy ☐Other

	WNL	ABN	Describe
Buttocks	☐	☐	
Perianal skin	☐	☐	
Anal verge/folds	☐	☐	
Rectum	☐	☐	

	YES	NO	Undetermined
Anal dilation	☐	☐	☐
Stool present	☐	☐	☐

Findings and Interpretation

Anal/Genital Findings

☐ Normal anal/genital exam
☐ Abnormal anal/genital exam
☐ Indeterminate anal/genital exam

Assessment of Anal/Genital Findings

☐ Consistent with history
☐ Inconsistent with history
☐ Limited/insufficient history

Interpretation of Anal/Genital Findings

☐ Normal; can neither confirm/negate sexual abuse
☐ Non-specific; may be caused by abuse or other means
☐ Sexual abuse is highly suspected
☐ Definite evidence of sexual abuse

Medical Lab Tests Performed

STD Cultures	GC	Chlamydia	Other
Oral	☐	☐	☐
Vestibular	☐	☐	☐
Vaginal	☐	☐	☐
Cervical	☐	☐	☐
Rectal	☐	☐	☐
Penile	☐	☐	☐

Serology ☐ Syphilis ☐ HIV ☐ Hepatitis

Pregnancy Test ☐ Blood ☐ Urine

Medication/Treatment Prescribed

APPENDIX D

AUTHORIZATION FOR EXCHANGE OF INFORMATION

Child's Name

❍ I understand one of the goals of the Child Advocacy Center is to reduce the number of times my child will need to be interviewed during the course of the investigation. However, this does not mean that my child will never have to talk about the abuse again. My child's case may or may not reach the court process. The fact that the interview has been recorded does not mean that my child will not have to testify in court proceedings.

❍ A trained forensic interviewer will interview my child while other CAC team members watch the interview on a television monitor. The CAC team members who may be watching the interview on the monitor include law enforcement, protection and safety, a representative from the prosecutor's office and CAC personnel.

❍ I understand my child's interview at the Child Advocacy Center is recorded on a DVD. The DVD is turned over to law enforcement. The county attorney controls who can view the DVD.

❍ I understand another goal of the Child Advocacy Center is to continue to improve the quality of interviews for child victims of abuse. In certain instances, the DVD of my child's interview may be shown to law enforcement or protection and safety workers for peer review and ongoing training.

❍ The Child Advocacy Center is an appointed member of the Child Abuse and Neglect Investigation Team and will share information gained during the forensic interview or medical evaluation of my child with law enforcement, protection and safety, as well as the county attorney's office.

I hereby authorize the Child Advocacy Center to exchange limited information about my child's case with the following agencies or individuals:

❍ Therapist

❍ Primary Physician

❍ School Personnel

❍ Private Attorney

❍ UNL-Project SAFE

❍ Lutheran Family Services

❍ Other

I understand this authorization to exchange information becomes effective when I sign this release. I further understand I may revoke this authorization to exchange information at any time. In order to do so, I need to give written notice to the Child Advocacy Center stating this intent.

Signature of Parent or Legal Guardian	**Date**

Federal law prohibits recipients of Justice Department funding from discriminating against individuals or groups either in employment or in the delivery of services or benefits, on the basis of race, color, national origin, religion, sex, or disability. If you believe you have been denied services on the basis of race, color, national origin, religion, sex, or disability, you should file a complaint with our Executive Director as soon as possible or contact the Office of Civil Rights of the U.S. Department of Justice. http://www.ojp.usdoj.gov/about/ocr/complaint.htm