

Children Receiving Services at a Community Child Advocacy Center:
A Mixed-Method Examination of Early Maladaptive Schemas and Coping Responses

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Dedication

This project is dedicated to all individuals affected by and healing from childhood maltreatment.

Abstract

Schemas are core emotional and cognitive themes regarding oneself and one's environment. Early maladaptive schemas (EMS) are themes originating from childhood and are associated with unmet emotional needs and adverse experiences, such as those that occur in caregiver-child relationships. EMS are maintained throughout life by unhelpful coping responses. However, it is unclear when children develop EMS and how the relationship between EMS and coping responses presents in children. **Objective:** The present study examined: (1) the prevalence of EMS and coping responses in children who have experienced maltreatment, (2) the relationship between EMS and coping responses, (3) how qualitative data compare to previous theoretical structures found in quantitative studies, and (4) how personal factors (e.g., age, gender) and abuse factors (e.g., frequency, type) are related to EMS and coping responses. **Participants:** Data were collected in collaboration with a child advocacy center through forensic interviews in which a child reported primary and/or secondary abuse. **Measures:** EMS were assessed using the Dusseldorf Illustrated Schema Questionnaire for Children (excluding illustrations). Coping responses were assessed using the COPE Inventory. Information about individual and abuse factors were gathered from case reports. **Procedure:** Staff at the child advocacy center completed the measures based on information obtained during forensic interviews. **Results:** All EMS were present in this sample. Excessive responsibility/standards was positively associated with self-sufficient coping and negatively associated with avoidant coping. Children of color, older children, and children who experienced multiple forms of abuse also reported higher levels of disconnection/rejection. Children who reported multiple forms of abuse also reported

higher levels of impaired autonomy/performance. **Conclusion:** Early interventions should address EMS and reinforce more helpful coping responses for children with such adverse experiences.

Keywords: early maladaptive schemas, coping, children, adolescents, childhood
maltreatment

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Children Receiving Services at a Community Child Advocacy Center: A Mixed-Method Examination of Early Maladaptive Schemas and Coping Responses

Introduction

Childhood maltreatment is a common adverse experience among children. In the United States, more than 1 in 7 children experience abuse and/or neglect each year, and in 2018, nearly 1,170 children died because of abuse or neglect (Centers for Disease Control and Prevention [CDC], 2020b). Additionally, 1 in 4 girls and 1 in 13 boys experience sexual abuse that is perpetrated by someone the child or the child's family knows 91% of the time (CDC, 2020b). Services that aim to protect, prevent, or care for children who have experienced maltreatment often involve a multidisciplinary team (e.g., family and child advocates, law enforcement, attorneys) to address the various needs of children and families. Individuals who are part of such a multidisciplinary team should aim to provide comprehensive services and care; this involves understanding the various ways maltreatment can affect children and how children may cope with such adverse experiences. Individuals who are not directly involved in such services, such as parents, teachers, and coaches, may also benefit from a greater understanding of children's coping responses and their beliefs and perceptions about themselves and their environment. This study took children's direct voices into account and had implications regarding how multidisciplinary teams and lay persons understand children's perceptions and coping responses following maltreatment, as well as how further research can lead to effective early interventions. This understanding can aid in fostering more empathetic interactions, challenging inaccurate assumptions about the effects of abuse, and encouraging more helpful coping responses.

Childhood Maltreatment

The Centers for Disease Control and Prevention defines adverse childhood experiences (ACEs) as harmful or potentially harmful events or exposures to violence, abuse, or neglect before age 18 (CDC, 2020b). Common types of ACEs include sexual abuse, physical abuse, emotional abuse, and neglect. Child sexual abuse includes any sexual contact between a child and an adult (Bernstein et al., 2003). Physical abuse includes bodily harm that causes an injury or risk of injury (Bernstein et al., 2003). Emotional abuse includes harmful language and degrading behaviors that damage a child's sense of worth or wellbeing by communicating harmful ideas, such as that they are worthless, flawed, unloved, or only valued when meeting another person's needs (Bernstein et al., 2003). Neglect includes failure to provide the basic needs of children, including physical needs (e.g., food, shelter, safety, health care) and emotional needs (e.g., love, belonging, nurturance, support; Bernstein et al., 2003).

Studies have consistently shown that childhood maltreatment is directly associated with various adverse effects that can be chronic. All types of maltreatment can lead to chronic stress and have sustained effects on brain development and functioning, resulting in children to be more vulnerable to developing psychological symptoms and disorders later in life (CDC, 2020a; Heany et al., 2017). Childhood maltreatment is associated with negative outcomes, such as injuries (e.g., traumatic brain injury), mental health conditions (e.g., depression, anxiety, posttraumatic stress disorder), maternal health concerns (e.g., pregnancy complications), infectious diseases (e.g., sexually transmitted diseases), chronic diseases (e.g., cancer, diabetes), risky behaviors (e.g., substance abuse), and disadvantaged opportunities (e.g., education, occupation; CDC,

2020a). Given the vast adverse effects that childhood maltreatment is associated with, efforts to further comprehensive interventions are warranted.

Interestingly, studies have found that emotional abuse and emotional neglect demonstrated the strongest associations with adverse outcomes. Emotional abuse and neglect were associated with the highest levels of addictions and the most negative cognitive, psychological, sexual health, and physical health conditions compared to other types of maltreatment (Strathearn et al., 2020). Another study found that while all types of maltreatment were positively associated with increased depressive symptoms, emotional abuse and emotional neglect had the strongest associations (Humphreys et al., 2020). These findings demonstrate that maltreatment can be extremely harmful, even if its effects are not apparently visible.

Early Maladaptive Schemas (EMS)

Various interventions aim to address how early experiences in childhood impact an individual later in life. Schema therapy, originally developed by Young et al. (1990) to treat personality disorders, expands on traditional cognitive approaches (Beck, 1983). Schema therapy addresses core psychological themes and emphasizes childhood and adolescent origins of psychological problems and maladaptive coping styles (Young et al., 2003). These psychological themes, also called schemas, are emotional and cognitive themes regarding oneself and one's environment (Young et al., 2003). Schemas can distort an individual's perceptions and beliefs regarding oneself and their environment, as information consistent with one's schemas is typically magnified while information inconsistent with one's schemas is typically minimized (Schmidt et al., 1995).

Early maladaptive schemas (EMS) are a subtype of schemas and are dysfunctional themes that originate in childhood due to one's environment and experiences (Schmidt et al., 1995; Young et al., 2003). Eighteen common EMS have been identified (Young, 2005) and can be further conceptualized into four overarching domains: (1) the disconnection/rejection domain with schemas of emotional deprivation, social isolation/alienation, emotional inhibition, defectiveness/shame, mistrust/abuse, and negativity/pessimism; (2) the impaired autonomy/performance domain with schemas of dependence/incompetence, failure, subjugation, abandonment/instability, enmeshment, and vulnerability; (3) the excessive responsibility/standards domain with schemas of self-sacrifice, unrelenting standards, and punitiveness; and (4) the impaired limits domain with schemas of entitlement/grandiosity, approval-seeking, and insufficient self-control (Aloi et al., 2020; Bach et al., 2018; Kriston et al., 2012).

Caregiver-child relationships are an especially prominent factor, and the lack of core emotional needs (e.g., secure attachment, autonomy, competence and a sense of identity, freedom to express valid needs and emotions, spontaneity and play, realistic limits and self-control; Bowlby, 1977) may result in the development of EMS (Young et al., 2003). EMS are composed of memories, emotions, cognitions, and bodily sensations, and become more apparent and stable throughout life if several experiences are consistent with the schema (Schmidt et al., 1995; Young et al., 2003). Experiences that occur earlier in life and are more severe and frequent are believed to lead to more pervasive and stable schemas (Young et al., 2003). For example, a child who has experienced several incidences of severe maltreatment may have a stronger and more pervasive defectiveness/shame schema than if they were to experience a single incident that was

less severe. This is not to say that single incidences that are less severe do not affect children, but that children's beliefs and perceptions about themselves and their environment may be less affected compared to severe recurring experiences.

Numerous psychological conditions have been identified to be positively related to EMS, such as depressive symptoms, social anxiety, hostility (Calvete et al., 2013b), conduct disorder, oppositional defiant disorder (Van Vlierberghe et al., 2010), paranoid ideation, psychoticism, interpersonal sensitivity, obsessive-compulsive symptoms, and somatization (Güner, 2017). EMS have also been found to be positively associated with overall distress, depression, and anxiety, and negatively associated with positive affect and self-esteem (Schmidt et al., 1995).

EMS have been found to differentiate healthy individuals from individuals with psychological symptoms. One study found that a clinic referred group of children endorsed significantly more pervasive EMS compared to a community group of children (Stallard, 2007). Significant differences were also found when comparing a group of adults with obsessive-compulsive disorder, eating disorder, or chronic pain disorder to a healthy group (Voderholzer, et al., 2014). These findings suggest that endorsement of more EMS may indicate concern for the existence or development of psychological symptoms.

EMS Compared to Adaptive Schemas

Evidence suggests that the belief that EMS are negatively correlated with adaptive schemas and vice versa is inaccurate, as an increase in the presence of EMS does not necessarily correspond with a decrease in adaptive schemas (Louis et al., 2018). Rather, EMS and adaptive schemas should be viewed as distinct dimensions, rather than opposite

constructs, as individuals can have contradictory beliefs about themselves and their environment (Louis et al., 2018). Schemas have various effects in different situations for different people and terms like “maladaptive” and “adaptive” simply suggest their general impact (Louis et al., 2018).

Development of EMS

Schemas composed of memories, emotions, and bodily sensations (e.g. emotional deprivation, vulnerability, emotional inhibition, enmeshment) are believed to develop prior to a child’s ability to acquire language; schemas composed of cognitions (e.g. mistrust/abuse, dependence/incompetence, failure, punitiveness) are believed to develop later in life (Young et al., 2003). The dysfunctional nature of EMS typically becomes more apparent and stable throughout life when they more clearly affect an individual’s self-perception and interpersonal relationships (Young et al., 2003), as well as demonstrate negative effects such as increased anxiety and depression (Schmidt et al., 1995). Thus, according to schema therapy, EMS are hypothesized to be present in young children, but may not be as apparent compared to EMS in adults.

Although research on EMS has primarily examined adults, EMS have also been identified in children (e.g., Calvete et al., 2013b; Calvete et al., 2015; Güner, 2017; Loose et al., 2018; Rijkeboer & Boo, 2010; Stallard & Rayner, 2005; Van Vlierberghe et al., 2010). During childhood, EMS can be a way for children to understand and manage their environment (Schmidt et al., 1995). In this sense, their maladaptive nature is unclear. However, studies have shown that EMS present in childhood are dysfunctional and related to adverse outcomes (e.g., Calvete et al., 2013a; Loose et al., 2018; Muris, 2006; Stallard, 2007). In a study that examined 569 children between the ages of 8 and 13,

children exhibited the same EMS as adults, and all EMS loaded onto one general factor representing maladaptation (Loose et al., 2018). In another study that examined 1,187 adolescents between the ages of 14 and 17, a bidirectional relationship was found between EMS of abandonment, defectiveness/shame, and emotional deprivation and depressive symptoms six months later (Calvete et al., 2013a), suggesting that EMS and adverse outcomes maintain one another and that this relationship is persistent over time. Additionally, statistically significant moderate correlations were found after six months in both a community group and clinic referred group of children and adolescents aged 9 to 18 years, supporting the finding that EMS are present and moderately stable in young individuals (Stallard, 2007). EMS were also related to various psychological symptoms, such as anxiety, depression, disruptive behaviors, eating problems, and substance use in children between 12 and 15 years (Muris, 2006). These findings suggest that, similar to adults, EMS are present, stable, and dysfunctional in children.

Early Maladaptive Schemas, Familial Factors, and Childhood Maltreatment

During childhood, one's environment predominantly consists of their caregivers and family members. Thus, children's perceptions and beliefs are largely affected by the actions of these individuals. Negative parental rearing behaviors, such as rejection, control, anxious rearing, and low emotional warmth, have been associated with the presence of more EMS in children (Muris, 2006). This finding demonstrates the importance of children's relationships with caregivers and the lasting effects they may have on their perceptions of themselves and their environment.

Childhood maltreatment has been found to be associated with EMS. Childhood physical abuse, physical neglect, emotional abuse, and emotional neglect were correlated

with EMS of abandonment/instability, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation/alienation in a sample of 21,000 female college students (Rezaei et al., 2016). Additionally, one study found that emotional maltreatment was significantly associated with EMS of emotional deprivation, dependency, social isolation, failure, vulnerability, subjugation, and self-sacrifice in adolescents aged 13 to 19 (Lumley & Harkness, 2007). Another study found that parental emotional maltreatment was the strongest predictor of EMS compared to emotional maltreatment from peers, intimate partners, and others in a sample of 98 undergraduate students (McCarthy & Lumley, 2012). Childhood emotional abuse and emotional neglect were also related to future symptoms of anxiety and depression; this relationship was mediated by EMS of vulnerability, defectiveness/shame, and self-sacrifice (Wright et al., 2009). Emotional neglect was also related to later symptoms of dissociation, and this relationship was mediated by EMS of vulnerability and defectiveness/shame (Wright et al., 2009). These findings suggest that childhood maltreatment, especially from parental figures and caregivers, plays a role in the development of EMS and various negative psychological symptoms and disorders.

EMS and Individual Characteristics

Although EMS are hypothesized to develop in childhood, the developmental period when EMS become activated and more enduring is unclear. Little differences in EMS were found between age groups (11-12 years compared to 13-16 years; Stallard & Rayner, 2005), while another study found that older age was associated with higher scores on EMS of social isolation/alienation, emotional inhibition, and unrelenting standards (Lumley & Harkness, 2007). Although previous studies have found that EMS

tend to be stable throughout life (Gruhn & Compas, 2020), it is important to acknowledge that EMS can be malleable; new EMS can be formed, previously held EMS can be discarded, and the degree that one perceives an EMS as true can vary throughout life.

It is also unclear whether or not gender makes a difference in one's development of EMS. One study found no differences based on gender (González-Jiménez & del Mar Hernández-Romero, 2014), while other studies found that girls had higher scores on EMS of vulnerability (Lumley & Harkness, 2007) and social isolation/alienation (Stallard, 2007). Thus, further research is needed to understand if and how individual factors such as age and gender are related to EMS.

Coping Responses

According to schema therapy, coping responses are driven by schemas (Young et al., 2003). However, there is limited research examining the relationship between EMS and coping responses, especially in children. Coping can be defined as cognitive and behavioral responses that an individual utilizes to manage stress (Lazarus & Folkman, 1984) and can be conceptualized into three overarching domains: (1) self-sufficient coping includes responses such as planning, active coping, positive reinterpretation, suppression of competing activities, acceptance, restraint, humor, and turning to religion; (2) avoidant coping includes responses such as denial, behavioral disengagement, substance use, and mental disengagement; and (3) socially-supported coping includes responses such as emotional social support, instrumental social support, and focus on and venting of emotions (Litman, 2006). Self-sufficient and socially-supported coping may be viewed as more helpful compared to avoidant coping. Self-sufficient and socially-supported coping responses have been found to be positively associated with positive

traits (e.g., social intelligence, prudence, hope, humor, spirituality, perspective) and negatively associated with anxiety; avoidant coping was negatively related to positive traits and positively related to anxiety (Litman, 2006).

Coping Responses in Children

Different situational factors may determine the coping responses one feels is appropriate. Research on coping in children has generally demonstrated that avoidant coping responses are related to negative outcomes. In one study examining 783 adolescents aged 14 to 18, avoidant coping responses strongly predicted internalizing and externalizing mental health problems (Arslan, 2017). Another study examining 140 adolescents aged 13 to 17 found that coping responses such as denial, substance use, use of emotional support, and behavioral disengagement were directly related with depression and suicidal ideations; coping responses such as active coping, planning, and use of instrumental support were unassociated with depression and suicidal ideations (Horwitz, 2011). On the other hand, one study found no relationship between coping responses and symptoms of anxiety, depression, and posttraumatic stress disorder, and no relationship between family support and coping responses in 106 girls aged 12 to 17 with a history of sexual abuse (Guerra et al., 2018). These mixed findings prompt further research to understand coping responses in children.

Coping Responses and Individual Characteristics

Several studies have suggested differences in coping responses based on gender. Adolescent girls reported significantly more use of emotional social support (Horwitz, 2011; Phelps & Jarvis, 1994; Washburn-Ormachea et al., 2004), instrumental social support, positive reinterpretation and growth, acceptance, religion, and focus on venting

of emotions (Phelps & Jarvis, 1994) than boys. Boys reported significantly more use of humor and avoidant coping responses than girls (Phelps & Jarvis, 1994). Similar differences have been found in adults. Women were more likely to seek social support and focus on venting of emotions; men were more likely to use substances and humor (Carver et al., 1989; Deisinger et al., 1996). Some differences in coping responses based on age have also been found, with older adolescents reporting significantly more use of active coping, emotional support, planning, and acceptance (Horwitz, 2011). Individual characteristics such as gender and age may play a role in children's coping responses, but further research is warranted to understand if and how these factors might relate to coping responses.

EMS and Coping Responses

According to schema therapy, adverse experiences lead to the development of EMS, and coping responses are developed in response to EMS (Young et al., 2003). Coping responses are differentiated from EMS, as various coping responses can be utilized in various situations at different stages of life, and EMS are thought of as stable underlying perceptions and beliefs across various situations (Young et al., 2003). Coping responses may be utilized to avoid or adapt to overwhelming emotions that accompany EMS, but they do not aid in changing maladaptive schemas into adaptive ones (Young et al., 2003). Throughout life, EMS are believed to be maintained by metacognitive disturbances and the use of unhelpful coping responses (Young et al., 2003).

The preference for various coping responses is associated with various EMS and may be explained by an individual's ability to regulate their stress and emotions (Ke & Barlas, 2020). When one's emotional needs are not met in childhood, they may have

lower perceived self-efficacy and a higher tendency to cope with avoidant strategies, which has been found to be strongly correlated with EMS severity (Ke & Barlas, 2020). In a study that examined 699 adolescents aged 11 to 18 years, coping responses mediated the relationship between EMS and schema modes (van Wijk-Herbrink et al., 2018), which is defined by schema therapy as emotional-cognitive-behavioral states in a specific point in time (e.g., vulnerable child, angry child, impulsive/undisciplined child, happy child; Young et al., 2003). Coping responses also mediated the relationship between EMS and internalizing and externalizing behavioral problems (van Wijk-Herbrink et al., 2018). Coping responses are utilized in response to EMS and also maintain EMS; this bidirectional relationship may lead to adverse outcomes.

Present Study

Although schemas can also be adaptive and develop later in life, the present study focused on schemas that are maladaptive and develop early in life (i.e., EMS). Additionally, not all schemas are a result of ACEs (Young et al., 2003). Individuals can form and modify schemas throughout the course of life as a result of various positive, negative, and neutral experiences. The present study focused on EMS in the context of childhood maltreatment experiences due to the nature of data collection from forensic interviews conducted at a child advocacy center, as well as the gap in the literature on EMS.

Significance of the Study

Although EMS are assumed to stem from childhood experiences, it is unclear when in life EMS are formed, whether or not all EMS exist at various points in life, and if schemas in childhood can be conceptualized as maladaptive for all children (Loose et al.,

2018). Establishing the presence of schemas in children adds support to current theoretical models (Stallard & Rayner, 2005). The present study added to the investigation of the presence of EMS in children, as well as how EMS are related to coping responses, abuse factors (e.g., frequency, type), and individual characteristics (e.g., gender, age).

A better understanding of EMS and coping responses that develop due to childhood maltreatment may yield insight into the development of early interventions for children who have experienced maltreatment. If schemas are present in children in a similar way as they are in adults, concepts of schema therapy may serve to develop interventions targeted towards children (Van Vlierberghe et al., 2010). From a clinical perspective, identifying these factors should be followed by an effort to promote and foster adaptive schemas and helpful coping responses; clinicians can also reassess EMS and coping responses over time for meaningful change. If children's coping responses can become more helpful, they may perceive and react to stressors in manners that yield more positive outcomes (Garcia, 2010).

The present study also addressed the importance of taking children's own perceptions into account. One study found that children's self-reported difficulties related to emotional symptoms, conduct problems, hyperactivity and inattention, and peer relationships had a higher correlation with EMS scores than parent scores (Loose et al., 2018). Additionally, self-assessment scores and parent scores of difficulties were not significantly correlated (Loose et al., 2018). This inconsistency between child reports and caregiver reports indicates the importance of considering children's own voices and perceptions.

Further, this study had implications regarding how multidisciplinary teams and community members understand the multitude of ways in which children present themselves following maltreatment. Individuals who are directly involved in the care of children who have experienced maltreatment (e.g., social workers, therapists, psychologists, child advocates) and individuals who are not directly involved (e.g., parents, teachers, coaches) may gain further understanding of the different ways that maltreatment affects children's perceptions of themselves and their environment, how helpful and unhelpful coping responses may be utilized, and how individual factors and abuse factors may play a role.

Forensic Interviews

The present study was an extension of an ongoing collaboration between First Witness Child Advocacy Center (FWCAC) and the College of Education and Human Service Professions at the University of Minnesota Duluth. Child advocacy centers are uniquely positioned to ensure the safety of the child, assess protective factors of non-offending caregiver(s), offer support, and coordinate with other agencies in the community. They provide a safe environment for children who are alleged victims of abuse and neglect and coordinate comprehensive responses to children and their non-offending caregiver(s).

FWCAC, a child advocacy center in Duluth, Minnesota, conducted forensic interviews with children regarding allegations of physical and sexual abuse, alongside a multidisciplinary team consisting of law enforcement, attorneys, child welfare professionals, and other mental health or medical professionals. Forensic interviewing, a process designed to accurately elicit information regarding abuse and neglect from

children, is one of the most significant interventions aimed at conciliating on behalf of children (Saywitz et al., 2011). The overarching principle is to provide children a safe environment to disclose information regarding potential abuse and neglect in a way that is unbiased and avoids suggestion of maltreatment. Most comprehensive child abuse investigations start with a forensic interview, which then provides direction for further investigation. Although not all individuals who make up the multidisciplinary team are directly involved in the forensic interview, they are all likely to benefit from the information obtained from the interview (Jones et al., 2005). Forensic interviews are typically single sessions, but can be extended into multiple sessions if necessary (e.g., multiple victimizations, disabilities, age and development, trafficking victim-survivor). Most forensic interviews are 45-60 minutes, but may be a shorter length of time (e.g., younger children with shorter attention spans) - or longer as needed.

FWCAC utilized the ChildFirst® Forensic Interview Protocol, which is approved and accredited by the National Children's Alliance. The protocol is a semi-structured approach, allowing interviewers more flexibility to meet the unique needs and abilities of each child, while gathering information that is neutral and legally sound. The ChildFirst® Forensic Interview Protocol was designed by front-line child abuse professionals at Zero Abuse Project, a 501(c)(3) organization, with the intention to enhance the knowledge of front-line child abuse professionals and teams. The protocol is regularly updated over the years, as new research findings influence the fields of forensic interviewing and child development. Additionally, the protocol is widely utilized and highly regarded throughout the United States and several other countries, as its use has been upheld

through appellate court opinions for providing expert forensic testimony (e.g., Barthman v. State, 2019; Mooneyham v. State, 2005).

The overriding principle of ChildFirst® Forensic Interview Protocol is that interviews are always in the best interest of the child, meaning that the cognitive, physical, emotional, and psychological needs of the child are the primary concerns. The phases of the protocol include: (1) the rapport phase orients the child to the interview and encourages narratives; (2) the transition to the topic of concern phase provides structure to communicate about all forms of maltreatment; (3) the explore phase details uses narrative to obtain details of the abuse report, explore family relationships, consider multiple forms of maltreatment, and explore alternative hypotheses; and (4) the closure phase provides a respectful end to the interview, addresses personal safety for the child, addresses the child's questions and concerns, and returns the child to a neutral state. The use of anatomical diagrams and dolls, if deemed appropriate and defensible by a trained interviewer who is well versed in the relevant research (Kendrick, 2013), occurs in the explore details phase.

Interviewers using the ChildFirst® Forensic Interview Protocol use open-ended questions, non-suggestive questioning techniques, and respectful interviewing practices to elicit narratives, explore alternative hypotheses, and ensure a legally defensible child forensic interview. In this protocol, the types of questions asked and the order questions are asked emphasize and demonstrate developmentally appropriate and legally defensible questioning techniques (Walker, 2013). Various additional considerations regarding the child are involved in forensic interviews such as the child's developmental abilities, culture, disabilities, and the effects of potential trauma. Additionally, various

considerations regarding the interview include timing, documentation, setting, role of the interviewer, questions asked, and interview aids.

Research Questions

The present study aimed to examine the following questions: (1) What is the prevalence of EMS and coping responses in children who have experienced maltreatment? (2) What is the relationship between EMS and coping responses? (3) How do qualitative data compare to previous theoretical structures found in quantitative studies? and (4) How do individual factors (i.e., age, gender, race) and abuse factors (i.e., frequency, relationship to perpetrator, type) relate to EMS and coping responses?

Hypotheses

The following hypotheses respectively pertained to the research questions: (1) EMS of mistrust/abuse, defectiveness/shame, vulnerability, and emotional deprivation/abandonment were hypothesized to be the most prevalent, as these EMS are hypothesized to directly develop due to traumatization, victimization, or a lack of stability, understanding, and love in early environments (Young, 2003); (2) EMS would be positively correlated with avoidant coping responses, as adverse experiences are hypothesized to lead to the development of both EMS and unhelpful coping responses (Young, 2003); (3) no hypothesis due to the exploratory nature of the research question; and (4) more severe abuse factors (i.e., multiple incidences) would be associated with higher levels of EMS, and the effects of other individual and abuse factors were exploratory.

Method

Participants

Individuals under the age of 18 were brought to FWCAC when a report made to law enforcement or social services warranted a forensic interview to attain more information. Children under the age of 12 who disclosed any sexual abuse or any criminal-level physical abuse were required by St. Louis County regulations to be scheduled for a forensic interview. Other allegations from children under the age of 18 that warranted additional information were scheduled for a forensic interview as well. After staff at FWCAC were made aware of a need for a forensic interview, an interview was scheduled as early as possible. Vulnerable adults were interviewed at FWCAC as well, but were excluded given the infrequent number of interviews (i.e., one per year). Cases in which children did not report a primary or secondary form of abuse were not included, as the present study was interested in histories of maltreatment.

Measures

EMS

EMS were assessed using the Dusseldorf Illustrated Schema Questionnaire for Children (DISC; Loose et al., 2018). The DISC was adapted from the Young Schema Questionnaire - Short Form 3 (YSQ-S3; Young, 2005) to include two items per schema in child-appropriate language and one illustration per schema to further aid children's understanding (Loose et al., 2018). Due to feasibility considerations in consultation with FWCAC, the use of illustrations were eliminated in the present study. In another study of EMS in children, illustrations were found to be unnecessary in aiding children's understanding (Stallard & Rayner, 2005). The 18 schemas were compiled into a list with

a 6-point Likert scale where 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*.

Some of the adapted EMS items had good to acceptable fit (Hu & Bentler, 1999) to the original 18 schemas (RMSEA = .04; SRMR = .05), while others slightly missed fulfilling the criteria ($\chi^2/df = 2.05$; CFI = .86, TLI = .85; Loose et al., 2018). However, considering the complexity of the structure, results indicated a satisfactory goodness-of-fit to the original 18 EMS and demonstrated that children aged 8 to 13 exhibited the same EMS as adults (Loose et al., 2018). Internal consistency was good, with Cronbach's alpha = .87 and no increase in Cronbach's alpha when any items were excluded (Loose et al., 2018). Predictive validity was demonstrated with higher EMS scores correlating with more behavioral difficulties, as measured by the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). Test-retest reliability was deemed acceptable, as Pearson's correlation coefficient was significantly different from zero for 13 to 14 months ($r = .61$, $p < .001$) and for 26 to 34 months ($r = .37$, $p < .05$; Loose et al., 2018).

Coping Responses

Current measures for assessing schema coping styles were not well validated (Ke & Barlas, 2020), so adult coping literature should be relied on as a guide in the consideration of coping in adolescents (Phelps & Jarvis, 1994). Thus, coping responses were measured with the COPE Inventory (Carver et al., 1989), which assesses 15 coping responses on a 4-point Likert scale where 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*. The COPE Inventory demonstrated convergent validity,

as more helpful coping responses such as planning and active coping were related to desirable personality qualities (e.g., optimism, self-esteem, hardiness) and less helpful coping responses such as denial and behavioral disengagement were inversely related to desirable personality qualities (Carver et al., 1989). Additionally, the COPE Inventory demonstrated discriminant validity as the correlations with personality qualities and social desirability were low and there was no correlation with other measures of coping styles (e.g., blunting and monitoring; Carver et al., 1989). Test-retest reliabilities after six weeks ($r = .46-.86$) and eight weeks ($r = .42-.89$) demonstrated that self-reported coping responses tended to be relatively stable (Carver et al., 1989). Internal consistency was acceptably high ($r = .45-.92$), with only mental disengagement falling below .60 - theoretically due to its multiple-act nature (Carver et al., 1989). Additionally, self-report of coping responses in specific situations had higher internal consistency than general coping responses (Carver et al., 1989). Additional information about coping responses was collected by asking caregivers an open-ended question during the pre-meeting (a meeting before the forensic interview to orient individuals of the multidisciplinary team and family members to the child, allegation reported, and process of the forensic interview), "How have you seen [the child] cope with the situation?" This question allowed for inclusion of coping responses that children are not able to articulate during the forensic interview.

Individual Factors and Abuse Factors

Various information was included in case reports from law enforcement, social services, and other members of the multidisciplinary team. Information included, but was not limited to: child demographic information (e.g., age, gender, race/ethnicity), alleged

offender information (e.g., juvenile or adult, relationship to the child), abuse allegations, prosecution rates, removal of children from the non-offending caregiver's home, safety planning, and findings of abuse or neglect. Information regarding childhood maltreatment was initially gathered through reports from law enforcement and social services, who inquired about scheduling forensic interviews. The information was then updated by FWCAC as they worked with the child, sibling(s), and non-offending caregiver(s) to determine the primary allegation of abuse, secondary abuse, and any other forms of maltreatment. Childhood maltreatment types were defined by 2021 Minnesota statutes 541.073 (Actions for Damages Due to Sexual Abuse, 2021), 609.378 (Neglect or Endangerment of Child, 2021), and 260C.007 Subdivision 5 (Definitions, 2021). Data regarding individual and abuse factors were obtained from these case reports.

Individual factors included age, gender, and race. Age was measured on a continuous scale in years. Gender and race were conceptualized according to the child advocacy center. Gender was conceptualized as female, male, and transgender/nonbinary. Race was coded as Black, Indigenous, and people of color (BIPOC) and White. Abuse factors included abuse type(s), relationship to perpetrator, and frequency of abuse. Abuse types included (1) sexual abuse, (2) physical abuse, (3) emotional abuse, (4) witness/exposure to violence, drugs, crimes, or pornography, and (5) multiple types of abuse. Perpetrator relationship was conceptualized as someone in the family (e.g., parent, siblings, step siblings, foster siblings), someone outside of the family (e.g., teacher, neighbor, friend, classmate), or someone in and outside of the family. Frequency of abuse was conceptualized as either singular or multiple instances.

Procedure

The individual who served as the forensic program coordinator, multidisciplinary team facilitator, and a forensic interviewer attended research team meetings to aid the development of the present study (October 2020 to January 2022). Additionally, she trained other forensic interviewers and interns at the child advocacy center on the details of the present study and on how to complete the measures. The first author also met with and was in contact with the forensic program coordinator, other forensic interviewers, and interns on a regular basis to orient them to the study, check-in, and answer questions. In January 2022, a new forensic program coordinator was appointed and became the staff supervisor on the project.

Information regarding EMS and coping responses was collected from forensic interviews by FWCAC staff (forensic interviewers and interns). Forensic interviews were conducted with one forensic interviewer and the child and were recorded, which allowed staff such as interns to review the forensic interview and collect the data as well. The semi-structured method allowed interviewers to inquire about various EMS and coping responses that were not already discussed. As recommended by Guerra and Pereda (2015), items from the DISC and COPE were not directly administered to the children to avoid exposing children to stressful instruments. Along the same lines, to avoid contact between the children and unknown researchers, staff at FWCAC gathered data regarding EMS and coping responses either by filling out the questionnaire with pen and paper (See Appendix A) or by filling out the electronic version of the questionnaire on Qualtrics. Simultaneously, direct quotes and observations that reflected EMS and coping responses were collected to facilitate the exploratory thematic analysis of qualitative data. Items

from the DISC and COPE Inventory, as well as definitions of each schema and coping response were compiled into a separate file that was used to aid FWCAC staff's understanding of each construct (See Appendix B).

Data were de-identified by removing names included in the reports and labeling information only by the case number used by the child advocacy center. Data were compiled by FWCAC staff who already had access to case files and records as part of their position. The de-identified data were compiled with a password-protected file using HIPAA-compliant, secure Box Drive and Qualtrics.

The present study was approved by the university's institutional review board (Study #STUDY00011859). Written permission to conduct the present study and obtain information from case records was obtained from all agencies that make up the multidisciplinary team (five law enforcement agencies, attorney's office, Initial Intervention Unit [social workers investigation unit], prosecutor, sheriff department, Program for Aid to Victims of Sexual Assault, other community agencies).

The present study was pre-registered with the Center for Open Science (<https://osf.io/pb89v>). This study differed from the proposed protocol in that hierarchical regression to assess how abuse factors moderate the relationship between EMS and coping responses and exploratory factor analyses to investigate how our findings compare to the underlying theoretical structure of EMS were not tested. G*Power software was used to calculate the sample size needed to obtain .80 power; this demonstrated a required sample size of 117 for hierarchical regression. Additionally, several factors were not significantly related to EMS or coping responses, and thus did not warrant being included in hierarchical regression (Helms, 1989). Accordingly, these

analyses were removed. We decided to conduct cluster analysis and Pearson correlations rather than exploratory factor analysis due existing literature examining quantitative data and a lack of literature examining qualitative data.

Data Analytic Strategies

A mixed-methods approach was used. The following statistical analyses were used to address the research questions respectively: (1) descriptive statistics to understand the prevalence of EMS and coping responses; (2) multivariate multiple regression assessed how EMS domains relate to coping responses; (3) qualitative data analysis processes are discussed below; and (4) ANOVAs and t-tests assessed how individual factors and abuse factors relate to EMS and coping responses, and Bonferroni post hoc analysis to distinguish differences between significant groups; multivariate multiple regression was not used due to preliminary analyses suggesting that sociodemographic factors did not warrant being entered into inferential analyses (Helms, 1989).

Quantitative data analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 27. Qualitative data analyses were conducted using NVivo (Release 1.5.1).

Qualitative Data Analysis

In regard to qualitative data analysis, participants represented a subset ($n = 41$) of participants from the quantitative analysis ($n = 100$). Data were imported and three undergraduate/postbaccalaureate research assistants engaged in open coding using NVivo. They independently coded five cases (i.e., 20 responses). Consensus estimates for ordinal data was used to assess interrater reliability (Stemler, 2004). Accordingly, the coders met as a group to come to an agreement about the quantitative levels of the

constructs by discussing similarities in differences, as well as themes and subthemes. An odd number of coders were used so that agreement could be more readily discussed.

The initial percent agreement for interrater reliability was 87%. If there were discrepancies, the reviewers had a discussion, and the first author and faculty advisor facilitated reconciliation if the coding decision remained discrepant. Once in agreement, a codebook was drafted (See Appendix C). An iterative process was employed to create a codebook that included details about agreed-upon code definitions. New codes were added as needed to the codebook until no new concepts emerged with successive interviews, at which point interview data collection had stopped. We used qualitative thematic analysis to identify, analyze, and report themes within the data. Because a priori quantitative studies have found several themes of EMS and coping mechanisms (e.g., Aloï et al., 2020; Litman, 2006), we began coding the data using a set of deductive codes derived from these findings.

In addition, because research on EMS and coping mechanisms in children is limited, we understood the need to be open to explore new themes and modifications that may emerge from the interviews. While coding, the three undergraduate research assistants documented ideas about evolving codes and relationships (e.g., generative hypotheses, observations and ideas about the data, thoughts on current hypotheses) in individual theoretical memos. Thus, both inductive and deductive coding were used (Fereday & Muir-Cochrane, 2006). In regard to EMS, no higher-order (i.e., schema domains) or second-order (e.g., mistrust and abuse) codes were added after the initial codebook. Similarly, no higher-order codes (e.g., avoidant coping) or second-order codes (e.g., denial) were added after the initial codebook. Additionally, no codes were trimmed

down during the process. Subcodes were noted to further define the finalized higher-order and second-order codes.

Lastly, hierarchical cluster analysis into four clusters was applied to the qualitative data to further examine how coping responses relate to EMS. Themes and patterns were examined in a flexible manner (Boyatzis, 1998) and discussed among the researchers. A tree diagram and Pearson correlations were examined to explore the hierarchical relationship between items.

Results

Sample Demographics

A total of 100 cases were included in the present study. Sample demographics are reported in Table 1. A power analysis revealed that a sample size of approximately 97 would be needed to obtain statistical power at the recommended .80 level (Cohen, 1988) with an anticipated $f^2 = 0.15$ effect size; thus, the final sample of 100 was adequate to detect significant results of moderate effect sizes with sufficient power. The average age of the sample was 10.72 years old ($SD = 3.35$), with the youngest child being 3 years old and oldest child being 17 years old. Data were collected from forensic interviews conducted from October 14, 2020 to February 17, 2022 (See Figure 1). Of the 100 cases, 50 were collected by a forensic interviewer, 39 were collected by an intern, 5 were collected by a forensic interviewer and an intern, 4 were collected by two interns, and 1 was collected by the office manager who also assisted reviewing forensic interviews and writing reports. Case descriptives are reported in Table 2. Most cases were in regard to sexual abuse due to the nature of data collection. Additionally, a majority of incidents occurred more than once and were perpetrated by someone in the family.

Prevalence of EMS and Coping Responses

Descriptive statistics of EMS are reported in Table 3. Schemas of mistrust and abuse ($n = 87$, $M = 4.02$, $SD = 1.82$), vulnerability ($n = 69$, $M = 3.91$, $SD = 1.71$), and subjugation ($n = 76$, $M = 3.74$, $SD = 1.96$) were reported at the highest levels. On the other hand, insufficient self-control ($n = 30$, $M = 1.80$, $SD = 1.30$) and entitlement and grandiosity ($n = 19$, $M = .42$, $SD = 1.17$) were reported at the lowest levels. In regard to the four overarching EMS domains, impaired autonomy and performance ($n = 97$, $M = 3.36$, $SD = 1.35$) and disconnection and rejection ($n = 100$, $M = 3.26$, $SD = 1.44$) were reported at the highest levels.

Descriptive statistics of coping responses are reported in Table 4. Acceptance ($n = 82$, $M = 2.85$, $SD = 1.12$), emotional social support ($n = 72$, $M = 2.53$, $SD = 1.18$), and mental disengagement ($n = 69$, $M = 2.43$, $SD = 1.21$) were reportedly used the most often. The coping responses reportedly used the least often were substance use ($n = 30$, $M = 1.50$, $SD = 1.04$) and behavioral disengagement ($n = 40$, $M = 1.83$, $SD = 1.11$). In regard to the three overarching domains, socially-supported coping ($n = 94$, $M = 2.41$, $SD = 1.00$) was used most often.

Relationship Between EMS and Coping Responses

The schemas of impaired autonomy and performance ($Bs = .04-.15$, $ps = .14-.68$), disconnection and rejection ($|Bs| = .04-.19$, $ps = .06-.47$), and impaired limits ($|Bs| = .02-.10$, $ps = .06-.97$) were not statistically significantly related to any coping response. Only the excessive responsibility and standards schema domain was related to coping responses, specifically self-sufficient ($B = .12$, $p = .0$) and avoidant coping ($B = -.13$, $p = .03$; See Table 5). There was a significant positive relationship between excessive

responsibility and standards and self-sufficient coping, in that as levels of excessive responsibility and standards increased by one unit, levels of self-sufficient coping increased by 0.12 units ($B = .12, p = .01, 95\% \text{ CI } [.03, .21], \eta^2 = .07$). There was a significant negative relationship between excessive responsibility and standards and avoidant coping, in that as levels of excessive responsibility and standards increased by one unit, avoidant coping decreased by 0.13 units ($B = -.13, p = .03, 95\% \text{ CI } [-.24, -.02], \eta^2 = .05$). The between-subjects test paralleled these findings (see Table 6).

Qualitative Thematic Analysis

The five most prevalent EMS and coping responses are reflected in Table 7 with example qualitative data identified by the coders that exemplified each item. The hierarchical cluster analysis examining word similarity within coded texts and testing four clusters (See Figure 2) demonstrated that several EMS were related to each other (e.g., abandonment and instability, mistrust and abuse, self-sacrifice, subjugation), with subjugation and self-sacrifice being most strongly correlated ($r = .69$). Qualitative responses describing more helpful coping responses (e.g., active coping, emotional social support, instrumental social support) were highly intercorrelated, with emotional social support and instrumental social support being most strongly correlated ($r = .93$) and focus on venting of emotions and active coping as second-most strongly correlated ($r = .75$). Additionally, verbiage around helpful coping responses was linked to verbiage around insufficient self-control; children also described using coping responses such as emotional inhibition and restraint, which were moderately correlated with defectiveness and shame ($r_s = .49 - .53$).

As another cluster, humor and substance use were weakly correlated ($r = .19$), and overall, verbiage around humor was more strongly associated with verbiage regarding other unhelpful coping responses (e.g., denial) than with more helpful coping responses (e.g., emotional social support). Suppression of competing activities and unrelenting standards emerged as another cluster ($r = .49$). Lastly, religious coping, entitlement and grandiosity, and positive reinterpretation and growth emerged as a cluster of miscellanea, as verbiage in those EMS were not correlated ($r_s = -.01 - .00$).

Differences between correlation coefficients from the present study and previous findings (Bach et al., 2018; Ke & Barlas, 2020) were calculated using

$$z = \frac{\left(\frac{1}{2} \ln \frac{1+r_1}{1-r_1}\right) - \left(\frac{1}{2} \ln \frac{1+r_2}{1-r_2}\right)}{\sqrt{\frac{1}{n_1-3} + \frac{1}{n_2-3}}} \quad (\text{Soper, 2022}).$$

Z-scores between our sample correlations and correlations found in the literature for coping responses (Ortega et al., 2016) range from 10.15 to 0.40. With correlation between active coping and substance use resulting in the smallest z-score ($z = 0.40, p = .69$) and correlations between active coping and denial resulting in the largest z-score ($z = 10.15, p < .001$). The following correlations were also statistically different from each other: active coping and focus on venting of emotions ($z = 6.77, p < .001$); denial and acceptance ($z = 3.83, p < .001$); humor and acceptance ($z = -3.14, p < .01$); focus on venting of emotions and emotional and instrumental social support ($z = 3.26, p < .01$); denial and restraint ($z = 2.29, p = .02$); and seeking social support and emotional social support ($z = 1.98, p = .05$).

In regard to EMS, z-scores between our sample correlations and correlations found in the literature (Bach et al., 2018) range from 0.10 to 6.61. With correlation between abandonment/instability and punitiveness resulting in the smallest z-score ($z =$

0.10, $p = .92$) and correlations between self-sacrifice and emotional inhibition resulting in the largest z -score ($z = 6.61, p < .001$). Additionally, the following correlations were statistically different from each other: emotional deprivation and negativity/pessimism ($z = 3.22, p = .001$); failure and emotional deprivation ($z = 3.29, p = .001$); unrelenting standards and emotional deprivation ($z = -2.78, p = .01$); emotional deprivation and punitiveness ($z = -2.72, p = .01$); approval-seeking and punitiveness ($z = 2.72, p = .01$); subjugation and emotional inhibition ($z = 2.89, p < .01$); defectiveness/shame and emotional inhibition ($z = 2.62, p = .01$); insufficient self-control and emotional deprivation ($z = -2.20, p = .03$); unrelenting standards and negativity/pessimism ($z = -2.20, p = .03$); emotional deprivation and negativity/pessimism ($z = -2.40, p = .02$); and punitiveness and emotional deprivation ($z = -2.18, p = .03$).

Individual and Abuse Factors

Race was a statistically significant factor in that BIPOC children reported significantly higher levels of disconnection and rejection compared to White children ($p = .02$, Cohen's $d = -0.51$). Although not statistically significant, White children reported higher levels of self-sufficient coping ($d = 0.35$, 95% CI [-0.08, 0.78]) and socially-supported coping ($d = 0.39$, 95% CI [-0.05, 0.82]) with small-moderate effect sizes (See Table 8). In regard to age, there was a significant small positive correlation with the disconnection and rejection schema in that older children reported higher levels of disconnection and rejection ($r = .21, p = .04$). EMS and coping responses did not significantly differ among gender identities ($ps = .21 - .93$).

In regard to abuse factors, frequency of abuse ($ps = .15 - .77$) and relationship to the perpetrator ($ps = .13 - .93$) were not significantly related to EMS type. However,

abuse type was significant in that children who reported multiple forms of abuse reported significantly higher levels of disconnection and rejection than children who reported solely sexual abuse ($p = .01$) and children who reported solely witness/exposure to violence, drugs, crimes, or pornography ($p = .04$). Additionally, children who reported multiple forms of abuse also reported significantly higher levels of impaired autonomy and performance than children who reported sexual abuse only ($p = .03$). See Table 9 for the ANOVA outcome table.

Discussion

Consistent with previous findings (CDC, 2020b; Guerra et al., 2018; Statistica, 2022), most of the cases involved perpetrators who were someone in the family and occurred more than once. This is concerning given that caregiver-child relationships are a prominent factor in the development of EMS and recurrent adverse experiences typically have a greater impact on EMS than single incidences (Bowlby, 1977; Young et al., 2003). However, in the present study, relationship to perpetrator and frequency was not significantly related to EMS. This may be due to the cross-sectional nature of the study and these relationships may look differently across a child's life, as EMS become more apparent and stable throughout life (Young et al., 2003).

EMS and Coping Prevalence

Aside from impaired limits, which was mostly untrue for children, all EMS domains (i.e., impaired autonomy and performance, disconnection and rejection, and excessive responsibility and standards) were slightly more true than untrue for children. Additionally, mean scores of the 18 EMS were more closely aligned with those found among adolescents referred from outpatient and inpatient clinics (Van Vlierberghe et al.,

2010) and adolescents who had been diagnosed by child psychiatrists (e.g., attention-deficit hyperactivity disorder, anxiety disorders; Güner, 2017) than adolescents not receiving mental health services (Güner, 2017; Loose et al., 2018; Van Vlierberghe et al., 2010). However, EMS in the impaired autonomy and performance and disconnection and rejection domains (except for dependence and incompetence) were reported at a higher level (M range = 2.62 - 4.02; SD range = 1.66 - 2.01) than those found in referred and non-referred children (M range = 1.05 - 3.07; SD range = 0.09 - 1.41; Güner, 2017; Loose et al., 2018; Van Vlierberghe et al., 2010). Referred samples in these studies were children receiving mental health services and did not take into account child maltreatment experiences. Thus, these higher levels of impaired autonomy and performance and disconnection and rejection in the present sample may reflect the negative impact of childhood abuse on EMS.

Substance use was the least commonly reported coping response. Children may refrain from disclosing about substance use during forensic interviews; they may also not be able to or have a more difficult time obtaining substances depending on their age. Therefore, it makes sense that substance use was the least prevalent coping response. However, given research that has found associations between child maltreatment and adult substance use and disorders (e.g., Cichetti & Handley, 2019), substance use as a coping mechanism may change over time. Interestingly, acceptance was the most commonly used coping response, which may be a prerequisite for disclosure in the first place, in that there may need to be some degree of acceptance before children choose to disclose abuse. Although acceptance is generally viewed as a helpful coping response, there may be different types of acceptance that are more or less helpful. For example,

Nakamura and Orth (2005) distinguished between active acceptance, which is associated with positive psychological outcomes, and resigning acceptance, which is associated with negative psychological outcomes. Overall, children reported engaging in socially-supported and self-sufficient coping more than avoidant coping, which demonstrated the ability for children to cope in generally more helpful ways.

Multivariate Multiple Regression

Contrary to previous research that reported a positive relationship between EMS and avoidant coping (e.g., Ke & Barlas, 2020), there was a significant negative relationship between excessive responsibility and standards and avoidant coping responses. Additionally, the significant positive relationship between excessive responsibility and standards versus self-sufficient coping suggests that children are capable of adapting to stress independently to some degree. Given that coping responses maintain EMS (Young et al., 2003) and that self-sufficient coping is generally more helpful than avoidant coping (Arslan, 2017; Horwitz et al., 2011), it is hopeful that children are able to effectively adapt to stress in a way that decreases levels of EMS they hold. Other EMS domains were not significantly related to coping responses, which is in line with some previous findings (e.g., Bayrami et al., 2012; Hosseinifard & Kaviani, 2015; Nikmanesh et al., 2015). Studies that have found direct relationships between EMS and coping responses focused on adult populations (e.g., Babajani et al., 2014) or only examined avoidant coping (e.g., Basile et al., 2018). This is also the first study to our knowledge to examine the direct relationship between EMS and coping responses among children; the most related previous study is van Wijk-Herbrink et al.'s (2018), which focused solely on the disconnection and rejection EMS domain and examined coping

styles as a mediator variable. Taken together, these past studies with primarily nonsignificant findings and the nonsignificant findings in the present study suggest that the relationship between EMS and coping responses are not apparent among children but may become more significant in adulthood.

Qualitative Thematic Analysis

Qualitative thematic analyses indicated that several EMS were strongly correlated with another EMS, which is in line with previous findings (Bach et al., 2018; Ke & Barlas, 2020). Differences between most of our sample correlations and correlations found in the literature for coping responses (Ortega et al., 2016) were negligible, indicating similar findings to the literature, with the exception of active coping versus focus on venting of emotions as well as denial versus acceptance ($p < .001$). In regard to EMS, differences between our sample correlations and correlations found in the literature (Bach et al., 2018) were also primarily negligible, indicating similar findings to the literature, with the exception of correlations between self-sacrifice versus emotional inhibition as well as emotional deprivation versus negativity/pessimism ($p \leq .001$).

Individual and Abuse Factors

There was a significantly greater level of disconnection and rejection among BIPOC children compared to White children. One previous study reported differences in EMS between Kurd and Persian students (Farhadian et al., 2014). These findings call for further investigation into potential factors associated with these differences (e.g., mental health sentiments, values, norms). As suggested by Young et al. (2003), older children reported significantly greater levels of schemas composed of cognitions (e.g., mistrust/abuse, negativity/pessimism, defectiveness/shame). This suggested that perhaps

children are not able to articulate schemas that are more complex until they are more developed, which align with our results from the multivariate multiple regression. Older children also reported significantly higher levels of social isolation/alienation and emotional inhibition, which was reflected in findings by Lumley and Harkness (2007). This may reflect the increasing importance of social presentation, and the increasing prevalence of social dynamics and interactions. On the other hand, social presentation and dynamics may not yet be prevalent or valued for younger children.

In regard to abuse factors, emotional abuse often co-occurred with another form of abuse, making it difficult to differentiate the effects of each form of abuse and confirm/disconfirm previous findings that emotional abuse is the strongest predictor of EMS (e.g., McCarthy & Lumley, 2012) However, children who reported multiple forms of abuse (e.g., sexual abuse and emotional abuse) reported significantly higher levels of disconnection/rejection and impaired autonomy/performance than children who reported one form of abuse (i.e., sexual abuse, witness/exposure to violence, drugs, crimes, or pornography), suggesting that emotional abuse may exacerbate the negative consequences of abuse, despite its underrecognition in the literature.

Limitations

Limitations should be noted when interpreting the findings of this study. The cross-sectional nature of the present study limited our understanding of how EMS and coping responses change over time and with various life experiences. A longitudinal design would enable a better understanding of the development and stability of EMS and coping responses. Relatedly, the present study did not assess EMS and coping responses across different stages of a stressor due to the nature of data collection and children's

disclosure of maltreatment at various time points. In addition to the cross-sectional design, retrospective self-reports did not allow conclusions regarding causation between childhood maltreatment, EMS, and coping responses to be drawn. However, retrospective bias is minimized because the interviews occurred relatively close in time to the reported events and because questions pertained to the children's state in the present moment of the interview.

Additionally, the present study did not assess individual temperaments (e.g., emotional lability, optimism, anxiousness, passiveness, irritability), which are believed to also be related to EMS in ST (Young et al., 2003). Individual temperaments may be a factor that moderates the relationship between EMS and coping responses, but were not assessed in the present study due to the nature of data collection. Along the same lines, more information regarding EMS and coping responses may have been uncovered if the forensic interviews were unstructured and not time-limited in any way; however, the structured aspect of the forensic interviews allowed for consistency in procedures. Nonetheless, the study was further limited in that the sample was largely derived from a predominately White, Midwestern region in the United States, which limited the generalizability of findings to other populations. Lastly, there was limited literature on EMS and coping responses in children, as well as in adults, which made it difficult to fully compare the present findings with past studies.

Research Implications

Future research should examine, using a longitudinal design, how EMS and coping responses change over time and when their relationship becomes more apparent. The present findings may serve as a baseline to compare how children's perceptions and

coping responses change after impactful experiences throughout life. This may lead to a greater understanding of if, how, and why EMS change over time and how coping responses may play a role. Further, research is generally needed with more ethnically and racially diverse individuals. This would be helpful to increase the generalizability of findings and examine individual and cultural factors and experiences that may play a role in potential differences. The data collection methods in the present study call for future studies to take children's voices into account rather than solely relying on caregiver reports, as more often done.

Clinical and Policy Implications

EMS has been found to be associated with various mental health disorders (Aloi et al., 2020; Hawke & Provencher, 2013), and should thus be assessed at the time of intake to better understand clients' perceptions, how coping responses may be contributing to these EMS, and how this results in the manifestation/maintenance of various symptoms. Because coping responses and EMS maintain one another, but their relationship may not be as apparent in childhood, early interventions may be beneficial to instill more helpful coping responses and/or more adaptive schemas to disrupt this relationship. Information consistent with EMS is typically magnified while inconsistent information is typically minimized (Schmidt et al., 1995). Thus, early interventions may also limit the ability for EMS to continue being reinforced. Further, interventions may address how caregivers' maladaptive schemas influence children and childrearing practices.

Individuals who interact with children (e.g., teachers, clinicians) may pay additional attention to children who demonstrate EMS of mistrust/abuse, vulnerability,

subjugation, and other common EMS that were highly prevalent among this sample. Additionally, more attention at all levels (e.g., public policy, communities, organizations) should be given to the negative impacts of emotional abuse, given its exacerbation of EMS found in previous studies and in the present study.

Results may be utilized to create infographics and reports for the purposes of educating law enforcement and other social service providers on children's perceptions of themselves and others and coping after abuse. This is necessary given the misinformation and misperceptions such multidisciplinary team members may have in responding to child abuse reports. For example, a common misperception is that emotional abuse has less adverse effects than physical and sexual abuse (Campbell & Thompson, 2015). By sharing these results, this study aimed to gauge these individuals' work with child abuse reports and focus toward a more person-centered approach to spark thoughts on changes that can be implemented in their work.

Conclusion

Our findings support the presence of EMS among youth who have experienced maltreatment. These EMS were at a level greater than those found in referred and non-referred samples, which may reflect the impact of maltreatment. The impact of maltreatment was also reflected in children who reported multiple forms of maltreatment and higher levels of EMS than children who reported one form of maltreatment. However, children demonstrated an ability to adapt through the use of socially-supported and self-sufficient coping responses. The relationship between EMS and coping responses may become more apparent throughout life.

Bibliography

- Aloi, M., Rania, M., Sacco, R., & Basile, B. (2020). The young schema questionnaire short form (YSQ-S3): Does the new four-domain model show the best fit? *Anales de Psicología*, 36(2), 254-261. <https://doi.org/10.6018/analesps.343461>
- Arslan, G. (2017). Psychological maltreatment, coping strategies, and mental health problems: A brief and effective measure of psychological maltreatment in adolescents. *Child Abuse & Neglect*, 68, 96-106. <https://doi.org/10.1016/j.chiabu.2017.03.023>
- Ayers, T. S., Sandler, I. N., West, S. G., & Roosa, M. W. (1996). A dispositional and situational assessment of children's coping: Testing alternative models of coping. *Journal of Personality*, 64(4), 923-958. <https://doi.org/10.1111/j.1467-6494.1996.tb00949.x>
- Babajani, S., Akrami N., & Farahani, A. 2014. Relationship between early maladaptive schemas and coping styles with stress. *Journal of Life Science and Biomedicine*, 4(6), 570-574. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4530191/>
- Bach, B., Lockwood, G., & Young, J. E. (2018). A new look at schema therapy model: Organization and role of early maladaptive schemas. *Cognitive Behavior Therapy*, 47(4), 328-349. <https://doi.org/10.1080/16506073.2017.1410566>
- Barthman v. State, 919 F.3d 1118 (2019). https://www.govinfo.gov/content/pkg/USCOURTS-mnd-0_16-cr-00284/pdf/USCOURTS-mnd-0_16-cr-00284-2.pdf

- Basile, B., Tenore, K., Mancini, F., & Richfield, S. (2018). Investigating schema therapy constructs in individuals with depression. *Psychology & Clinical Psychiatry*, 9(2), 214-221. <https://doi.org/10.15406/jpcpy.2018.09.00524>
- Bayrami, M., Bakhshipor, A., & Esmaeili, A. (2012). The relationship between coping styles and early maladaptive schemas in disconnection-rejection and over vigilance-inhibition in young's schema model. *Journal of Life Science and Biomedicine*, 2(4), 178-81. <http://jlsb.science-line.com/attachments/article/16/JLSB-%202012-%20B34,%20178-181.pdf>
- Beck, A. T. (1983). Cognitive therapy of depression: New perspectives. In P. J. Clayton, & J. E. Barrett (Eds.). *Treatment of depression: Old controversies and new approaches* (pp. 265–284). Raven.
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., Stokes, J., Handelsman, L., Medrano, M., Desmond, D., & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 27(2), 169-190. [https://doi.org/10.1016/S0145-2134\(02\)00541-0](https://doi.org/10.1016/S0145-2134(02)00541-0)
- Bowlby, J. (1977). The making and breaking of affectional bonds: I. aetiology and psychopathology in the light of attachment theory. *British Journal of Psychiatry*, 130(3), 201-210. <https://doi.org/10.1192/bjp.130.3.201>
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications, Inc.
- Calvete, E., Orue, I., & González-Diez, Z. (2013a). An examination of the structure and stability of early maladaptive schemas by means of the Young Schema

Questionnaire-3. *European Journal of Psychological Assessment*, 29(4), 283-290.

<https://doi.org/10.1027/1015-5759/a000158>

Calvete, E., Orue, I., Hankin, B. L. (2013b). Transactional relationships among cognitive vulnerabilities, stressors, and depressive symptoms in adolescence. *Journal of Abnormal Child Psychology*, 41(3), 399-410. <https://doi.org/10.1007/s10802-012-9691-y>

Calvete, E., Orue, I., Hankin, B. L. (2015). A longitudinal test of the vulnerability-stress model with early maladaptive schemas for depressive and social anxiety symptoms in adolescents. *Journal of Psychopathology and Behavioral Assessment*, 37(1), 85-99. <https://doi.org/10.1007/s10862-014-9438-x>

Campbell, A. M., & Thompson, S. L. (2015). The emotional maltreatment of children in domestically violent homes: Identifying gaps in education and addressing common misconceptions: The risk of harm to children in domestically violent homes mandates a well-coordinated response. *Child Abuse & Neglect*, 48, 39-49. <https://doi.org/10.1016/j.chiabu.2015.08.009>

Carver, C. S., Scheier, M. F., Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267-283. <https://doi.org/10.1037/0022-3514.56.2.267>

Centers for Disease Control and Prevention. (2020a). *Behavioral Risk Factor Surveillance System*. <https://www.cdc.gov/brfss/index.html>

Centers for Disease Control and Prevention. (2020b). *Child Abuse and Neglect Prevention*. <https://www.cdc.gov/violenceprevention/childabuseandneglect/index.html>

- Cicchetti, D., & Handley, E. D. (2019). Child maltreatment and the development of substance use and disorder. *Neurobiology of Stress*, *10*, Article 100144.
<https://doi.org/10.1016/j.ynstr.2018.100144>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum Associates.
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, *13*, 3–21.
<https://doi.org/10.1007/BF00988593>
- Deisinger, J. A., Cassisi, J. E., Whitaker, S. L. (1996). Relationships between coping styles and PAI profiles in a community sample. *Journal of Clinical Psychology*, *59*(2), 303-310. <https://doi.org/10.1002/jclp.10223>
- Farhadian, A., Goodarzi, M. A., Taghavi, M. R., Far, A. E., & Miremadi, S. M. (2014). The comparison of early maladaptive schemas in people with different levels of trait anxiety in two ethnic groups of Iranian students. *The Neuroscience Journal of Shefaye Khatam*, *2*(3), 1-3. <http://shefayekhatam.ir/article-1-241-en.html>
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, *5*(1), 80-92.
<https://doi.org/10.1177/160940690600500107>
- Garcia, C. (2010). Conceptualization and measurement of coping during adolescence: A review of the literature. *Journal of Nursing Scholarship*, *42*(2), 166-185.
<https://doi.org/10.1111/j.1547-5069.2009.01327.x>

- González-Jiménez, A. J., & del Mar Hernández-Romera, M. (2014). Early maladaptive schemas in adolescence: A quantitative study. *Procedia - Social and Behavioral Sciences*, 132, 504-508. <https://doi.org/10.1016/j.sbspro.2014.04.344>
- Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38(5), 581-586. <https://doi.org/10.1111/j.1469-7610.1997.tb01545.x>
- Graffam Walker, A. (2013). *Handbook on questioning children: A linguistic perspective (3rd ed.)*. WABA Center on Children and Law.
- Gruhn, M. A., & Compas, B. E. (2020). Effects of maltreatment on coping and emotion regulation in childhood and adolescence: A meta-analytic review. *Child Abuse & Neglect*, 103. Article 104446. <https://doi.org/10.1016/j.chiabu.2020.104446>
- Guerra, C., Farkas, C., & Moncada, L. (2018). Depression, anxiety and PTSD in sexually abused adolescents: Association with self-efficacy, coping and family support. *Child Abuse and Neglect*, 76, 310-320. <https://doi.org/10.1016/j.chiabu.2017.11.013>
- Guerra, C., & Pereda, N. (2015). Research with adolescent victims of child sexual abuse: Evaluation of emotional impact on participants. *Journal of Child Sexual Abuse*, 24(8), 943-958. <http://doi.org/10.1080/10538712.2015.1092006>
- Güner, O. (2017). Psychometric properties and normative values of early maladaptive schema questionnaires set for children and adolescents (SQS). *Clinical Psychology and Psychotherapy*, 24(2), 534-554. <https://doi.org/10.1002/cpp.2049>
- Heany, S., Groenewold, N. A., Uhlmann, A., & Dalvie, S. (2017). The neural correlates of Childhood Trauma Questionnaire scores in adults: A meta-analysis and review

- of functional magnetic resonance imaging studies. *Development and Psychopathology*, 30(4), 1-11. <https://doi.org/10.1017/S0954579417001717>
- Hawke, L. D., & Provencher, M. D. (2013). Early maladaptive schemas: Relationship with case complexity in mood and anxiety disorders. *Journal of Cognitive Psychotherapy*, 27(4), <https://doi.org/10.1891/0889-8391.27.4.359>
- Helms, J. E. (1989). Considering some methodological issues in racial identity counseling research. *The Counseling Psychologist*, 17(2), 227-252. <https://doi.org/10.1177/0011000089172002>
- Horwitz, A. G., Hill, R. M., & King, C. A. (2011). Specific coping behaviors in relation to adolescent depression and suicidal ideation. *Journal of Adolescence*, 34(5), 1077-1085. <https://doi.org/10.1016/j.adolescence.2010.10.004>
- Hosseinifard, S. M., & Kaviani, N. (2015). Comparing the early maladaptive schemas, attachment and coping styles in opium and stimulant drugs dependent men in Kerman, Iran. *Addiction & Health*, 7(1-2), 30. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4530191/>
- Hu, L., & Bentler, P. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Humphreys, K. L., LeMoult, J., Wear, J. G., Piersiak, H. A., Lee, A., & Gotlib, I. H. (2020). Child maltreatment and depression: A meta-analysis of studies using the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 102. Article 104361. <https://doi.org/10.1016/j.chiabu.2020.104361>

- Jones, L. M., Cross, T. P., Walsh, W. A., & Simone, M. (2005). Criminal investigations of child abuse: The research behind “best practices”. *Trauma, Violence, & Abuse*, 6(3), 254-268. <https://doi.org/10.1177/1524838005277440>
- Ke, T. & Barlas, J. (2020). Thinking about feeling: Using trait emotional intelligence in understanding the associations between early maladaptive schemas and coping styles. *Psychology and Psychotherapy: Theory, Research, and Practice*, 93(1), 1-20. <https://doi.org/10.1111/papt.12202>
- Kendrick, E. M. (2013). Diagram debate: The use of anatomical diagrams in child sexual abuse cases. *Liberty University Law Review*, 8(1), Article 5.
- Kriston, L., Schäfer, J., von Wolff, A., Härter, M., & Hölzel, L. P. (2012). The latent factor structure of young’s early maladaptive schemas: Are schemas organized into domains? *Journal of Clinical Psychology*, 68(6), 684–698. <https://doi.org/10.1002/jclp.21846>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Litman, J. A. (2006). The COPE inventory: Dimensionality and relationships with approach- and avoidance-motives and positive and negative traits. *Personality and Individual Differences*, 41(2), 273-284. <https://doi.org/10.1016/j.paid.2005.11.032>
- Loose, C., Meyer, F., & Pietrowsky, R. (2018). The Dusseldorf Illustrated Schema Questionnaire for Children (DISC). *Psicología: Reflexão e Crítica*, 31(1), 1-12. <https://doi.org/10.1186/s41155-018-0087-y>
- Louis, J. P., Wood, A. M., Lockwood, G., Ho, M.-H. R., & Ferguson, E. (2018). Positive clinical psychology and schema therapy (ST): The development of the Young

Positive Schema Questionnaire (YPSQ) to complement the Young Schema Questionnaire 3 Short Form (YSQ-S3). *Psychological Assessment*, 30(9), 1199-1213. <https://doi.org/10.1037/pas0000567>

Lumley, M. N., & Harkness, K. L. (2007). Specificity in the relations among childhood adversity, early maladaptive schemas, and symptom profiles in adolescent depression. *Cognitive Therapy and Research*, 31(5), 639–657. <https://doi.org/10.1007/s10608-006-9100-3>

McCarthy, M. C., & Lumley, M. N. (2012). Sources of emotional maltreatment and the differential development of unconditional and conditional schemas. *Cognitive Behaviour Therapy*, 41(4), 288–297. <https://doi.org/10.1080/16506073.2012.676669>

Mooneyham v. State, 915 So.2d 1102 (2005). <https://casetext.com/case/mooneyham-v-state-4>

Muris, P. (2006). Maladaptive schemas in non-clinical adolescents: Relations to perceived parental rearing behaviors, big five personality factors and psychopathological symptoms. *Clinical Psychology and Psychotherapy*, 13(6), 405-413. <https://doi.org/10.1002/cpp.506>

Nakamura, M. Y., & Orth, U. (2005). Acceptance as a coping reaction: Adaptive or not? *Swiss Journal of Psychology*, 64(4), 281-292. <https://doi.org/10.1024/1421-0185.64.4.281>

National Child Traumatic Stress Network, Physical Abuse Collaborative Group. (2009). *Child physical abuse fact sheet*. National Center for Child Traumatic Stress.

Nikmanesh, Z., Kazemi, Y., Khorsravi, M., & Bahonar, M. (2015). Comparing early maladaptive schemas and coping styles in drug dependent and non-dependent prisoners of Zahedan city, Iran. *Annals of Medical and Health Science Research*, 13(1), Article e62667.

https://applications.emro.who.int/imemrf/Ann_Mil_Health_Sci_Res/Ann_Mil_Health_Sci_Res_2015_13_1_26_31.pdf

Office of the Revisor of Statutes, Minnesota Legislature. (2021). *Actions for damages due to sexual abuse; Special provisions, Minnesota statutes*. § 541.073.

<https://www.revisor.mn.gov/statutes/cite/541.073>

Office of the Revisor of Statutes, Minnesota Legislature. (2021). *Definitions, Minnesota statutes*. § 260C.007. <https://www.revisor.mn.gov/statutes/cite/260C.007>

Office of the Revisor of Statutes, Minnesota Legislature. (2021). *Neglect or endangerment of child, Minnesota statutes*. § 609.378.

<https://www.revisor.mn.gov/statutes/cite/609.378>

Ortega, Y. M., Gomà-i-Freixanet, M., & Deu, A. F. (2016). The COPE-48: An adapted version of the COPE inventory for use in clinical settings. *Psychiatry Research*, 246, 808-814. <https://doi.org/10.1016/j.psychres.2016.10.031>

Phelps, S. B., & Jarvis, P. A. (1994) Coping in adolescence: Empirical evidence for a theoretically based approach to assessing coping. *Journal of Youth and Adolescence*, 23(3), 359-371. <https://doi.org/10.1007/BF01536724>

Rezaei, M., Ghazanfari, F., & Rezaee, F. (2016). The role of childhood trauma, early maladaptive schemas, emotional schemas and experimental avoidance on

depression: A structural equation modeling. *Psychiatry Research*, 246, 407–414.

<https://doi.org/10.1016/j.psychres.2016.10.037>

Rijkeboer, M. M., & de Boo, G. M. (2010). Early maladaptive schemas in children:

Development and validation of the schema inventory for children. *Journal of Behavior Therapy and Experimental Psychiatry*, 41(2), 102-109.

<https://doi.org/10.1016/j.jbtep.2009.11.001>

Saywitz, K.J., Lyon, T.D., & Goodman, G.S. (2011). Interviewing children. In J. E. B.

Meyers (Ed.). *The APSAC Handbook on Child Maltreatment*. Sage, pp. 337–360.

Schmidt, N. B., Joiner, T. E., Young, J. E., & Telch, M. J. (1995). The schema

questionnaire: Investigation of psychometric properties and the hierarchical structure of a measure of maladaptive schemas. *Cognitive Therapy and Research*, 19(3), 295-231. <https://doi.org/10.1007/BF02230402>

Soper, D. (2022). *Significance of the difference between two correlations calculator*.

<https://www.danielsoper.com/statcalc/calculator.aspx?id=104>

Stallard, P. (2007). Early maladaptive schemas in children: Stability and differences

between a community and a clinic referred sample. *Clinical psychology and psychotherapy*, 14(1), 10-18. <https://doi.org/10.1002/cpp.511>

Statistica (2022). *Child abuse in the U.S. - Number of victims 2020, by*

perpetrator relationship. <https://www.statista.com/statistics/254893/child-abuse-in-the-us-by-perpetrator-relationship/>

Stemler, S. E. (2004). A comparison of consensus, consistency, and measurement

approaches to estimating interrater reliability. *Practical Assessment, Research, and Evaluation*, 9, Article 4. <https://doi.org/10.7275/96jp-xz07>

- Strathearn, L., Giannotti, M., Mills, R., Kisely, S., Najman, J., & Abajobir, A. (2020). Long-term cognitive, psychological, and health outcomes associated with child abuse and neglect. *Pediatrics*, *146*(4), e20200438. <https://doi.org/10.1542/peds.2020-0438>
- Stallard, P., & Rayner, H. (2005). The development and preliminary evaluation of a schema questionnaire for children (SQC). *Behavioural and Cognitive Psychotherapy*, *33*(2), 217-224. <https://doi.org/10.1017/S1352465804001912>
- Van Vlierberghe, L., Braet, C., Bosmans, G., Rosseel, Y., & Bögels, S. (2010). Maladaptive schemas and psychopathology in adolescence: On the utility of Young's schema theory in youth. *Cognitive Therapy Research*, *34*(4), 316-332. <https://doi.org/10.1007/s10608-009-9283-5>
- van Wijk-Herbrink, M. F., Bernstein, D. P., Broers, N. J., Roelofs, J., Rijkeboer, M. M., & Arntz, A. (2018). Internalizing and externalizing behaviors share a common predictor: The effects of early maladaptive schemas are mediated by coping responses and schema modes. *Journal of Abnormal Child Psychology*, *46*(5), 907-920. <https://doi.org/10.1007/s10802-017-0386-2>
- Voderholzer, U., Schwartz, C., Thiel, N., Kuelz, A. K., Hartmann, A., Scheidt, C. E., Schlegl, S., & Zeeck, A. (2014). A comparison of schemas, schema modes and childhood traumas in obsessive-compulsive disorder, chronic pain disorder and eating disorders. *Psychopathology*, *47*(1), 24– 31. <https://doi.org/10.1159/000348484>
- Washburn-Ormachea, J. M., Hillman, S. B., & Sawilowsky, S. S. (2004). Gender and gender-role orientation differences on adolescents' coping with peer stressors.

Journal of Youth and Adolescents, 33(1), 31-40.

<https://doi.org/10.1023/A:1027330213113>

Wright, M. O., Crawford, E. & Del Castillo, D. (2009). Childhood emotional maltreatment and later psychological distress among college students: The mediating role of maladaptive schemas. *Child Abuse and Neglect*, 33(1), 59-68.

<https://doi.org/10.1016/j.chiabu.2008.12.007>

Young, J. E. (1990). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota, FL: Professional Resource Exchange, Inc.

Young, J. E. (2006). *Young Schema Questionnaire-3*. Cognitive Therapy Center.

Young, J. E. (2005). *Young Schema Questionnaire-Short Form 3 (YSQ-S3)*. Cognitive Therapy Center.

Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. Guilford Press.

Table 1. *Participant Demographics*

	<i>n</i>	%
Gender		
Female	64	64
Male	30	30
Transgender/Non-Binary	6	6
Race		
White	70	70
American Indian/Alaska Native	16	16
Bi-Racial/Multi-Racial	7	7
Black/African American	7	7

Note. $N = 100$. Participant demographics were classified by the child advocacy center.

Table 2. *Case Descriptives*

	<i>n</i>	%
Abuse Type(s)		
Sexual Abuse	45	45
Multiple Types of Abuse	34	34
Physical Abuse	12	12
Witness/Exposure to Violence, Drugs, Crimes, or Pornography	7	7
Emotional Abuse	2	2
Abuse Frequency		
More Than Once	65	65
Once	35	35
Relationship to Offender		
Someone in the Family	72	72
Someone Outside of the Family	26	26
Someone in the Family and Someone Outside of the Family	2	2

Note. $N = 100$.

Table 3. *Early Maladaptive Schemas Descriptives*

	<i>n</i>	<i>M</i>	<i>SD</i>
Impaired Autonomy and Performance	97	3.36	1.35
Vulnerability	69	3.91	1.71
Subjugation	76	3.74	1.96
Abandonment and Instability	73	3.66	1.87
Enmeshment	42	3.02	1.94
Failure	32	2.84	1.85
Dependence and Incompetence	56	1.59	1.04
Disconnection and Rejection	100	3.26	1.44
Mistrust and Abuse	87	4.02	1.82
Defectiveness and Shame	58	3.69	1.79
Emotional Deprivation	71	3.56	2.01
Emotional Inhibition	66	2.70	1.73
Social Isolation and Alienation	52	2.63	1.75
Negativity and Pessimism	52	2.62	1.66
Excessive Responsibility and Standards	78	3.02	1.66
Self-Sacrifice	49	3.39	1.84
Unrelenting Standards	31	2.55	1.93
Punitiveness	53	2.47	1.72
Impaired Limits	50	2.21	1.57
Approval-Seeking	32	2.41	1.79
Insufficient Self-Control	30	1.80	1.30
Entitlement and Grandiosity	19	1.42	1.17

Note. $N = 100$. Early maladaptive schemas were measured with the Dusseldorf Illustrated Schema Questionnaire for Children (Loose et al., 2018), which was adapted from the

Young Schema Questionnaire - Short Form 3 (Young, 2005), 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*.

Table 4. *Coping Responses Descriptives*

	<i>n</i>	<i>M</i>	<i>SD</i>
Socially-Supported Coping	94	2.41	1.00
Emotional Social Support	72	2.53	1.18
Focus on Venting of Emotions	78	2.35	1.16
Instrumental Social Support	65	2.17	1.13
Self-Sufficient Coping	95	2.23	0.74
Acceptance	82	2.85	1.12
Restraint	47	2.15	1.22
Planning	33	2.15	1.20
Humor	44	2.02	1.15
Active Coping	67	1.93	0.88
Positive Reinterpretation and Growth	55	1.84	1.00
Suppression of Competing Activities	40	1.78	1.19
Religious Coping	16	1.63	1.09
Avoidant Coping	88	2.07	0.88
Mental Disengagement	69	2.43	1.21
Denial	74	2.03	1.22
Behavioral Disengagement	40	1.83	1.11
Substance Use	30	1.50	1.04

Note. $N = 100$. Coping was measured with the COPE Inventory (Carver et al., 1989), 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*.

Table 5. *Parameter Estimates of EMS Domains on Coping Mechanisms*

Table 5
Parameter Estimates of EMS Domains on Coping Mechanisms

Schema	Socially-Supported Coping					Self-Sufficient Coping					Avoidant Coping				
	B	SE	p	95% CI	η^2	B	SE	p	95% CI	η^2	B	SE	p	95% CI	η^2
Impaired Autonomy and Performance	.15	.10	.14	[-.05, .34]	.02	.04	.07	.61	[-.11, .19]	.00	.04	.09	.68	[-.14, .22]	.00
Disconnection and Rejection	-.19	.10	.06	[-.39, .01]	.04	.06	.08	.47	[-.10, .21]	.01	.18	.09	.06	[-.01, .36]	.04
Excessive Responsibility and Standards	.10	.06	.10	[-.02, .22]	.03	.12	.05	.01**	[.03, .21]	.07	-.13	.06	.03*	[-.24, -.02]	.05
Impaired Limits	.10	.07	.15	[-.04, .25]	.02	-.10	.05	.06	[-.21, .00]	.04	.00	.07	.97	[-.14, .13]	.00

Note. $N = 100$. Early maladaptive schemas were measured with the Dusseldorf Illustrated Schema Questionnaire for Children (Loose et al., 2018), which was adapted from the Young Schema Questionnaire - Short Form 3 (Young, 2005), 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*; Coping was measured with the COPE Inventory (Carver et al., 1989), 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*; * $p < .05$. ** $p < .01$.

Table 6. Tests of Between-Subjects Effects of Early Maladaptive Schema (EMS) Domains on Coping Mechanisms

EMS	Socially-Supported Coping			Self-Sufficient Coping			Avoidant Coping		
	<i>F</i>	<i>p</i>	η^2	<i>F</i>	<i>p</i>	η^2	<i>F</i>	<i>p</i>	η^2
Impaired Autonomy and Performance	2.21	.14	.02	0.26	.61	.00	0.17	.68	.00
Disconnection and Rejection	3.53	.06	.04	0.53	.47	.01	3.55	.06	.04
Excessive Responsibility and Standards	2.70	.10	.02	7.07	.01**	.07	5.18	.03*	.05
Impaired Limits	2.11	.15	.02	3.75	.06	.04	0.00	.97	.00

Note. $N = 100$. Early maladaptive schemas were measured with the Dusseldorf Illustrated Schema Questionnaire for Children (Loose et al., 2018), which was adapted from the Young Schema Questionnaire - Short Form 3 (Young, 2005), 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*; Coping was measured with the COPE Inventory (Carver et al., 1989), 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*; * $p < .05$. ** $p < .01$.

Table 7. Representative Quotes Of EMS And Coping Responses

Mistrust and Abuse	<p>“My home isn't safe for me, but I can't say anything because my siblings can't be away from my parents, or they get sick.”</p>
	<p>The child “felt until recently that emotional abuse and physical abuse was normal in families.”</p>
	<p>“I don't feel safe at home but everything I do, I do for my siblings. So it doesn't matter what happens to me.”</p>
	<p>“The child has never had a stable living environment and has had to be aware he could be abused at any time throughout his childhood.”</p>
Vulnerability	<p>“With his experience, saying ‘stop’ would not have an effect on what was happening, so he wouldn't...say anything.”</p>
	<p>The child “would let the offender do whatever because his experience with telling people to stop did not mean anything so they would never stop.”</p>
	<p>“I should've never told them because I'm super scared now.”</p>
Subjugation	<p>The child “is used to trying to be good in order to avoid punishment.”</p>
	<p>The child “was worried about the offender losing their job and their kids over this. Did not want anything to happen because they would feel bad about it.” The child stated “because I did not want [them] to lose [their] job or [their] kids.”</p>
	<p>“She ‘didn't want to say anything because he's older and stronger and could hurt me easily,’ referring to an incident where a older boy raped her.”</p>
Defectiveness and Shame	<p>“She feels like a bother when she complains about her fathers weird behavior because she convinces herself she's just being dramatic.”</p>
	<p>“I felt disgusting after, like I was a horrible person, like it's my fault.”</p>
	<p>“The child expressed a lot of shame around the abuse, she asked in the interview, ‘Is my mom going to see this?’ ‘I don't want anyone to see this’ ‘I don't like talking about this stuff.’”</p>
Abandonment	<p>“She feels that her dad is unstable and unpredictable especially</p>

and Instability	when he's drinking, which is all the time.”
	“The child has had 2 failed adoptions and has been in a foster home for a long time. From this she seems to have an unstable view of what having a home and family is like.”
Acceptance	“She accepted that this has happened even if she doesn't fully understand why it's happened.”
	“The child coming to talk at First Witness was kind of her first step in accepting that her brother did a bad thing and should have consequences.”
	“The child was very accepting of the abuse that had happened to him and didn't try to hide or deny it.”
Emotional Social Support	“She talked to friends who have experienced similar things and now she talks to her therapist about it.”
	The child “could name several people he felt safe with. He said that there are always [<i>sic</i>] people he can trust and named plenty of safe people.”
	“She talked to friends who have experienced similar things and now she talks to her therapist about it.”
	“She talked about venting with a friend which helped her disclose what had happened to her.”
Mental Disengagement	“Cutting made the pain and bad thoughts go away.”
	The child “kind of chose to block it out a little bit.”
	The child “tried to distract herself from it for a few years.”
	“She said that her brain has a way of blocking out things that are perceived as uncomfortable or traumatic.”
Focus on Venting of Emotions	“She talked about venting with a friend which helped her disclose what happened to her.”
	The child “would cry in his pillow (at home) to let out some emotions, can talk about what happened to some extent.”
	“It seemed to be therapeutic for the child to let out what had happened to her.”

Instrumental The child “said friends are ‘always there for me’ and that she
Social Support ‘can rely on them.’”

The child “told his teacher what happened and was able to get
the help he needed from her.”

“She reached out to her mom for help.”

Note. Pronouns refer to the child interviewed unless otherwise indicated. Quotes were gathered from those directly made by children and by observations made by interviewers. Interviewers provided quotes either in the first or third person in the perspective of the child.

Table 8. *Early Maladaptive Schemas (EMS) and Coping Responses Among White Children and BIPOC Children*

	White		BIPOC		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
EMS							
Disconnection and Rejection	3.05	1.37	3.77	1.51	-2.35	.02*	-0.51
Impaired Autonomy and Performance	3.19	1.46	3.42	1.45	-0.73	.47	-0.16
Excessive Responsibility and Standards	2.45	1.93	2.13	1.94	0.76	.45	0.17
Impaired Limits	1.13	1.52	1.05	1.70	0.24	.81	0.05
Coping Responses							
Self-Sufficient Coping	2.21	0.83	1.91	0.93	1.61	.11	0.35
Socially-Supported Coping	2.39	1.18	1.96	0.95	1.78	.08	-0.14
Avoidant Coping	1.78	1.09	1.93	1.02	-0.66	.51	0.39

Note. $N = 100$. BIPOC = Black, Indigenous, and People of Color. Early maladaptive schemas were measured with the Dusseldorf Illustrated Schema Questionnaire for Children (Loose et al., 2018), which was adapted from the Young Schema Questionnaire - Short Form 3 (Young, 2005), 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*; Coping was measured with the COPE Inventory (Carver et al., 1989), 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*; Positive *ds* indicate higher average ratings among White children than BIPOC children, while negative *ds* indicate higher average ratings among BIPOC children than White children. * $p < .05$.

Table 9. *Early Maladaptive Schemas (EMS) and Coping Responses Reported by Children Who Experienced Various Forms of Abuse*

	Sexual Abuse	Physical Abuse	Emotional Abuse	Witness / Exposure	Multiple Forms	<i>F</i> (4, 95)	η^2
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
EMS							
Disconnection and Rejection	2.85 (1.30)	3.56 (1.78)	2.85 (0.49)	2.26 (0.86)	3.94 (1.36)	4.34**	.16
Impaired Autonomy and Performance	2.81 (1.53)	3.69 (1.48)	3.17 (0.24)	2.83 (1.11)	3.78 (1.27)	2.74*	.10
Excessive Responsibility and Standards	2.12 (1.88)	2.08 (1.99)	2.91 (0.82)	2.24 (1.40)	2.75 (2.12)	0.63	.03
Impaired Limits	1.32 (1.82)	1.21 (1.78)	0.50 (0.71)	0.71 (1.11)	0.90 (1.23)	0.54	.02
Coping Responses							
Self-Sufficient Coping	2.16 (0.89)	2.08 (0.78)	2.40 (0.38)	1.86 (0.60)	2.13 (0.97)	0.23	.01
Socially-Supported Coping	2.34 (1.07)	1.46 (0.79)	3.50 (0.24)	2.00 (1.16)	2.43 (1.21)	2.63*	.10
Avoidant Coping	1.66 (1.11)	1.79 (1.01)	2.38 (0.18)	2.21 (1.09)	1.92 (1.04)	0.72	.03

Note. $N = 100$. Early maladaptive schemas were measured with the Dusseldorf Illustrated Schema Questionnaire for Children (Loose et al., 2018), which was adapted from the Young Schema Questionnaire - Short Form 3 (Young, 2005), 1 = *completely untrue of the child*, 2 = *mostly untrue of the child*, 3 = *slightly more true than untrue of the child*, 4 = *moderately true of the child*, 5 = *mostly true of the child*, and 6 = *completely true of the child*; Coping was measured with the COPE Inventory (Carver et al., 1989), 1 = *The child usually didn't do this at all*, 2 = *The child usually did this a bit*, 3 = *The child usually did this a medium amount*, and 4 = *The child usually did this a lot*; * $p < .05$. ** $p < .01$.

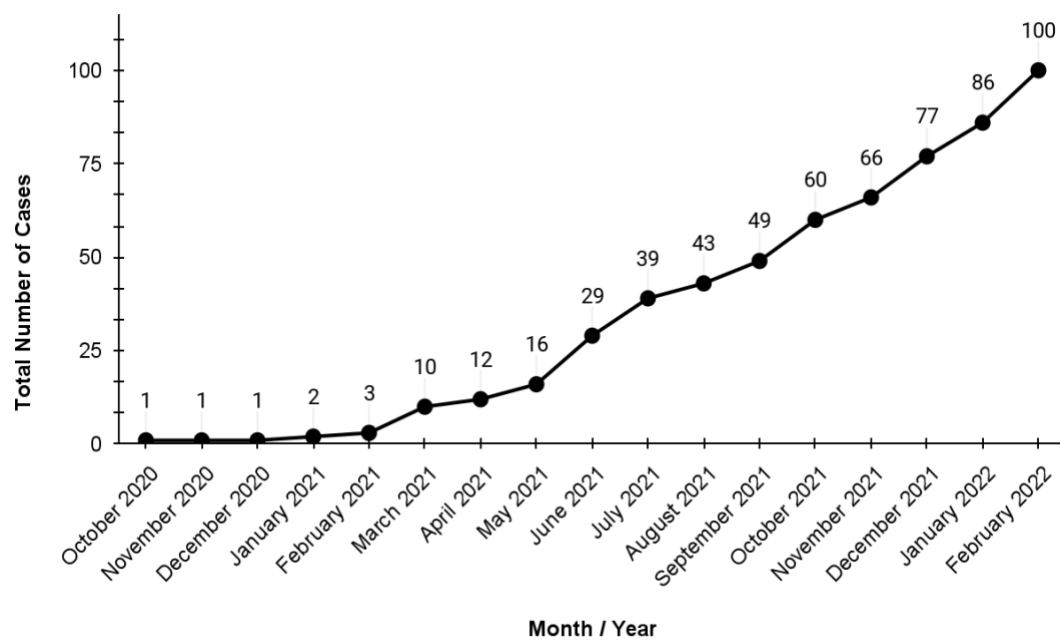
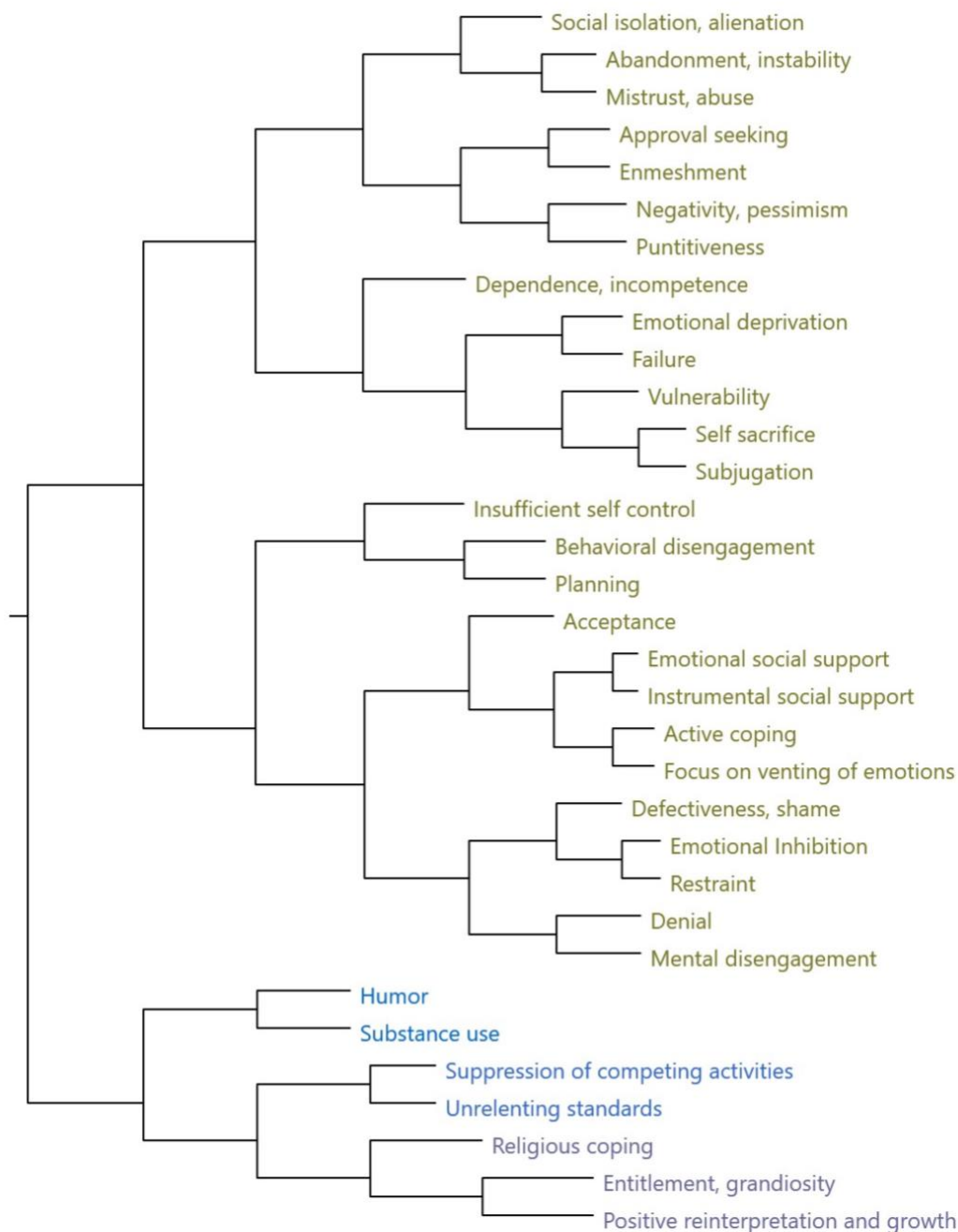
Figure 1. *Cumulative Sum Chart of Number of Cases*

Figure 2. *Tree Diagram of Codes Clustered by Word Similarity*



Note. Word similarity was examined within each code noted in the tree diagram. Codes describe early maladaptive schemas (Loose et al., 2018; Young, 2005) and coping styles (Carver et al., 1989). Different colors represent each of the four clusters.

Appendix A

Case No: _____

EARLY MALADAPTIVE SCHEMAS

1 = Completely untrue of the child, 2 = Mostly untrue of the child, 3 = Slightly more true than untrue of the child, 4 = Moderately true of the child, 5 = Mostly true of the child, 6 = Completely true of the child, NM = Not mentioned in the interview

Mistrust/abuse 1 2 3 4 5 6 NM _____

Abandonment/instability 1 2 3 4 5 6 NM _____

Emotional deprivation 1 2 3 4 5 6 NM _____

Defectiveness/shame 1 2 3 4 5 6 NM _____

Social isolation/alienation 1 2 3 4 5 6 NM _____

Dependence/incompetence 1 2 3 4 5 6 NM _____

Vulnerability 1 2 3 4 5 6 NM _____

Enmeshment 1 2 3 4 5 6 NM _____

Failure 1 2 3 4 5 6 NM _____

Entitlement/grandiosity 1 2 3 4 5 6 NM _____

Insufficient self-control 1 2 3 4 5 6 NM _____

Subjugation 1 2 3 4 5 6 NM _____

Self-sacrifice 1 2 3 4 5 6 NM _____

Approval-seeking 1 2 3 4 5 6 NM _____

Negativity/pessimism 1 2 3 4 5 6 NM _____

Emotional inhibition 1 2 3 4 5 6 NM _____

Punitiveness 1 2 3 4 5 6 NM _____

Unrelenting standards 1 2 3 4 5 6 NM _____

Other notes: _____

COPING RESPONSES

1 = The child usually didn't do this at all, 2 = The child usually did this a bit, 3 = The child usually did this a medium amount, 4 = The child usually did this a lot, NM = Not mentioned in the interview

Positive reinterpretation and growth 1 2 3 4 NM _____

Mental disengagement 1 2 3 4 NM _____

Focus on venting of emotions 1 2 3 4 NM _____

Instrumental social support 1 2 3 4 NM _____

Active coping 1 2 3 4 NM _____

Denial 1 2 3 4 NM _____

Religious coping 1 2 3 4 NM _____

Humor 1 2 3 4 NM _____

Behavioral disengagement 1 2 3 4 NM _____

Restraint 1 2 3 4 NM _____

Emotional social support 1 2 3 4 NM _____

Substance use 1 2 3 4 NM _____

Acceptance 1 2 3 4 NM _____

Suppression of competing activities 1 2 3 4 NM _____

Planning 1 2 3 4 NM _____

Other notes: _____

Appendix B

Early Maladaptive Schemas Definitions

The purpose of this section is to explain the various (18) early maladaptive schemas as defined by Young and colleagues (2003). Early maladaptive schemas are dysfunctional emotional and cognitive themes regarding oneself and their environment that develop early in life - primarily through relationships with significant caregivers (Young et al., 2003).

Rate the accuracy of the following schemas on a six-point scale ranging from 1 (*Completely untrue of the child*) to 6 (*Describes the child perfectly*). In the blank box underneath each schema, please type in information (direct quote, behavioral observation, etc.) that exemplifies that schema.

Mistrust/abuse

The expectation that others will hurt, abuse, humiliate, cheat, lie, manipulate, or take advantage. Usually involves the perception that the harm is intentional or the result of unjustified and extreme negligence.

- I think that my friends will betray me sooner or later.
- I think that other people take advantage of me.

Abandonment/instability

The perceived instability or unreliability of those available for support and connection. Involves the sense that significant others will not be able to continue providing emotional support, connection, strength, or practical protection because they are emotionally unstable and unpredictable, unreliable, or present only erratically; because they will die imminently; or because they will abandon the individual in favor of someone better.

- I'm sure that my family and friends will always be there for me.
- I believe that my family and friends will stay by my side in every situation.

Emotional deprivation

The expectation that one's desire for a normal degree of emotional support will not be adequately met by others. The three major forms are deprivation of nurturance, empathy, and protection.

- I don't get any attention or love.
- No one really takes time for me.

Defectiveness/shame

The feeling that one is defective, bad, unwanted, inferior, or invalid in important respects or that one would be unlovable to significant others if exposed. Many involve hypersensitivity to criticism, rejection, and blame; self-consciousness, comparisons, and insecurity around others.

- I cannot understand how someone can like me.
- I am not worth being loved.

Social isolation/alienation

The feeling that one is isolated from the rest of the world, different from other people, and/or not part of any group of community.

- I do not like spending time with other people.
- I prefer to stay on my own, rather than joining a group.

Dependence/incompetence

Belief that one is unable to handle one's everyday responsibilities in a competent manner, without considerable help from others. Often presents as helplessness.

- I need a lot of support in my daily routine. Otherwise, I become overtaxed.
- Without the help of my parents I can hardly do anything.

Vulnerability

Exaggerated fear that imminent catastrophe will strike at any time and that one will be unable to prevent it. Fears focus on one or most of the following (a) medical catastrophes, (b) emotional catastrophes, and (c) external catastrophes.

- I have the feeling that any moment could turn into a catastrophe.
- I am afraid that something bad might happen.

Enmeshment

Excessive emotional involvement and closeness with one or more significant others (often parents) at the expense of full individuation or normal social development. Often involves the belief that at least one of the enmeshed individuals cannot survive or be happy without the constant support of the other. May also include feelings of being smothered by or fused with others or insufficient individual identity. Often experienced as a feeling of emptiness and founding, having no direction, or in extreme cases questioning one's existence.

- When my parents have problems, I instantly feel bad.
- I feel responsible for the lives of my parents.

Failure

The belief that one has failed, will inevitably fail, or is fundamentally inadequate relative to one's peers in areas of achievement (school, career, sports, etc.). Often involves beliefs that one is stupid, inept, untalented, lower in status, less successful than others, and so forth.

- No matter what I do at school, others are always better than me.
- My performance is poor, and it will always remain so.

Entitlement/grandiosity

The belief that one is superior to other people, entitled to special rights and privileges, or not bound by the rules of reciprocity that guide normal social interaction.

- Others call me the know-it-all.
- Others should do what I want.

Insufficient self-control

Pervasive difficulty or refusal to exercise sufficient self-control and frustration tolerance to achieve one's personal goals or to restrain the excessive expression of one's emotions.

- I get upset really quickly if something takes longer than intended.
- I cannot stand waiting for something.

Subjugation

Excessive surrendering of control to others because one feels coerced - submitting in order to avoid anger, retaliation, or abandonment. The two major forms of subjugation are subjugation of needs and emotions. Frequently presents as excessive compliance, combined with hypersensitivity to feeling trapped.

- I prefer letting other people decide because I do not want to get into conflict.
- The opinion of others is more important to me than my own.

Self-sacrifice

Excessive focus on voluntarily meeting the needs of others in daily situations at the expense of one's own gratification. The most often reasons are: to prevent causing pain to others, to avoid guilt from feeling selfish, or to maintain the connection with others perceived as needy.

- If you ask me for help, I'll do anything, even if I'm incapable of doing it.
- I have no time for myself because I take care of others all the time.

Approval-seeking

Excessive emphasis on gaining approval, recognition, or attending from other people or on fitting in at the expense of developing a secure and true sense of self.

- It's important for me that people around me tell me how great I am. Otherwise, I don't feel good.
- Owning modern clothes and knowing cool people gives me the feeling of being special.

Negativity/pessimism

A pervasive lifelong focus on the negative aspects of life (pain, death, loss, disappointment, conflict, guilt, resentment, unsolved problems, potential mistakes, betrayal, things that could go wrong, etc.) while minimizing or neglecting the positive or optimistic aspects.

- Most of the things in my life are bad or will turn out badly.
- I'm not good at making decisions because I'm scared of the consequences.

Emotional inhibition

The excessive inhibition of spontaneous action, feeling, or communication, usually to avoid disapproval by others, feelings of shame, or losing control of one's impulses. The most common areas of inhibition involve (a) inhibition of anger and aggression, (b) inhibition of positive impulses (e.g., joy, affection, sexual excitement, play), (c) difficulty expressing vulnerability or communicating freely about one's feelings, needs, and so forth, and (d) excessive emphasis on rationality while disregarding emotions.

- Showing feelings is totally embarrassing.
- Others are not supposed to know when I'm anxious, angry, or sad.

Punitiveness

The belief that people should be harshly punished for making mistakes. Usually includes difficulty forgiving mistakes in oneself or others because of reluctance to consider extenuating circumstances, allow for human imperfection, or empathize with feelings.

- If I make mistakes, I deserve to be punished.
- There must be some kind of punishment! This applies to all those who make mistakes, it does not matter whether it is done intentionally or unintentionally.

Unrelenting standards

The underlying belief that one must strive to meet very high internalized standards of behavior and performance, usually to avoid criticism.

- I put myself under a lot of pressure to show me and others how good I am.
- The most important thing in my life is to be good at school.

Coping Responses Definitions

The purpose of this section is to explain the various (15) coping responses as identified by Carver and colleagues (1989).

Indicate what the child generally did and felt when they experienced the stressful events mentioned in the interview. Different events bring out somewhat different responses, but think about what the child usually did when they experienced those events. In the blank box underneath each coping response, please type in information (direct quote, behavioral observation, etc.) that exemplifies each coping response.

Positive reinterpretation and growth

Positive reinterpretation and growth is construing a stressful transaction in positive terms.

- I try to grow as a person as a result of the experience.
- I try to see it in a different light to make it seem more positive.
- I look for something good in what is happening.
- I learn something from the experience.

Mental disengagement

Activities that serve to distract the person from thinking about the behavioral dimension or goal with which the stressor is interfering.

- I turn to work or other substitute activities to take my mind off things.
- I daydream about things other than this.
- I sleep more than usual.
- I go to movies or watch TV to think about it less.

Focus on venting of emotions

The tendency to focus on whatever distress or upset one is experiencing and to ventilate those feelings.

- I get upset and let my emotions out.
- I get upset and am really aware of it.
- I let my feelings out.
- I feel a lot of emotional distress and I find myself expressing those feelings a lot.

Instrumental social support

Seeking advice, assistance, or information.

- I try to get advice from someone about what to do.
- I talk to someone to find out more about the situation.
- I talk to someone who could do something concrete about the problem.
- I ask people who have had similar experiences what they did.

Active coping

The process of taking active steps to try to remove or circumvent the stressor or to ameliorate its effects. Active coping includes initiating direct action, increasing one's efforts, and trying to execute a coping attempt in stepwise fashion.

- I concentrate on my efforts on doing something about it.
- I take additional action to try to get rid of the problem.
- I take direct action to get around the problem.
- I do what has to be done, one step at a time.

Denial

Minimizing distress, refusal to believe that the stressor exists, or trying to act as though the stressor is not real.

- I say to myself "this isn't real."
- I refuse to believe that it has happened.
- I pretend that it hasn't really happened.
- I act as though it hasn't even happened.

Religious coping

Turning to religion in times of stress.

- I put my trust in God.
- I seek God's help.
- I try to find comfort in my religion.
- I pray more than usual.

Humor

Using humor, jokes, and making fun to deal with stressors.

- I laugh about the situation.
- I make jokes about it.
- I kid around about it.
- I make fun of the situation.

Behavioral disengagement

Reducing one's effort to deal with the stressor, even giving up the attempt to attain goals with which the stressor is interfering.

- I admit to myself that I can't deal with it and quit trying.
- I just give up trying to reach my goal.
- I give up the attempt to get what I want.
- I reduce the amount of effort I'm putting into solving the problem.

Restraint

Waiting until an appropriate opportunity to act presents itself, holding oneself back, and not acting prematurely.

- I restrain myself from doing anything too quickly.
- I hold off doing anything about it until the situation permits.
- I make sure not to make matters worse by acting too soon.
- I force myself to wait for the right time to do something.

Emotional social support

Getting moral support, sympathy, or understanding.

- I discuss my feelings with someone.
- I try to get emotional support from friends or relatives.
- I get sympathy and understanding from someone.
- I talk to someone about how I feel.

Substance use

Using alcohol or other drugs to feel better/cope with the stressor.

- I use alcohol or drugs to make myself feel better.
- I try to lose myself for a while by drinking alcohol or taking drugs.
- I drink alcohol or take drugs in order to think about it less.
- I use alcohol or drugs to help me get through it.

Acceptance

The opposite of denial; acceptance of the reality of a stressful situation.

- I get used to the idea that it happened.
- I accept that this has happened and that it can't be changed.
- I accept the reality of the fact that it happened.
- I learned to live with it.

Suppression of competing activities

Putting other projects aside, trying to avoid becoming distracted by other events, even letting other things slide, if necessary, in order to deal with the stressor.

- I keep myself from getting distracted by other thoughts or activities.
- I focus on dealing with this problem, and if it is necessary, let other things slide a little.
- I try hard to prevent other things from interfering with my efforts at dealing with this.

- I put aside other activities in order to concentrate on this.

Planning

Thinking about how to cope with a stressor. Planning involves coming up with action strategies, thinking about what steps to take and how best to handle the problem.

- I make a plan of action.
- I try to come up with a strategy about what to do.
- I think about how I might best handle the problem.
- I think hard about what steps to take.

Appendix C

Codebook

Examples are deductive and inductive *in vivo*. Square brackets indicate *in vivo* examples that arose after the initial interrater reliability check and discussion of coding.

Mistrust/abuse

Examples: abuse, cheat, exploitation, humiliate, hurt, lie, manipulate, sexual abuse, take advantage, [it will happen again, never changes, unsafe]

Counterexamples: trust, safety, honest

Abandonment/instability

Examples: abandon, erratic, lacking connection, unpredictable, unreliable, unstable, [expect to be alone, loss of family, never shows up, no one loves me, on my own, self-reliance]

Counterexamples: supportive, supported, stable, reliable, connected, predictable, can talk to, can rely on, expect support, reach out to

Emotional deprivation

Examples: deprived, deprived of empathy, deprived of nurturance, unprotected, [expected to stay silent, ignored, no one cares, no one to talk to, they don't care]

Counterexamples: nurtured, empathized with, protected

Defectiveness/shame

Examples: bad, blame, compare, criticism, defective, guilt, hypersensitivity, inferior, insecure, invalid, rejection, remorse, self-conscious, unwanted, [I deserve it, internalized shame, self-deprecating, suicidal ideation, self-harm ideation]

Counterexamples: accepted, wanted, valid, self-esteem, confidence, secure

Social isolation/alienation

Examples: alienated, different from, isolated, separated, [alone, betrayal, bullied, no friends, no one to reach out in crisis, only internet friends, ostracized, peer rejection]

Counterexamples: connected, supported, loyalty, friendship, inclusiveness, community, family, support network

Dependence/incompetence

Examples: helplessness, helpless, incapable, unable, [can't be alone, could not fight/resist, smothered]

Counterexamples: capable, able, useful

Vulnerability

Examples: defenselessness, susceptibility, unable to prevent it, [fear, I don't feel safe, it will happen again, unsafe]

Counterexamples: protected, guarded, safe, secure, strong, closed, insusceptible

Enmeshment

Examples: emptiness, enmeshment, excessive closeness, excessive emotional involvement, fused, no direction, smothered, [emotional abuse, feels controlled, incapable of making independent decisions]

Counterexamples: independent, secure, identity, appropriate parental interactions

Failure

Examples: fail, inadequate, inept, less than, lower status, stupid, unsuccessful, untalented, [I deserved it, I'll never be able to, it was my fault, should have done differently, should just quit/drop out]

Counterexamples: succeed, achievement, adequate, talented, high status

Entitlement/grandiosity

Examples: entitled, privileged, special rules, superior

Counterexamples: reciprocal, inferior, normal

Insufficient self-control

Examples: difficult, lack of restraint, low self-control, refusal, [breaking down, easily frustrated, engaging in risky behavior, fights, impulsiveness, lashing out, low tolerance, meltdowns, tantrums]

Counterexamples: restraint, self-control, frustration tolerance, distress tolerance

Subjugation

Examples: coerced, compliance, hypersensitivity, submitting, surrender, trapped, [avoidance, didn't want to upset..., I did it so person would/wouldn't..., I didn't say so, no other options, so they didn't leave me]

Counterexamples: control, choice, defend, hyposensitive, independence, willful

Self-sacrifice

Examples: avoid guilt, avoid selfishness, expense of oneself, people pleasing, prevent causing pain, [avoidance, avoidant of conflict, dependent, extreme efforts to not upset someone, it was easier to submit than to resist, they need..., walking on eggshells]

Counterexamples: independent, selfish

Approval-seeking

Examples: attention seeking, approval seeking, fitting in, gaining approval, insecure, recognition seeking, validation seeking

Counterexamples: approval, authentic, independent, secure, true sense of self

Negativity/pessimism

Examples: disappointment, negativity, minimizing positives, neglecting positives, potential mistakes, things that could go wrong, unsolved problems, [always wrong, antagonism, deprivation, distrust, fixed mindset, hesitation, it will always be this way, never changes, suspicion]

Counterexamples: growth mindset, happy, optimistic, positive

Emotional inhibition

Examples: control, difficult expressing, disregard emotions, inhibition of action, feeling, or communication, rationality, restraint, shame, [barrier, bottling emotion, hiding emotions, nonverbal, reserved, self-conscious, shutting down, suppressing reactions, withdrawal from others]

Counterexamples: acting, emotional expression, expressing freely, feeling communication, open communication, positive impulses

Punitiveness

Examples: difficulty forgiving, discipline, harsh, lack of empathy, punishment, [corrective, internalized shame, I deserve it, reluctant, wishing harm on others, wishing harm on self]

Counterexamples: considering, fair, forgiveness, understanding

Unrelenting standards

Examples: behavioral outcomes, criticisms, high standards, perfection, performance-driven, unrelenting, [no choice, perform good, pressure, rules]

Counterexamples: acceptable, good enough, imperfect

Planning

Examples: actionable, anticipate, plan, predict, prepare, strategies, steps, thinking, [next time I see {perpetrator}..., thinking about triggers, wishing I could...]

Counterexamples: ill-planned, impulsive, spontaneous

Active coping

Examples: action, active, ameliorate, direct, effort, remove, stepwise, trying, [avoiding triggers, coping mechanisms, coping skills]

Counterexamples: avoidance, continue old patterns, ignore, passive

Positive reinterpretation and growth

Examples: growth, optimistic, positive, [learning, stronger, won't happen again]

Counterexamples: inhibited, negative, pessimistic, stagnation, stationary

Suppression of competing activities

Examples: avoid distraction, let go, let slide, put aside, [compartmentalize]

Counterexamples: distraction, hold on

Acceptance

Examples: accept, allow, acknowledge, approve, comply, recognize, [move on, it happened, I don't hide it, understands it was not okay]

Counterexamples: denial, unacceptable, not allowed, concealing, shame

Restraint

Examples: restraint, restriction, waiting, non-reactive, holding back, not acting prematurely, [wanted to...but didn't, didn't react to abuse, waiting to talk to trusted person, disclosing to appropriate adult, disclosing to safe friends, not fighting back, not engaging]

Counterexamples: reactivity, impulsivity, acting out, acting prematurely

Humor

Examples: making fun, funny, joking, humor, [making light of the abuse, joke about circumstances, laughing]

Counterexamples: serious, no joking

Religious coping

Examples: spirituality, beliefs, religion, higher power, [protection, salvation, forgiveness]

Counterexamples: isolation, agnosticism, atheism

Denial

Examples: not that bad, not real, it's okay, [wasn't abuse, happens to everyone, minimizing impact, didn't hurt, my fault]

Counterexamples: not okay, hurt me, happened, real

Behavioral disengagement

Examples: quit, stopped, couldn't...anymore, gave up

Counterexamples: continued, started

Substance use

Examples: alcohol, drug, smoke, drink, high, vape, substance use, [opiates]

Counterexamples: don't drink, don't smoke, don't do drugs

Mental disengagement

Examples: distract, don't think about it, not think about it, mind off of it, [dissociation, zoning out, checked out, slacking, ignore it, self harm, substance use, suicidal ideation, suicide attempts, overeating, sexual compulsion, changes subjects]

Counterexamples: think about it, thinking about it, can't distract, focused, hyperfocused

Focus on venting of emotions

Examples: vent, talk about, talk to...about, [felt..., talk to therapist, talked to friends, expressed emotion, cried, got angry]

Counterexamples: don't talk about, can't talk about, don't want to talk about

Instrumental social support

Examples: advice, assistance, information, what to do, help, [have people to talk to, can reach out, talk to friends/family, trusted, talked to, asked someone, told someone]

Counterexamples: no advice, no assistance, no information, couldn't help, didn't help

Emotional social support

Examples: moral support, sympathy, understanding, empathy, [have people to talk to, can reach out, talk to friends/family, talk to therapist, trusted, talked to, asked someone, told someone]

Counterexamples: don't understand, can't understand