A QUALITATIVE INVESTIGATION OF RESILIENCE AMONG COLLEGIATE ATHLETES WHO SURVIVED CHILDHOOD MALTREATMENT

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The purpose of the current study was to understand the lived experiences and perspectives of high-functioning survivors of moderate or severe childhood maltreatment (CM) as related to the role of athletic participation in the development of their resilience. We emailed and screened Division I student-athletes from universities across the U. S. who did not meet criteria for a traumatic stress disorder. Using a constructivist grounded theory approach and constant comparison methodology, we obtained and analyzed interview data from 13 participants. The pathways through which participation in childhood athletics supported their coping include receiving social support from coaches and teammates, being present and engaged in their athletic participation, feeling relatively safe in their athletic environment, and spending time away from the main perpetrators of the CM. After applying concepts from existing literature to our data, we developed hypotheses to explain the processes by which participation in youth sport fosters resilience. For example, sport participation may provide opportunities for corrective emotional experiences that help young athletes heal. In addition, based on self-determination theory, maltreated elite athletes may benefit from sport participation because it meets their three basic needs (i.e., autonomy, mastery, and relatedness). We conclude this study with suggested implications for researchers and clinicians, as well as recommendations related to the training and education of coaches in terms of CM.

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CHAPTER 1

INTRODUCTION

Introduction to Childhood Maltreatment

The Child Abuse Prevention and Treatment Act (1974) defines child abuse and neglect as "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm" (Section 5101). According to the most recent report published by the U.S. Department of Health and Human Services (USDHHS) on child maltreatment, about 656,000 children were abused or neglected across the United States in 2019 (USDHHS et al., 2019). As this number is limited to official reports made by child protective service (CPS) agencies after their investigations in response to reports of childhood maltreatment (CM), the actual number of child abuse and neglect victims is likely much higher.

According to confirmed CPS reports, neglect was the most common type of CM in 2019, impacting 491,344 children (USDHHS et al., 2019). Affecting 114,800 children, physical abuse was the second most prevalent type of CM (USDHHS et al., 2019). In addition, 61,008 children were sexually abused (USDHHS et al., 2019). Official reports classify abuse or neglect that do not fall into these three categories as "other," which can include threatened abuse or caretakers being addicted to drugs or alcohol. This "other" category of abuse or neglect impacted 44,608 children (USDHHS et al., 2019). These statistics reflect only how many children were maltreated, not how many incidents of the maltreatment that occurred in the child's life. While the majority of children (554,320) experienced one type of maltreatment, 101,680 children experienced at least two maltreatment types (USDHHS et al., 2019). Emotional maltreatment is not tracked by child protective services, making it perhaps the most under-reported form of

childhood abuse (Barnet et al., 2005). However, it is considered the crux of CM, existing separately but also underlying the other forms of maltreatment (Navarre, 1987). In a study by van Harmelen and colleagues (2010), 93% of adults who endorsed CM reported suffering from emotional maltreatment. The results also suggested that emotional maltreatment was more predictive of an individual developing depression or anxiety than physical or sexual abuse (van Harmelen et al., 2010).

Consequences of Childhood Maltreatment

Due to the complex nature of CM, survivors are at a higher risk for a multitude of negative outcomes, such as post-traumatic stress disorder (PTSD; Child Welfare Information Gateway, 2013). The DSM-5 outlines criteria that must be endorsed for someone to qualify for a PTSD diagnosis, which include intrusive symptoms, avoidance of stimuli associated with the traumatic event, negative change in cognitions and mood, and significant increase in arousal and reactivity (APA, 2013). Due to CM victims being exposed to recurrent and sustained maltreatment, the potential consequences can be more insidious. In fact, many child maltreatment victims will not meet criteria for PTSD, especially initially (Denton et al., 2017). The phenomenon of criteria for PTSD not being met for several months or even years after the trauma occurred is called “delayed expression” (APA, 2013).

The complexity of recurrent and sustained trauma has led to the development of complex post-traumatic stress disorder (CPTSD), a disorder that has been published in the most recent revision of the International Classification of Diseases – 11th Revision (Courtois, 2008; World Health Organization, 2019). CPTSD includes six factors, three of which originate from standard PTSD symptoms (Maercker et al, 2013). These are reliving the trauma, avoidance, and heightened threat levels (Maercker et al, 2013). The three unique factors are extensive emotion

dysregulation, negative self-concept, and interpersonal turmoil (Maercker et al, 2013). The latter three areas of disturbance reflect CPTSD's greater impact compared to PTSD (Herman, 1992). First, the symptoms are more drastic and multifarious (Herman, 1992). Second, there is a greater likelihood that the survivor will experience personality changes, such as difficulties forming a stable identity (Herman, 1992). Finally, the survivor is more vulnerable to being exposed to further harm (Herman, 1992).

CM survivors are at increased risk for CPTSD, as well as other psychiatric disorders such as depression, anxiety, and borderline personality disorder (CWIG, 2013). Cognitive difficulties may ensue after experiencing maltreatment, which could impair school performance and social functioning (CWIG, 2013). Undergoing CM is related to insecure attachment bonds with caregivers, which can then impair relationships with others across the life span (Baer & Martinez, 2006; Bowlby, 1969/1982; Finzi et al., 2001). Maltreated children also have a higher probability of problem behaviors, which include risky sexual behaviors, substance use, and illegal activities (CWIG, 2013). Finally, and most tragically, abuse or neglect can result in death, killing approximately 1,840 American children in 2019 (USDHHS et al., 2019).

Risk Factors vs Protective Factors

Researchers in the trauma field initially focused on the connection between risk factors and the manifestation of trauma-related symptoms as the key to learning how mental health disorders develop and how to treat them (Cicchetti, 2010; Masten, 2001). However, researchers now take into account the impact of protective factors as well to help answer the question of why people who experience similar traumas might be affected differently (Cicchetti, 2010; Masten, 2001).

While most people will experience at least one traumatic event in their life, the majority

will not develop a mental health disorder (Copeland et al., 2007; Kilpatrick et al., 2013; Levine et al., 2009). The likelihood of enduring a traumatic event throughout the lifetime is 89.7%, (Kilpatrick et al., 2013), and almost 70% of people will have experienced one by the age of 16 (Copeland et al., 2007). While the probability of experiencing a trauma is high, the likelihood of being diagnosed with PTSD by age 75 is 8.7%, and the 12-month prevalence rate is 3.5% (APA, 2013). It is important to reemphasize, however, that experiencing a traumatic event does increase the likelihood of developing mental health concerns (Rubonis & Bickman, 1991). Resilience has been identified as a potential protective factor that may help clarify the discrepancy between the large number of people who experience trauma and the smaller number of people who suffer from mental health disorders after experiencing trauma.

Resilience as a Protective Factor

This paper uses Luthar and colleagues' (2000, p. 543) definition of resilience: a "dynamic process encompassing positive adaptation within the context of significant adversity." Rather than being an innate trait lasting a lifetime (Cicchetti, 2010), resilience is the process of positive adaptation. This adaption traces a developmental path influenced by various factors that fluctuate across the life span (Cicchetti, 2010). To establish whether resilience is in effect, there are two considerations (Luthar et al., 2000; Masten, 2001). First, an individual must experience an event that challenges healthy functioning. Second, the individual must achieve some manner of positive adaptation in spite of undergoing the event. There is an internal adaptation element of resilience that involves the effort to manage and sustain psychological well-being, as well as an external adaptation element that involves the effort to connect with the surrounding environment as before the event (Masten, et al., 2009).

There are protective factors that can boost resilience and combat the deleterious effects of

CM. Researchers have distinguished three categories of factors that aid in the buildup of resilience, which are individual factors, family factors, and environmental factors (Luthar et al., 2000; Masten & Garmezy, 1985). Individual traits related to increased resilience include problems-solving skills, self-regulation skills (Masten, 2007), low neuroticism (Collishaw et al., 2007), and high self-esteem (Cicchetti et al, 1993). An individual's coping strategies, such as positive reframing and problem-focused coping, can also act as protective factors (Folkman & Moskowitz, 2000).

Regarding family factors, healthy relationships with well-functioning adult family members are associated with resilience outcomes (Cicchetti, 2000; Schaefer et al., 2018). Specifically, perceived parental care is important for developing resilience (Collishaw et al., 2007). A well-functioning home environment and parents in a healthy relationship can also serve as protective factors (Masten et al., 2009). Positive relationships with adults other than parents, such as other family members, can be especially important for children from tumultuous home environments (Masten et al., 1990). The third category, aspects of the community, include public safety, health care and its availability, and effective and accessible schools (Masten et al. 2009). Within schools, a healthy student-teacher relationship is protective for youth experiencing adversity (Smokowski et al., 1999). Interpersonal relationships with well-adjusted peers in the community are also important in developing resilience (Masten, 2007). Specifically, a sense of belonging is related to lower psychological distress, higher educational engagement, and less risky alcohol use in adults who experienced CM (Corrales et al., 2016; Torgerson et al., 2018). Aspects of culture that are related to resilience include religion and identification with a particular culture (Unger, 2008). An individual's culture can influence how one perceives a trauma as well as how one reacts to it (Ungar et al., 2007).

Populations Benefiting from Sport Participation after Trauma

Trauma has been studied from many different angles, including its risk factors, consequences, protective factors, and recovery pathways. Researchers have recently become interested in how sport participation can resist and repel the negative impact of trauma (e.g., Bergholz et al., 2016; Coombs, 2016; D'Andrea et al., 2013). Much of the literature related to sports, trauma and coping focuses on trauma that occurs within the sport environment, such as a sports injury (e.g., Galli & Vealey, 2008; Poglog & Eklund, 2006; Udry et al., 1997). However, the trauma focus of this project will be CM, which is more likely to occur outside of the sport environment (but is also possible to occur within it as well). The next section will outline populations who effectively used sports as an intervention to combat the negative effects of various types of traumas.

Sport-related interventions have been utilized to help veterans cope with combat trauma (Caddick & Smith, 2014; Hammermeister et al., 2012). A systematic review by Caddick and Smith (2014) determined that various sports and physical activities were effective intervention tools that improved combat veterans' mental health through active coping, reduced PTSD symptomology, sense of achievement, and greater motivation for living. Furthermore, combat veterans' sport-related psychological skills, such as goal-setting and energy management, are related to greater self-perceived resilience (Hammermeister et al. 2012). The increased resilience from these skills can in turn provide a buffer against the impact of future trauma (Hammermeister et al., 2012).

Related to combat, researchers have also identified the positive benefits of sport participation for civilian survivors of war or terrorism (Ley et al., 2017; Ley et al., 2018; Tim et al., 2017). Ley and colleagues (2017; 2018) discovered that a sport intervention increased war

and torture survivors' ability to experience "flow." By experiencing the "here and now" state of flow, people can spend less time dwelling about the past and fearing the future. Living in the "here and now" can be especially important for survivors of trauma who suffer from intrusive thoughts or flashbacks about the trauma they experienced. In a case study, sport participation helped an individual diagnosed with PTSD after enduring war and torture by increasing self-esteem, independence, interpersonal connection, and enjoyment (Ley et al., 2018). Finally, in a qualitative study conducted months after the Boston Marathon bombing, participants who competed in the 2013 Boston Marathon reported using running as a coping strategy to "reflect, escape the stress of their lives, and share their experiences with understanding running partners" (Timm et al., 2017, p. 46).

People who have experienced traumatic injuries are another population of interest in this field, as researchers have discovered that sports can play a role in their recovery and adaptation to their lives post-injury (Kampman & Hefferon, 2020; Machida et al., 2013). Male quadriplegics utilized wheelchair rugby to help them physically and psychologically adapt to their acquired spinal cord injury (Machida et al., 2020). In a similar vein, sports provided the opportunity for identity development and achievement in British Paralympic athletes who also acquired their physical disabilities (Kampman & Hefferon, 2020).

Lastly, childhood trauma survivors have been a target population in this area of research, although the type of trauma under examination in these studies have varied greatly (e.g., Coombs, 2016; D'Andrea et al., 2013, Easterlin et al., 2019). In a longitudinal study examining the impact of adverse childhood experiences (ACEs), adults who had played team sports in middle and high school were less likely to develop anxiety or depression than adults who did not play team sports (CDC, 2018; Easterlin et al., 2019). ACEs are a broad category of traumatic or

stressful events that include three groups: abuse, neglect, and household challenges. Girls in a residential treatment setting who participated in a sports-based intervention improved more on measures of prosocial behavior as well as internalizing and externalizing symptoms compared to girls who did not participate in a sports-based intervention (D'Andrea et al., 2013). In a qualitative study, all seven participants reported that playing sports aided their recovery from childhood traumatic events, the majority of which were singular traumas (Coombs, 2016). Youth in detention facilities have also been identified as a population of childhood trauma survivors that may benefit from sport participation, as separation from primary caregivers can be traumatic (Denton et al., 2017). Sport interventions have been demonstrated to aid youth in their rehabilitation process and cope with the environment of a detention facility (Meet & Lewis, 2014; Parker et al., 2014; Van Hout & Phelan, 2014).

Sport Factors Contributing to Resilience

Similar to the current wave of trauma research that is uncovering the pathways to building resilience, researchers have been examining specifically how sports can build resilience in childhood trauma survivors (e.g., Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). First, participating in sports offers traumatized children the opportunity to build their social support (Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). Social support is a well-established protective factor against the deleterious effects of trauma (Masten, 2007). Sports are inherently cooperative, necessitating participants to work together and communicate. Thus, trauma survivors can bond with peers through their sport participation (D'Andrea et al., 2013). Specifically, sports can imbue in participants a sense of belonging, where the participants feel embraced for who they are and that they deserve to be in that setting (Ley et al., 2018; Massey & Whitley, 2016; Meet & Lewis, 2014).

Sport participation also provides children a platform through which to learn goal-setting (Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). The childhood trauma survivors in Coombs' qualitative study (2016) endorsed higher resilience through learning how to set goals and subsequently work to accomplish those goals within the sport context. Goal-setting can produce multiple adaptive outcomes, such as improving motivation, confidence, and focus as well as reducing stress (Burton & Raedeke, 2008). While goal-setting is an important skill in the sport environment, it is a generalizable skill that can apply to other areas of life (Coombs, 2016).

Self-esteem is often negatively impacted by trauma (CWIG, 2013; Ley et al., 2018). By training and improving the skills relevant to a sport, participants can develop self-efficacy and increase self-esteem (D'Andrea et al., 2013; Petitipas et al., 2004). Super and colleagues (2019) reported that sport participation can help children cultivate an identity in which they take pride, which is crucial since trauma can significantly damage an individual's identity (Herman, 1992). Repeated trauma can even destroy a person's sense of identity completely (Herman, 1992). Conversely, sports can spark a new sense of identity in trauma survivors, such as that of an elite athlete (Kampman & Hefferon, 2020).

Furthermore, sports can provide participants with positive attachment figures (Coombs, 2016; D'Andrea et al., 2013). As already mentioned, healthy relationships with well-adjusted adults are an important protective factor for childhood trauma survivors (e.g., Cicchetti, 2000; Schaefer et al., 2018). In sports, athletes have the opportunity to bond with their coach, who can serve as a healthy adult attachment figure (D'Andrea et al., 2013). For athletes with an absence of healthy attachment figures in their lives, a positive adult attachment figure in the sport context could be particularly significant (Coombs, 2016).

The athletic environment itself can be healing (e.g., Coombs, 2016; D'Andrea et al.,

2013; Machida et al., 2013). Sports can help athletes cope with the physiological or emotional impact of trauma. If children endorse hyperarousal symptoms, the physical nature of sports may provide a safe opportunity to release this extra energy (D'Andrea et al., 2013). Coombs (2016) indicated that sports could provide a healthy outlet for athletes to vent their frustration stemming from their trauma if the venting occurs through the appropriate activities within the sport. The sport environment can also provide an escape, both literally and figuratively for athletes (Coombs, 2016; Massey & Whitley, 2016; Meet & Lewis, 2014). Playing sports offers athletes the chance to dream about leaving their traumatic surroundings and playing sports collegiately or professionally, giving them hope (Massey & Whitley, 2016). The athletic environment may provide for a physically safer atmosphere when there is a backdrop of violence in the community (Sobotova, 2016). It may also provide for an emotionally safer atmosphere where athletes can forget about their trauma and instead direct their full attention to their sporting activities (Coombs, 2016).

Lastly, playing sports provides survivors of childhood trauma the opportunity to have fun and participate in a culturally popular activity (D'Andrea et al, 2013; Ley et al., 2018; Machida et al., 2013). In 2019, about 73% of children aged 6-12 and 69% of children aged 13-17 participated in sports at least casually (The Aspen Institute, 2020). Sports are ingrained in American culture, meaning that many children are likely to be interested in sports. Playing sports like millions of other children, as well as playing sports even after trauma, can create a stronger sense of normalcy in the life of a childhood trauma survivor (Ley et al., 2018; Machida et al., 2013).

Risks of Participating in Sports

In examining the role of sports after experiencing trauma, a thorough discussion must

include the risks to participating in sports after a traumatic event (Bergholz et al., 2016; Ley et al., 2018). Sports is by no means a panacea for all those who have suffered trauma. Sports might actually elicit physical or emotional feelings related to trauma (Ley et al., 2018). For example, physical pain experienced in sport might trigger memories of a trauma that caused physical pain (Ley et al., 2018). Moreover, physiological sensations, such as elevated heart rate, might remind athletes of their trauma (Ley et al., 2018). Also, if a child's peers are performing better than they are in sports, the child's self-esteem may be negatively impacted, which may already have been reduced after experiencing a trauma (Ley et al., 2018). Sports, such as football, may encourage the use of physical force in a manner that is akin to violence, which could be psychologically damaging for someone who has already suffered physical violence (Whitley et al., 2016).

It must be said that the sport environment may indeed be the root cause of maltreatment or trauma. For example, athletes may be subject to emotional abuse by their coaches (Stirling & Kerr, 2008). Infamous incidents of CM occurring within the sport context include team doctor Larry Nassar sexually abusing American gymnasts and college football coach Jerry Sandusky sexually abusing boys from a non-profit organization that included athletic participation. Hence, while the literature typically identifies the benefits of sports in the trauma framework, trauma or maltreatment can still stem directly from sport participation.

Coaches carry a great amount of power in developing the nature of the sport environment for the athletes. Bergholz and colleagues (2016) detail guidance for trauma-sensitive coaching. This guidance includes coaching in pairs, centering skill development, and collaborating with the athletes (Bergholz et al., 2016). Coaching in pairs allows for more one-on-one attention and greater support for all athletes (Bergholz et al., 2016). Emphasizing skill development allows the athletes to focus more on what is within their control, such as their effort, rather than the

outcome of a competition. Collaborating with the athletes can increase their sense of autonomy as well as their engagement.

Bergholz and colleagues (2016) also give advice for a trauma-sensitive sport environment that coaches can develop, which they can do through stressing emotional and physical safety, giving the choice of long-term participation, acting as healthy adult attachment figures, fostering a team culture that focuses on relationships and teamwork, making positive traditions like cheers and warm-ups, and preserving a format that has consistent schedules and rules. Fostering a caring environment can be impactful, as athletes who characterize their environment as caring have higher rates of prosocial behaviors within the sport context and improved emotion regulation skills (Gano-Overway et al., 2009). Finally, it is important to consider culture when working with childhood trauma survivors because cultural backgrounds will impact how youth manage trauma (Bergholz et al., 2016). For example, Andrés-Hyman and colleagues (2004) discovered that the effects of childhood sexual abuse varied according to ethnicity and sexual orientation. Integrating pertinent cultural factors can increase athletes' sense of trust and safety in their sport environment (Bergholz et al., 2016).

Diversity and Equity Considerations

This study took diversity and equity into account on two different levels: who is being maltreated and who is playing sports. In terms of maltreatment, children of color are disproportionately abused or neglected. While 13.7% of children in the United States are African-American, they accounted for 20.9% of CM cases (USDHHS, 2019). American Indian or Alaska Native children have the highest rates of maltreatment within their own population, with 14.8 American Indian or Alaska Native children being abused or neglected out of every 1,000 children of the same race. African-American children have the second highest rate, with

13.8 African-American children being maltreated out of every 1,000 African-American children. Children from lower income backgrounds, who are more likely to be children of color, are also at greater risk of abuse or neglect (Centers for Disease Control and Prevention, 2021). It is important to highlight the significant role that systemic racism and classism play in contributing to these statistics. In Fontes' *Child Abuse and Culture: Working with Diverse Families* (2015), she states:

> The most effective way to reduce abuse among those at the bottom of the social ladder may well be to provide jobs, quality housing, and income subsidies, thereby addressing the stresses of poverty, rather than simply offering home visitation and/or parenting classes. Addressing social injustice, rather than presumed parental deficiencies, requires greater commitment. It requires us to admit that if some of us were forced to live in the circumstances in which some of our clients live, we too might hurt our children, and certainly might be unable to provide for them adequately. (p.188)

Having a disability is also a risk factor for experiencing maltreatment (USDHHS et al., 2019.). Sullivan and Knutson (2000) estimate that children with disabilities are 3.4 times more likely to be abused than non-disabled children.

As this literature review has demonstrated, there are numerous mental, physical, social, and academic benefits for people to participate in athletics. On top of these general benefits, researchers have demonstrated that sports can be a valid intervention (when implemented appropriately) for different populations of people healing from various traumas. While sports may have the ability to improve people's lives, not everyone has equal access to this possibility.

Gender provides a salient example. Girls start playing sports later than boys, play less, and stop playing sports earlier than boys (Sabo & Veliz, 2008). In 2019, 39.1% of boys aged 6-12 years played sports on a regular basis, while 32.7% of girls did the same (The Aspen Institute, 2020). In U.S. high schools, boys have about 1.13 million more opportunities to play sports than girls (National Federation of State High School Association, 2019). This underrepresentation

continues for women at the collegiate level, as there are only 8.6% of Division I institutions offering the number of athletic sports to female student-athletes that would be proportional to their enrollment rates, while 87% of the three NCAA divisions disproportionately offer more athletic opportunities to male student-athletes compared to their enrollment rates (U.S. Department of Education, 2019). Barriers that may limit participation include gender role beliefs (Zarrett et al., 2019), lack of female role models in sport (Female Leaders in Sport Survey, 2019), and lack of media coverage of women's sports (Cooky et al., 2015).

There are large disparities within sport participation when it comes to race as well. Children of color are underrepresented at the grassroots level of sports (Women's Sports Foundation, 2011). In 2019, 40.0% of White children aged 6-12 years played a sport on a regular basis, while 34.8% of Black children, 34.9% of Asian-American/Pacific Islander children, and 33.9% of Hispanic children did the same (The Aspen Institute, 2020). Due to fewer resources at majority-minority high schools, students of color have less access to sports than White students, who are more likely to attend high schools with a greater population of White students and more resources (National Women's Law Center, 2015). Student-athletes of color are also underrepresented at the collegiate level compared to their enrollment rates (Women's Sport Foundation, 2011). Factors that may hinder participation for athletes of color include "economic limitations, societal stereotyping, and cultural barriers" (Women's Sport Foundation, 2011, p. 5). Economic limitations disproportionately effect children of color but serve as a barrier for children of all races, as children from higher socioeconomic backgrounds are more likely to participate in sport program outside of school that require payment (Boufford et al., 2006).

Children with disabilities take part in competitive and recreational sports at lower rates than non-disabled children (van Brussel et al., 2011). For example, whereas about one-third of

people without physical disabilities do not participate in sports, almost two-thirds of people with physical disabilities choose not to participate (USDHHS, 2010). Barriers to their participation include transportation, accessibility difficulties, cost, and lack of appropriate facilities (Jaarsma et al., 2014). However, participating in sports can improve the physical and mental health of children with disabilities, as well as their social support (Blinde & McClung, 1997; Campbell, 1995; Martin & Smith, 2002), demonstrating the potential importance to increase this population's athletic participation.

Purpose of this Study

The experiences of CM survivors, who suffer sustained and repetitive trauma, are understudied in the literature that examines the intersection of sports and trauma. This study recruited Division I student-athletes across the U.S. By achieving this elite status, participants had to demonstrate a certain level of resilience throughout their life. A constructivist grounded theory (CGT) approach negates the development and testing of hypotheses, instead relying on the data collected within the study to then generate theories or hypotheses (Lingard, 2008). Thus, the purpose of this study was to determine whether Division I student-athletes used their respective sports to help them build resilience during and after their experience of CM. If so, are these pathways for elite athletes who suffered CM similar or different to the proposed pathways in the literature that discuss how athletics increases resilience? Furthermore, what hypotheses can be generated that might help researchers better understand the benefits of these pathways?

CHAPTER 2

METHODS

Constructivist Grounded Theory

The methodology of this study followed the guidelines of a grounded theory approach (Charmaz, 2008). The purpose of a grounded theory approach is to create explanations (e.g., theories, hypotheses) about social phenomena that are "grounded" in a systematic analysis of qualitative data (Lingard et al., 2008). Grounded theory aims to explain a process and generate a theory or hypothesis, rather than assess an extant theory (Lingard et al., 2008). It is important to note that single studies rarely generate their own theory about a phenomenon, instead producing hypotheses that can support and build off each other to establish a theory over time through multiple studies with supporting evidence (British Sociological Association, 2012). A grounded theory approach fit this study due to the lack of current theories or hypotheses about how athletic participation may contribute to the development of resilience in childhood maltreatment (CM) survivors.

Core concepts of grounded theory include "minimizing preconceived ideas about the research problem and the data, using simultaneous data collection and analysis to inform each other, remaining open to varied explanations and/or understandings of the data, and focusing data analysis to construct middle-range theories" (Charmaz, 2008, p. 155). Grounded theory is an iterative process, meaning that data collection is not linear nor is the collection distinct from data analysis (Weed, 2009). Instead, grounded theory researchers compare the most recent data collected in the study to past literature and earlier data from the study itself to further clarify concepts until researchers can generate theories or hypotheses (Weed, 2009). Thus, data collected in a grounded theory study inform future data collection in that same study, improving

the researchers' ability to develop a deeper understanding of the phenomena of interest. It is the data itself that guides the data collection and analysis rather than the researchers' hypotheses.

There are three main branches of grounded theory: Glaserian, Straussian, and Constructivist. These branches differ in terms of epistemology (Weed, 2009). Epistemology is the branch of philosophy that grapples with our understanding of knowledge. Positivists assume that one can attain direct knowledge of the world by direct, objective investigation or analysis of the phenomena under examination (Weed, 2009). On the other hand, interpretivists believe that it is impossible to have direct knowledge of phenomena, and that we develop our knowledge through indirect means that have to involve interpretation. Constructivist grounded theory (CGT) takes an interpretivist epistemological approach (Weed, 2009). Thus, this approach considers the contextual differences in people's experiences and respects their different perceptions of these experiences.

Charmaz (2008) also emphasizes the emergent themes inherent in CGT, defining an emergent method as "inductive, indeterminate, and open-ended" (Charmaz, 2008, p. 155). She posits that CGT has more properties of an emergent method than other grounded theory approaches through two means. First, CGT intentionally introduces doubt into the analytic process. Second, the CGT allows the researcher flexibility in creating methodological means to respond to what the researcher learns throughout the process. Thus, this approach encourages the identification and creation of emergent critical questions systematically (Charmaz, 2017).

Finally, Charmaz (2017) discusses the social justice implications of taking a CGT approach. This approach emphasizes critical inquiry, which she defines as a "transformative paradigm that seeks to expose, oppose, and redress forms of oppression, inequality, and injustice" (Charmaz, 2017, p. 35). CGT researchers work to accomplish this by challenging the

methodological individualism embedded in qualitative research, as well as adopting methodological self-consciousness (Charmaz 2017). This reflective attitude means researchers intentionally examine their own worldviews, bias, and privilege, and how these may influence the research process (Charmaz, 2017).

Researcher Bias

As such, I reflected on my own biases, identities, and lived experiences throughout the study. For example, I experienced the sudden loss of my mother at a young age. Sports not only played a large role in my healing journey from that trauma, but I also enjoyed my athletic career overall. Part of my motivation to conduct this study came from this personal experience and wondering if the healing that I experienced from sports may generalize to other traumatized children. This salient experience was important for me to acknowledge from the beginning and consider how it may affect the study.

I tried to use my experience as a former Division I collegiate athlete to benefit the study. Specifically, I was able to build rapport with participants through my own understanding of the athletic environment and unique pressures that athletes face. By experiencing the athletic environment in my own athletic career as well as working with collegiate student-athletes as a sport psychology consultant throughout my doctoral program, I was able to ask relevant questions without needing the participants to explain background information about the athletic context. Instead, participants could focus on discussing their personal experiences with athletics and CM that were more pertinent to the research questions. With me being able to understand athletic identity, the participants may have felt more comfortable disclosing intimate information.

On the other hand, I was aware that my personal experiences with sport and trauma could

be detrimental to the study if I made assumptions about the positive impact of sport for trauma survivors. To limit the possibility of this, I was intentional about discussing my experiences with my fellow coder in our coding and interview meetings. When there was disagreement with a code during consensus meetings, I reflected on whether my personal experiences as an athlete who used sports to heal from trauma may be playing a role in my interpretation of the code. After the first three interviews, the coder and I agreed to be more intentional about the negative aspects of sports, such as asking the participants how sports may have made their experience of maltreatment more difficult. These additional questions allowed the participants space to discuss their experience of sport and maltreatment more objectively rather than looking at it from the singular angle of healing. Through these discussions and updates to the interview schedule, I honored the participants' experiences while acknowledging my own.

I was also aware of my visible identities, specifically being a White man, and how that could affect the power dynamic in each interview. CGT emphasizes the egalitarian relationship between researcher and participant, which necessitates the researcher to engage with the participants in such a way that he was not viewed as the person with more power in the interview (Charmaz, 2008). Thus, it was important to intentionally reduce the power historically allowed to White people and men, especially in the interviews with participants who did not hold these identities. The concern with power is especially significant when discussing trauma, which often leave those who experience it feeling powerless. With these concerns in mind, I was intentional before each interview started to be explicit in communicating to the participants that they were in control of the interview. I stressed that they only had to share what they were comfortable sharing and that they could discontinue the interview at any time. Once the interview began, I empathetically listened and intentionally worked to not make assumptions about their

experiences just because they were an athlete or a CM survivor. I also asked open-ended questions to increase the participants' flexibility in answering the questions, as well as offered the participants at the end of the interview the opportunity to disclose anything they thought was important for me to know that I did not specifically ask.

Participants

Participants were 13 Division I student-athletes (see Table 1). Purposive sampling, a technique that researchers use to identify potential participants who are most closely aligned with the phenomena of interest, guided the recruitment process (Etikan et al., 2016). Specifically, purposive sampling in this study focused on recruiting Division I level student-athletes who endorsed a minimum level of abuse or neglect on a quantitative measure of CM (i.e., Childhood Trauma Questionnaire) and reported a lack of severe psychopathology on a quantitative measure of trauma-related symptoms (i.e., Complex Trauma Inventory). Utilizing this sampling technique allowed researchers to recruit participants who were high-functioning even after the experience of significant childhood maltreatment.

Table 1

Frequencies for Demographics

Characteristic		*n*	%
Gender	Woman	11	84.46
	Man	2	15.38
Age [a]	18	1	7.69
	19	2	15.38
	20	6	46.15
	21	1	7.69
	22	1	7.69
	23	2	15.38

(table continues)

Characteristic		*n*	%
Sexual Orientation	Straight	6	46.15
	Bisexual	4	30.77
	Asexual	1	7.69
	Gay/Lesbian	1	7.69
	Pansexual	1	7.69
Ethnic/Racial Background	European Origins/White	8	61.54
	Black/African-American	3	23.08
	Asian/Asian-American	2	15.38
Sport	Cross-Country	4	30.77
	Track and Field	2	15.38
	Diving	1	7.69
	Rowing	1	7.69
	Soccer	1	7.69
	Softball	1	7.69
	Tennis	1	7.69
	Volleyball	1	7.69
	Water Polo	1	7.69

Note. [a] M = 20.38, SD = 2.26.

Of the 13 participants, five experienced a moderate level of at least one type of CM, and eight experienced a severe level of at least one type, while none endorsed current severe psychopathology (see Table 2). This process of purposive sampling with quantitative screening tools intentionally increased the homogeneity of our sample, specifically regarding the participants' experiences of CM as well as their current level of functioning. Using quantitative results to select a sample "can be particularly advantageous in studies using theoretical sampling, such as grounded theory studies" (Clark et al., 2008, p. 369). Participants who qualified for the study based on their responses from the screening questionnaire and consented to an interview took part in an interview, the main data collection stage of the study.

Table 2

Frequencies for Types of Maltreatment Experienced at "Moderate" or "Severe" Levels [a]

	n	%
Emotional abuse	10	76.92
Emotional neglect	8	61.54
Physical abuse	5	38.46
Physical neglect	4	30.77
Sexual abuse	3	23.08

Note. The percentage sum is greater than 100% due to 11 participants experiencing more than one type of maltreatment. [a] Moderate and Severe levels according to the Childhood Trauma Questionnaire.

Measures

The demographics survey assessed for participants' diversity factors. These factors included gender, age, sexual orientation, race/ethnicity, and sport.

The Childhood Trauma Questionnaire (CTQ), a retrospective 28-item, self-report measure that screens for childhood trauma, was used to determine the participants' maltreatment history and severity (Bernstein & Fink, 1998). It has five scales (i.e., Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect, and Physical Neglect), each of which include five items. The severity of each form of maltreatment is categorized as either none, low, moderate, or severe (Bernstein & Fink, 1998). Participants who experienced at least a moderate level of maltreatment on one of the five scales qualified to take part in an interview. Those who endorsed either a low level of maltreatment or no maltreatment on all five scales were excluded from the study.

Sample items of the CTQ include "I felt that someone in my family hated me" and "I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor" (Bernstein & Fink, 1998). The items for each of the five scales are measured on a 5-point Likert

scale ranging from *never* to *very often*. Due to the small sample of this study, Cronbach's alphas for each measure were calculated by combining the sample of athletes in this study with the sample of musicians in a parallel study who completed the same measures. The internal consistencies were good (α = .81) for the total scale, acceptable (α = .77) for Emotional Neglect, good (α = .82) for Emotional Abuse, poor (α = .56) for Physical Neglect, good (α = .82) for Physical Abuse, and good (α = .89) for Sexual Abuse. Physical neglect is consistently reported to have the lowest alphas of the five subscales (Bernstein & Fink, 1998). Low alphas cited include α = .61 (Bernstein & Fink, 2003) and α = .58 (Scher et al., 2001).

While retrospective reports of childhood trauma may include some under-reporting, measurement error, or bias, Hardt and Rutter (2004, p. 270) recommend that "serious, readily operationalized, adverse experiences can be made to be sufficiently valid." Furthermore, the CTQ includes a three-item minimization/denial (MD) scale to assess possible underreporting. These items are dichotomized (1 = *very often true*, 0 = *all other responses*) and then summed. An example of an item from this scale includes "I had the best family in the world." Bernstein and Fink (1998) suggest that participants scoring 1 or higher on the MD scale should be removed due to the likelihood of false-negative responses. However, according to MacDonald and colleagues (2016), researchers should not necessarily exclude participants who endorse the MD items. After examining several multicultural samples using CTQ data, they could not identity a specific cut-off MD score that would point to an obvious classification of an invalid or valid response. They also concluded that excluding MD positive participants risks restriction of range problems. As a result of the conflicting conclusions from MacDonald and colleagues (2016) and Bernstein and Fink (1998), 2 was this study's cut-off score, meaning that participants were removed who scored a 2 or 3 on the minimization/denial scale.

The Complex Trauma Inventory (CTI), a 20-item, self-report assessment, was used to screen for participants' current level of functioning. It was created to measure International Classification of Diseases 11th Revision's updated posttraumatic stress disorder (PTSD) criteria as well as a new trauma disorder called complex PTSD (CPTSD) (Litvin et al., 2017). CPTSD's criteria includes the criteria for PTSD with disturbances in self-organization (DSO) as an additional component. Those who endorsed a clinically significant level of PTSD, DSO, or CPTSD were excluded from the study.

The CTI has six subscales: Avoidance, Re-experiencing, Sense of Threat, Negative Self-Concept, Affect Dysregulation, and Disturbances in Relationships. The averages of these subscales are used to calculate individual second-order composite scores for PTSD, CPTSD, and DSO. Sample items include "Feeling or acting as if you were reliving stressful experience(s) again" and "Being easily startled or 'jumpy'" (Litvin et al., 2017). Each item is rated on two different 5-point Likert scales. The first Likert scale measures the intensity of the item and ranges from *not at all* to *extremely*. The second Likert scale measures the frequency of the item and ranges from *never* to *daily or almost daily*. The internal consistencies were good ($\alpha = .83$) for DSO, acceptable ($\alpha = .74$) for PTSD, and acceptable ($\alpha = .71$) for CPTSD.

The Connor-Davidson Resilience Scale (CD-RISC) is a 25-item self-report measure of resilience (Connor & Davidson, 2003). This purpose of giving this measure at the end of the interview was to help provide language around resilience through its individual items and perhaps spark new thoughts or memories when debriefing about the measure and their personal definition of resilience. Specific aspects of resilience that the scale measures include personal competence, acceptance of change, trust, control, and spiritual influences. The scale directs the participant to respond to each item based on the previous month. Example items include "I am

able to adapt when changes occur" and "Even when hopeless, I do not give up." Each item is rated on a 5-point Likert scale ranging from *not true at all* to *true nearly all the time*. The CD-RISC provided a quantitative measurement of resilience through a total score (0-100) from the 25 items, with higher scores indicating greater resilience. It demonstrated acceptable internal consistency ($\alpha = .73$).

Procedure

The UNT Institutional Review Board (IRB) approved this study. Compensation was funded through a Fall 2021 Graduate Student Research Award grant. I recruited and screened Division I student-athletes to participate in a semi-structured interview that was analyzed according to CGT principles.

Recruitment

To recruit for the study, I collected student-athlete emails through public directories offered by their specific institution. I initially sent 14,056 student-athletes a recruitment email (see Appendix F). The email included a brief description of the study as well as a Qualtrics link that directed participants to the screening questionnaire. This questionnaire included the informed consent (see Appendix G), the demographics survey, the CTQ, and the CTI. When I needed more participants to collect more data, I sent a reminder email to the initial student-athletes who did not complete the screening survey. I also sent the initial recruitment email to an additional 861 athletes, which meant that a total of 14,917 student-athletes were contacted.

At the end of the screening survey, participants had the option to (a) provide contact information to enter into a drawing for a $50 gift card but not consent to being contacted about participating in an interview, (b) provide contact information to enter into a drawing for a $50 gift card and consent to being contacted about participating in an interview, or (c) not provide

any contact information. Participants who chose the last option were directed to a "conclusion of study" screen that included the debriefing form (see Appendix H). However, participants who consented to providing their contact information for either just the drawing or both the drawing and an opportunity to participate in an interview were presented with a page that included the same debriefing form, an explanation of how their data and personal information will be kept separate, and a link that took them to a different site depending on whether they were consenting to being contacted about a potential interview or not. On these sites, participants created a unique code that allowed me to contact them via email while retaining their confidentiality. This site also informed the participants that interviews will take place over the next one to four months and that they should expect an email informing them whether they have been selected for an interview within this timeframe. I then emailed selected participants to schedule a 60-90 minute semi-structured interview virtually through Zoom's HIPAA compliant format.

Screening

Three hundred forty-four participants completed the screening survey. Initial exclusion criteria included deleting participants who did not consent to being contacted for a follow-up interviews, were below 18 years old, did not endorse playing a collegiate sport, and who finished the survey too quickly to accept the validity of their data. To determine the minimum necessary completion time, I utilized the time from the average of two volunteers who completed the entire survey as quickly as they could while still reading through each item and answering to the best of their ability.

Next, participants were excluded if they scored a 2 or above on the CTQ validity scale. Then, participants were deleted if they (a) did not score at least a moderate level of CM on at least one of the five categories or (b) endorsed a clinically significant level of post-traumatic

stress symptomology. Finally, participants who were eligible on all criteria and consented to an interview, but did not actually provide contact information were deleted. After screening, of the participants who were eligible, consented, and provided contact information, 13 responded to scheduling emails and completed a 60-90 minute interview (see Table 2 for types of maltreatment experienced).

Interviews

I conducted the entirety of the interviews, but I collaborated with another researcher on CGT's constant comparison process of coding and updating the interview schedule. The other researcher completed a mirror study under the same IRB but with a different population. Both researchers were counseling psychology doctoral students trained in performing mental health services, which include conducting safety risk assessments and handling mental health emergencies. A supervising psychologist was also on-call for each interview while I conducted the virtual interview from a private office.

At the beginning of the interview, I checked in with the participant about the privacy of the participant's location and whether the participant would be comfortable disclosing intimate information in their location. Then, I reviewed the informed consent again with the participant and asked the participant for verbal consent due to the virtual nature of the interview. I made explicit the potential for discomfort and other difficult emotions that may be evoked while talking about their maltreatment, but I emphasized that the interview was not intended to be distressing. I encouraged the participant to let me know if the participant was experiencing any distress so that I could help reduce it through grounding or relaxation techniques. The participant was informed that they could withdraw from the study at any point during the interview. Finally,

I also reminded the participant that their interview was recorded and explained how their data will be stored securely.

After the participant gave verbal consent, I began the interview, which involved three general topics of discussion. The first topic was the participant's sport background; the second was the participant's history of CM; the third was the intersection of the participant's sport participation and CM, specifically how sport participation may have played a role in increasing the participant's resilience in coping with their CM (see Appendix I for specific interview questions, their order, interview guidelines, and changes that were made during the iterative interview process). The first two topics focused on gathering necessary context for the participant's experiences. This set-up also allowed participants the opportunity to make their own connections about their experience of athletics within the context of their maltreatment without being explicitly asked about it.

I created the initial interview schedule to align with CGT principles in that "researchers should only make choices regarding the initial gathering of data rather than predetermining the entire procedure of data collection from the outset of the study" (Kenny & Fourie, 2015, pg. 1270). As such, the initial interview schedule was designed to take a broad approach to the research questions and allow the initial data collection to guide the development of future questions (Charmaz, 2008). As researchers code the data and hypotheses emerge, there may be gaps in a particular area and thus require more data to continue developing the theory or hypothesis (Glaser & Strauss, 1967). These gaps would result in asking specific questions to address them. There is also the possibility that unexpected themes will emerge that may require further attention and shift the focus of the study (Glaser & Strauss, 1967). These unexpected themes would again mean that researchers would need to re-evaluate the interview schedule and

possibly create new questions. This design thus allowed me to add interview questions throughout the interview process (see Appendix I for specific questions that were added).

I took a neutral, empathetic, and non-judgmental approach to the interview, giving the participant the space to lead and minimizing the insertion of my bias into the interview. For example, a review of the literature on the intersection of trauma and sports suggest that athletic participation is linked to making positive gains after experiencing a trauma. However, I was sure to allow the participants the freedom to make this connection themselves rather than asking questions in a way that would assume sport participation increased their resilience. I was ready to provide participants with grounding or relaxation techniques to help them relax if needed, but no participants deemed this necessary.

At the end of the interview, the participant completed the CD-RISC. Specifically, participants were asked if completing the measure brought anything new up for them, as well as how they would define resilience. Next, I gave the participant a $30 gift-card as compensation and the same debriefing form (see Appendix H), which includes mental health resources in case they experienced any emotional difficulty after the interview. Lastly, I again checked in with the participant about their emotional state.

I recorded each interview using Zoom's recording feature, which necessitates both an audio and video recording. I deleted the video recording immediately after the interview before saving the audio recording to a secure location. I trained undergraduate research assistants (URAs) on how to transcribe interviews, de-identify information, and protect confidentiality generally. For example, I used pseudonyms for all people mentioned and general descriptors of identifying information, such as names of birth cities and schools. The URAs transcribed and de-

identified each audio recording within three days of the interview. Then, they deleted the recordings once transcribed and stored the de-identified transcriptions in a secure location.

Data Analysis

NVivo Plus 12 (2018) is the software that was used to code the data. Once the transcriptions were uploaded into NVivo, I analyzed the data through selecting content from the transcription and assigning that content a code that captured its meaning. NVivo organized the data by helping me visualize and categorize recurring codes into themes, categories, and sub-categories.

Specifically, the data analysis process followed the constant comparison method. This process entailed constantly comparing the data from each transcript to another throughout the data collection process (Charmaz, 2008). Constant comparison resulted in interviews being partially dependent on other interviews, allowing me to fill in gaps or build on data from past interviews.

Charmaz (2008) outlines a two-stage coding process for the CGT approach. The first stage is called initial coding, which involves line-by-line coding. In each line, the questions, "What is the main concern being faced by the participants" and "What accounts for the continual resolving of this concern?" guided me in coding for actions and potential theoretical cues (Glaser & Holton, 2004, para. 48). The coders independently coded each transcript using this initial coding process within two days of the URA's completing the transcription. Coders then used consensus meetings to identify any discrepancies and resolve them. These discussions allowed the coders to better understand their coding process so that coding was more aligned in future transcripts. Consensus meetings also involved discussions about the interview schedule and if

there was any need to include or exclude questions based on the data gathered from the previous interview.

The second stage of coding is refocused coding. In this stage, the coders worked to figure out the codes that have "analytic momentum" and can "carry the weight of the analysis" (Charmaz, 2008, p. 164). These are codes that were repetitive and critical in explaining the phenomenon. During consensus meetings, coders also collaborated to determine the codes with analytic momentum that could become provisional theoretical categories. This process began the hierarchical coding structure. Provisional theoretical categories were categorized into themes to further organize the data.

An important technique used during coding included memo writing was the constant process of note-taking throughout the research process, that allowed me to develop ideas in the moment (Charmaz, 2008). This process helped me reflect and trace back thoughts and ideas as the research process unfolded (Charmaz, 2008). Memo-writing can be conceptualized as the "intermediate stage between data collection and writing a draft of a paper or chapter" (Charmaz, 2008, p. 166).

Theoretical sampling guided how many participants the researchers asked to complete an interview. A grounded theory approach prohibits researchers from identifying a sample size *a priori* due to the inability to predict theoretical saturation. Theoretical sampling involved examining the data that the initial participants provided and then collecting further data "to help refine and develop the theoretical concepts that are emerging from the analysis" (Weed, 2009, p. 505). I engaged in this process by constantly reevaluating the interview schedule and adding new questions when new data called for further exploration of a concept. This process continued until the data collection reached theoretical saturation, which is when the data no longer adds to the

properties or dimensions of theoretical concepts (Charmaz, 2008). By the thirteenth participant, the new data was continuing to fit into the established theoretical categories without adding anything to them or creating any new ones. Specifically, participants at the end of the study were not reporting any new pathways to how they developed resilience through athletic participation. I compared the new data to previously established theoretical categories as well as extant literature to help reach this conclusion. In addition, the data collected was sufficient to posit multiple hypotheses for future studies to explore. Thus, theoretical saturation was determined to have been achieved.

CHAPTER 3

RESULTS

Five themes emerged from the coded interviews. Each theme consists of categories and sub-categories. Table 3 presents the participants' pseudonyms with their demographics and identifies the type and severity of childhood maltreatment (CM) experienced. Table 4 presents the overall organization of the themes, categories, and sub-categories. The following descriptions of the themes include supporting quotes from each participant (by pseudonym).

Table 3

Participant Demographics with Pseudonyms in Alphabetical Order

	Maltreatment Endorsed [a]	Sport	Race/Ethnicity	Gender	Sexual Orientation	Age
Cyrus	EN (M), EA (M)	Cross-Country	Black/African-American	Man	Bisexual	22
Denise	PN (M), PA (M), EN (S), EA (S)	Cross-Country	European Origins/White	Woman	Asexual	23
Fabiola	EA (M)	Cross-Country	European Origins/White	Woman	Heterosexual	20
Giselle	EN (M), EA (S)	Soccer	European Origins/White	Woman	Heterosexual	19
Hanna	PN (M)	Rowing	European Origins/White	Woman	Heterosexual	20
Lindsey	SA (S), EA (S)	Volleyball	European Origins/White	Woman	Heterosexual	20
Lora	EN (S), EA (S)	Water Polo	European Origins/White	Woman	Gay/Lesbian	19
Maria	SA (S), PN (3), EN (M), EA (S)	Track and Field	Black/African-American	Woman	Bisexual	20
Monique	PA (S), EA (M)	Track and Field	Black/African-American	Woman	Heterosexual	20
Reese	PN (2), EN (2)	Cross-Country	European Origins/White	Man	Bisexual	23
Tyra	SA (S), PA (S), EA (3)	Softball	European Origins/White	Woman	Bisexual	18

(table continues)

	Maltreatment Endorsed [a]	Sport	Race/Ethnicity	Gender	Sexual Orientation	Age
Vanessa	EN (M), PA (M)	Diving	Asian/Asian-American	Woman	Heterosexual	21
Wendy	PA (M), EN (M), EA (S)	Tennis	Asian/Asian-American	Woman	Pansexual	20

Note. [a] PN = Physical Neglect, PA = Physical Abuse, EN = Emotional Neglect, EA = Emotional Abuse, SA = Sexual Abuse, M = Moderate level of abuse endorsed, S = Severe level of abuse endorsed.

Theme 1: Positive Aspects of Playing Elite Sport

When initially asked about their sport participation at the beginning of the interviews, participants reported an overall positive experience. There were a multitude of reasons for these endorsements, but most were related to the process of participating (e.g., friendships forged), not the outcomes (e.g., winning). Participants appreciated being able to push themselves to compete at a high level while engaging in an activity in which they felt competent. Aspects like winning or specifically being better than other athletes were almost never mentioned. Instead, the participants seemed more focused on self-improvement. They especially emphasized their relationships with teammates and coaches, regardless of whether they played a team or individual sport. These overall positive aspects of playing elite sport were identified in the interviews by participants before I later brought up the context of participating in athletics while experiencing CM.

Category 1: Building Relationships

Participants discussed positive interpersonal connections with coaches and teammates over the course of their athletic careers. The participants highlighted the importance of these relationships in contributing to their positive experience of athletics and their motivation for participating. The quality of these relationships was the most important aspect of the participants' views on their relationships with teammates and coaches. Rarely did the

participants talk about how their coaches or teammates made them better athletes or helped the team win more; instead, they discussed holistic relationships characterized by fun and support.

Sub-Category 1: Coaches

Each participant highlighted their positive relationships with at least one coach. Only one athlete discussed the importance of a coach's knowledge about a sport and how they were able to teach their athletes sport-specific skills. Instead, most participants commented on at least one caring and holistic relationship that extended beyond a coaching relationship and oftentimes into a more familial relationship. Hanna referred to one coach as a "a father figure for our team;" Wendy saw one of her coaches as "an older brother figure to me;" Giselle identified two coaches that "became almost a parental figure."

There were also many mentions of the coach getting to know the participant as a person rather than just an athlete. Tyra shared, "We really respected him because we knew at the end of the day, he was there for us and for our futures, not even just like, to win ball games." This effort helped participants feel comfortable talking to their coach about concerns outside of sport. Hanna said:

> He was a great guy, great coach, but even more so he was a great person. In that he made a point to make us comfortable individually. And by that I mean like if we were having a bad day or rough day on the field like he would personally come and talk to us, pull us to the side and really know- let us know that he was there for us.

Similarly, Wendy said, "He was there not just as a tennis coach, but he would be there to just listen to me if I had some mental stuff going on." The connection that the athletes built with their coaches have often lasted to this day, even if their coach-athlete relationship ended years ago. Maria said, "If I text her, call her, she's going to answer me. She's always going to be there for me, and I know that for a fact."

Other characteristics of coaches that participant appreciated the most included positive

and honest communication, focusing on the development of the athlete rather than only on results, and empowering participants to believe in themselves. Maria reported perhaps the most meaningful relationship with one of her coaches, someone who went far beyond their duties as a coach. After experiencing homelessness and physical and emotional neglect from her parents for years, she reported:

> I moved in with him [coach]. He didn't ask for anything from my parents, not a dollar, not a dime. He took me in, put me in my own room. It was me, him, his wife, and his children. And he was like, "Hey, this is your room."

Sub-Category 2: Teammates

All participants discussed positive experiences with teammates throughout their athletic careers. Similarly with coaches, participants did not talk about teammates who increased their team's chance of winning. Instead, each participant talked about having fun and healthy relationships with their teammates, which in turn made their overall sport experience more fun. Maria said "I loved them [teammates] so much… They made my high school experience ten times better." Their connections with teammates motivated them to spend more time in sports, which in turn resulted in them improving through this additional time commitment. Reese shared, "This social aspect eventually led me to just want to be at practice more. So the more I practiced the better I was, and then you know, it snowballed from there."

Most participants viewed some of these teammate relationships as supportive such that that they could count on their teammates for support both inside and outside of the athletic context. Fabiola stated:

> You kind of go through a lot of really high highs and really low lows. And just being able to go through that with some of the same people really bonds people. I've had horrible races, or I've just felt like the worst about myself in the whole world and at the same time it's been when I've had the race of my life. They've seen you at all points. So they're not really going to judge you for whatever.

With the close connections that they built with their teammates and shared challenges through competition, they often saw their teammates as someone with whom they could open up and disclose intimate information. Vanessa said, “Sometimes I would get mental difficulties like overstressed [*sic*], or there was [*sic*] periods of time where I was depressed, and I didn’t feel alone, though. My friends were always checking up on me and my teammates were always there.”

The majority of participants discussed how they appreciated being a part of something bigger than themselves through playing sports, whether that was an individual or a team sport. Even in individual sports, such as cross-country, participants reported feeling like they were part of a community. Lindsey reported, “Part of being on a team makes it more meaningful. It gives you that sense of like I belong here. I want to be here. People [coaches and teammates] want me here.” Denise stated that her cross-country teams felt like “a good community of people” who could bond through their shared passion for running.

Category 2: Improving Oneself Through One’s Sport

Ten participants (76.92%) reported strong intrinsic motivation to push themselves to improve and participate at higher levels of competition. Participants talked more about being better versions of themselves rather than aiming to be better than other athletes. Instead, they wanted to play on the best teams so that they could reach their potential as an athlete. Cyrus said:

> It’s just kind of cool to see yourself improving after doing training you’ve never done before, or figuring out how your mentality works in a race and stuff. So, I think that’s really cool just to see yourself grow, reaching things you never thought you could.

Similarly, Fabiola reported, “It’s just kind of rewarding to, like, see all the work you put in bring out the outcome.”

For many participants, competing at the highest level possible was a driving factor for

their participation. Denise said, “As long as I can remember, I’ve wanted to take running as far as I could.” Collegiate athletics was typically the highest level that participants wanted to reach. As such, the aspiration of competing collegiately was a strong motivating factor to continue participation in sports. Through achieving goals and improving as athletes, participants discussed the sense of accomplishment and pride they felt. Giselle discussed what it was like to be offered a position on a collegiate team by a coach:

> I loved it [soccer] a lot, but I knew college was going to be difficult and hard, so I remember after school every single day I would practice instead of go with my friends somewhere, but I would practice every single day my freshman and sophomore year because I really wanted to get committed and then I got committed and probably that’s my biggest accomplishment in life and I just remember being so excited.

Category 3: Enjoying Oneself and One’s Sport

Eight participants (61.54%) discussed their enjoyment of playing their sport as a main motivator for participating and continuing to play at high levels. This aspect was often the reason that a participant started playing their specific sport. Giselle said, “I fell in love with it. I was on the rec team, and that’s all I wanted to do and where I wanted to be. I would always ask, ‘Oh, when’s the next soccer game?’”

Participants still had fun even when there were greater expectations on performance standards and time commitment as the participants got older. Giselle explained, “I loved it so much that I wanted to continue playing, and I loved it so much that it didn’t seem like a chore. That’s what I wanted to do.” For Hanna, it was quite simple: “I loved the sport and stayed with it.”

Category 4: Gaining Educational Opportunities

Eight participants (61.54%) talked about the educational opportunities that athletic participation could afford them, namely scholarships to play collegiately. Earning a scholarship

was seen as a way to improve their lives. Cyrus reported, “I thought it would really help me open doors for college. I was thinking potentially I could get a scholarship or go to a better school than I would have been able to otherwise.” Similarly, Tyra shared, “I used the sport in order to get to college, because otherwise I was just going to stay in my little area…So I was like softball is going to get me to a better school.” Maria was unsure about her ability as a track athlete and how much to commit to the sport until a coach told her, “I promise you that I’m going to get you into college for free.” This promise and her coach’s belief in her helped motivate the participant to believe in herself and set the goal of earning a scholarship.

Category 5: Excelling at the Sport

Seven participants (53.85%) discussed the importance of excelling at a sport for why athletics was a positive experience. Regardless of the competition level, they appreciated being able to engage in something in which they felt skilled and competent. Cyrus said, “I like being good at something.”

Excelling at their sport was a major motivating factor to start participating in a sport at a young age before the competition level increased. Their skill at their sport also motivated them to continue their participation. When Denise was asked about her motivation to continue participating in running and discontinue other sports, she explained, “Partially because it was what I was best at. I think that made it; I liked it.” Similarly, Fabiola, another runner, reported, “I just really liked running and I was better at it, too. So, I think it was kind of fun.”

Theme 2: Negative Aspects of Playing Elite Sport

Participants also endorsed negative aspects of sport participation. Even so, these negative aspects did not characterize the majority of their entire experience. It is important to note that no

athlete reported regretting their participation in athletics, nor did any athlete discontinue with collegiate sports before their eligibility ended at the time of the interviews.

Category 1: Disconnecting from Coaches and Teammates

Twelve participants (92.31%) experienced some type of disconnection with coaches and teammates at various points in their athletic careers, although these disconnections were typically less common and impactful than the positive connections previously discussed. The disconnections with coaches seemed to affect participations more than disconnections with teammates based on how much more specific and thorough participants were when discussing disconnections with coaches as compared to teammates. Participants identified and discussed specific coaches whom they disliked, whereas it was rare for participants to identify a single teammate. Instead, participants often spoke generally of not getting along with everyone over the course of their career.

Sub-Category 1: Coaches Mistreating Athletes

Ten participants (76.92%) reported experiences of disconnection with at least one of their coaches even within the context of mostly positive experiences with coaches during their athletic careers. The discontent with coaches was almost always a result of how the coach treated the participant. Very rarely did a participant talk about how their coach was lacking in terms of specific strategies or knowledge about the sport. The majority of participants specifically commented on ineffective communication that detracted from their experience. Lindsey explained that she disliked a coach because of "a lot of negative feedback, just like constant, and not constructive criticism but just like, 'That's wrong, that's not right.' Like, 'You're not good enough. You're not going to play.'"

Other specific instances of disconnection included participants thinking that their coach disliked them. Some participants reported experiences of not perceiving the coaches to care about their athletes, whereas others reported coaches that did not understand mental health. Fabiola said:

> I think sometimes she just didn't put people's mental health into perspective when she did certain things. My high school team had a really long history of a lot of girls having eating disorders and nothing would ever be done till [*sic*] it was like affecting the team or affecting the individual person's performance.

A few participants endorsed their coaches pushing the participant to compete in an unhealthy way, whether it was playing through an injury or practicing for too long at one time. Denise talked about a coach who wanted her to compete again as soon as possible after she broken her foot, even when Denise told her coach that she was still in pain after her protective boot had been removed during her recovery process. He told her, "I don't care if you wear the boot to the start line – I want you racing." Monique discussed the pressure that a gymnastic coach put on her to "push my body to limits that it couldn't go to 'cause [*sic*] I wasn't as flexible as most gymnasts are."

Sub-Category 2: Clashing with Teammates

Through their careers, 10 participants (76.92%) reported some type of disconnection with at least one of their teammates within the overall context of mostly positive experiences with teammates during their athletic careers. Most participants endorsed examples of interpersonal conflict with their teammates. Cyrus said, "You can get sick of each other sometimes. If you're incompatible personality-wise and then you have to keep being exposed to each other over and over again, it's not fun sometimes." Some participants said that their relationships with their teammates negatively impacted the participant's or the overall team's ability to compete at their highest level. Giselle stated, "I've played with teammates that [*sic*] are the most negative people

to ever exist, and it just doesn't make you feel good about yourself, doesn't make you feel confident, and I think that brings the team down."

Category 2: Feeling Pressure

Eight participants (69.23%) discussed the pressure and expectations that they experienced as an elite athlete. These participants were concerned about maintaining a high level of performance in order to continue playing at the elite level. Monique shared, "It's just like mentally challenging and it's like every year you're not sure if you're going to be able to get the certain skills to move up in the level." Similarly, Lindsey said, "I think during junior year when everyone is trying to be committed [to play collegiate sports] and figure out where they're going to go to school. There was so much external pressure." Participants also worried about measuring up to their peers. Hanna reported, "With rowing, they're going to sit you next to each other with the pure intent of one taking the other girl's seat."

This pressure to perform often came from coaches and parents. Wendy pointed to how "People wanted wins, especially if I was someone they considered at par with who I was playing, so there was always pressure." This contributed to her feeling "the pressure and anxiety of having to win matches to be considered something to be proud of, or something you are worthy of."

Theme 3: Impact of Childhood Maltreatment

Through their experiences of CM, the participants experienced a toll on their mental health and their connectedness with others outside of the context of their sport. Occasionally, sports were even a conduit for CM to manifest, especially emotional abuse. Some participants pointed to how these experiences helped them develop in a positive way, such as building

resilience, but participants focused much more on the various negative effects of CM in their lives.

Category 1: Interpersonal Concerns

Twelve participants (92.31%) reported their CM to negatively affect their ability to initiate and maintain healthy relationships. Specifically, they endorsed limiting their participation and openness in relationships after experienced CM. Lora, who experienced emotional abuse and emotional neglect from her parents and stepmother, said,

> I think I'm very precautious [*sic*] in my relationships with my friends. I'm more like, I wait for them to invite me places; I don't seek out, like, "Oh do you want to go do this?" I'll wait for them to ask me to do something.

Denise was physically abused by her mother as a child, who hit and shook her when she was angry. Her father was often neglectful, going through periods of time during her upbringing where he barely talked with her for months even while they were living in the same house. Both parents also emotionally abused her. She reported, "It's very hard to be vulnerable with people, because in the past when I've tried to share my feelings [with abusive parents] it comes back and bites me in the ass, or it's used against me." Vanessa shared, "I also not only felt neglected but neglected everyone else. I just didn't want to cause any trouble and I just didn't want to have any more hardship that I just kind of secluded myself."

On the other hand, some participants also said that they took on more responsibility for others after their CM. Reese stated, "So what my job was then to kind of be her rock and to help her and that eventually led to me not being helped" in reference to feeling like he needed to take care of his mother in the aftermath of his stepfather's suicide, which resulted in her neglecting her parental responsibilities. Similarly, others acted in accordance with other people's preferences rather than prioritizing their own needs. Cyrus said as a result of emotional neglect

and emotional abuse from his parents and being bullied by older brothers, “I also feel like I have a tendency to just look for what other people want from me and try to give that to them instead of acting genuinely just based on how I feel.”

Category 2: CM Making Sports Experience More Difficult

Almost all participants endorsed their experiences of CM making their athletic participation more difficult. Sports often became a conduit for emotional abuse. For example, some participants were verbally abused after a poor performance, which made them question their self-worth. Giselle said of her parents’ reactions after games, “If I didn’t perform well, I got screamed at. So then, that forced me to be like, ‘Okay, you’re not good enough.’”

If the emotional abuse was directed at the participant’s sport participation, some participants’ relationships with their sports became complicated. Wendy experienced physical abuse as well as emotional neglect and abuse from her parents. For example, her parents pressured her to restrict her food intake from an early age so that she could be in better physical shape for tennis. The maltreatment from her parents being related to her tennis performance so often meant that “It [tennis] was my escape route from some stuff [CM from parents], but it [tennis] was also what caused me stress – I’m not really sure how to…I’m still really confused about it.” Overall, though, she concluded:

> It’s more of the decisions I had to make because of tennis [moving to a different country to pursue a professional tennis career] that hurt my mental health rather than tennis itself hurting my mental health. It’s not fair of me to blame the sport because the sport only did good things for me.

On how her CM affected her athletic participation, Vanessa responded:

> As a child, it [CM] just made things harder and my whole brain was in a whirl because I go to gymnastics practice, and it was hard. And I just want to rest, and I get home and it’s either a family fight or it’s just as hectic as gymnastics practice.

The combination of participating in a demanding sport and experiencing a chaotic home

life, which included physical abuse and emotional neglect, left Vanessa feeling exhausted.

Category 3: Mental Health Concerns

Nine participants (69.23%) discussed the negative effect that their CM had on their mental health. Anxiety and depression were the most endorsed mental health concerns. Lindsey experienced constant emotional abuse from her parents (e.g., impossible standards that resulted in various punishments if not met), as well as sexual abuse from a peer. She said, “I was always like exhausted, like it didn’t matter how much sleep I got. I never felt rested, and I was always worried about like the next test or the next practice, competition.” Giselle reported, “definitely [my] depression just kept growing with the constant CM and the constant negative comments.” Lora stated she struggled with “anxiety, depression.”

Some participants also reported suffering from trauma symptomology. Maria reported, “I suffer from PTSD.” Wendy provided a specific example when she discussed her startle response to loud noises that stem from her chaotic family environment, explaining:

> Whenever someone was leaving the house after the argument they would bang the door, and just slam the door and leave. So now when I hear loud noises out of nowhere it triggers my anxiety – and I’ve had an anxiety attack or two because of loud noises out of nowhere.

Theme 4: Coping through Elite Sport

When participants were asked specifically about what it was like for them participating in sport while experiencing CM, they reported sports to have helped them cope with their CM. Participants emphasized different pathways for specifically why sports was so beneficial for them. Almost unanimously, participants explicitly stated that their life would be worse off without sports due to the various benefits that sports provided them throughout their experience of CM.

Category 1: Receiving Social Support from Coaches, Siblings, Teammates

Nine participants (69.23%) identified the importance of having social support through their athletic participation, which mainly stemmed from their relationships with their coaches and teammates. The participants' teammates and coaches sometimes knew about at least some aspects of the CM and were able to offer a supportive, safe relationship that helped the participants cope with their CM. Coaches seemed to serve as a positive attachment figure for some participants. For Hanna, her relationship with one of her coaches was revelatory, as she was not fully aware of what she was missing from her relationship with her parents. She said:

> It really was a great thing to just have that relationship with them and to have that fatherly concern in a way, but I think it was the first time that I was able to truly understand what I had lacked.

Fabiola talked about how important it was to have "someone there paying attention to you [me]" due to the neglect that she was experiencing at home from her parents. Maria endorsed a significant relationship with her coach, saying, "I met a coach who is a very important person in my life. He helped me throughout the trauma… Like, I probably wouldn't be here if it wasn't for him." She went on to say that she knew "he's going to make sure he does everything he can in his power to get me out of my situation."

Teammates also provided a space for participants to cope and heal. Regarding her teammates, Maria reported, "I love them so much. They helped me a lot throughout, like the things that I was going through, and like helping me focus on track." Vanessa stated, "That family aspect of my teammates that just built and grew stronger over time… and the more I learned about their lives, the more I was comfortable sharing my life and how I lived." Even if teammates were not aware of the extent what the participants were going through, their presence and connection was still important. Reese said:

> Just having them [teammates] around, being able to like just be normal and have fun and not think about something, just to kind of like get your thoughts away from whatever you're [*sic*] just going on in your head to like what's happening presently.

Category 2: Being Present in Sport

Nine participants (69.23%) discussed the importance of having an enjoyable activity on which they could focus their full attention. They appreciated how much sports helped them be in the present moment, directing their thoughts and emotions away from their CM and towards something they loved doing. Lindsey said:

> When I'm on the court, especially during competition, my brain is empty. It's just volleyball… I can just think about volleyball right now. I don't have to think about anything else [like CM]. I can just get better and enjoy being here.

For Giselle, "I wanted to be at soccer at any possible moment just so my brain could shut off and I could find peace and relaxation, not- not [*sic*] listen to all my negative thoughts." Through running, Denise said that she could not "sit there and dwell on whatever is eating at me." Instead, she could immerse herself in her running.

Category 3: Having a Safe Space

Seven participants (53.85%) viewed the athletic environment and physical space as safe, a place separate from their CM. Denise said, "It's [running] something they [parents] couldn't necessarily take from me. And that was part of what made it feel so safe." The athletic space provided them with relief from the CM they were experiencing, as they could be themselves and participate in something that they enjoyed without fear of CM. Participants used language to describe the athletic environment such as an "escape" (Maria and Lindsey), "sanctuary" (Denise), and an "out" (Tyra).

For Maria, the athletic environment allowed her to have her emotional needs met and feel validated for who she was. She said:

> I was homeless with my mom and my dad for six years. And track was literally just my escape, like it was. It was a beautiful thing for me because like at home…home – I don't have anything. I don't sleep. I don't have clothes. I use park bathrooms to wash myself up. Never had a shower. But when I was on the track, like nobody knew that. Everyone was like, "She's winning everything," and it was just like I could just forget about everything because everybody in the stands, the parents who I didn't even know they were just crazy when they were just like, "Oh my gosh. Like she's so amazing."

Category 4: Temporal and Physical Distance from CM

Seven participants (53.85%) discussed how athletics allowed them to literally escape their CM, even if it was only for a short amount of time. Tyra's mother sexually, physically, and emotionally abused her. She reported, "I would say the main thing was just whenever I needed to be away from the family, I was able to go work on softball." While experiencing homelessness, Maria shared that "track meets were great," but "when I went home, I didn't even have a home." The participants reported that the opportunity to avoid their CM often motivated them to spend more time participating in their sport, even in unofficial settings. Giselle said:

> We would play hours at the field … So I definitely think soccer is that outlet for all- for me and my younger sister as well, and it just helped us so much to just leave and not be in the house [where there was potential for CM].

Similarly, Reese reported:

> I remember hating trying to go home during that summer because it was like, I don't know what's gonna happen when I go home. I don't know if my mom's gonna be there. I don't know if she's gonna be awake. I don't know if she's gonna be drunk. I don't know if she's gonna hurt herself, you know? So it was always that something like I just wanna stay and keep running or just keep hanging out with my friends or teammates.

Category 5: Life Being Worse Without Sports

Eleven participants (84.62%) explicitly discussed how they believed that their life was generally better because of their athletic participation. Many participants stated that their mental health would have suffered more greatly without sports. Giselle said:

> I think soccer helped me not fall into depressive episodes. When I didn't play soccer, I didn't leave my bed. I think if I didn't play soccer, I wouldn't leave my bed. I would allow myself to fall into depressive episodes with no motivation to break them. Soccer has given me a reason to get out of bed or reason to keep going and without that I wouldn't have anything and definitely people in my life, my support systems, my sisters, my best friends have helped and I know they help, but I'm not even sure it would give me a reason to get out of bed and do anything. I just think I would just be a seriously depressed, unmotivated person without soccer.

Similarly, Hanna stated, "I think it [life] would be far worse mental health-wise."

Participants also wondered what life would have looked beyond their mental health being harmed. Vanessa reported, "I think if I hadn't done sports, it would have just made things a lot more difficulty for me, like mentally, academically, and physically." Fabiola said, "Maybe if I didn't have that kind of [sport] background, I could have just ended up going on a different route and using other coping mechanisms that would not be as healthy."

Theme 5: Conceptualizing Resilience

All participants completed the Connor Davidson Resilience Scale (CD-RISC), for which total scores and descriptives were calculated (M = 75.54, SD = 4.59). After finishing the CD-RISC at the end of the interview, the participants were asked what resilience meant to them. Ten participants (76.92%) conceptualized resilience as a form of persistence, and three participants (23.08%) conceptualized it as adjusting to adversity. There was a common belief that being resilient helped them overcome their CM to still accomplish what was important for them. Giselle, one of the majority of participants who conceptualized resilience as persistence, defined resilience as, "Just never giving up…There were countless times I could've just been like, 'Okay, I was a victim of this, I have this mental health problem,' and kind of give myself a crutch to lean on."

However, the participants recognized that how they viewed resilience might have been unhealthy as well. When Lindsey was discussing how she always thinks that she can achieve

something even in the face of hardships, she said, “Maybe it’s insanity, right? Like you keep doing the same thing over and over again and expect a different result, but that’s kind of how I’ve always felt like.” Tyra differentiated between how being resilient in athletics was helpful, but her resilience outside of athletics was sometimes detrimental, explaining:

> As an athlete, resilience is really important to me. As a person, I would say my resiliency has a lot of times made me ignore where I was at, mentally, and made me just keep pushing through on things that I didn’t need to push through and weren’t helping me.

Even though she may have developed greater resilience overall, she acknowledged that she became “really weak” in other ways and that it should not take such a difficult experience such as CM to increase resilience. As such, Tyra endorsed a “complicated relationship with resiliency.”

Table 4

Themes with Their Categories and Sub-Categories

Categories/Sub-categories	*n*	%
Theme 1: Positive Aspects of Elite Sport		
Building relationships	13	100.0
Coaches	13	100.0
Teammates	13	100.0
Improving oneself through one’s sport	10	76.92
Enjoying oneself through one’s sport	8	61.54
Gaining educational opportunities	8	64.54
Excelling at the sport	7	61.54
Theme 2: Negative Aspects of Sport		
Disconnecting from coaches & teammates	12	92.31
Coaches mistreating athletes	10	76.92
Clashing with teammates	10	76.92
Feeling pressure	8	61.54

(table continues)

Categories/Sub-categories	*n*	%
Theme 3: Impact of Childhood Maltreatment		
Interpersonal concerns	12	92.31
Preventing connection	9	69.23
Unhealthy expectations for relationships	4	30.77
People pleasing	4	30.77
Taking care of others too much	2	15.38
Childhood maltreatment making sports experience more difficult	12	92.31
Mental health concerns	9	69.23
Anxiety	7	61.54
Depression	5	38.46
Trauma symptomology	2	15.38
Theme 4: Coping through Elite Sport		
Life being worse without sports	11	84.62
Receiving social support	9	69.23
Teammates	6	46.15
Coaches	5	38.46
Siblings	1	7.79
Being mindful in sport	9	69.23
Having a safe space	7	61.54
Temporal and physical distance from maltreatment	7	61.54
Theme 5: Conceptualizing Resilience		
Persisting	10	76.92
Adjusting to adversity	3	23.08

CHAPTER 4

DISCUSSION

Participants consistently reported that athletics helped them manage the deleterious effects of childhood maltreatment (CM). The mechanisms for how athletics helped participants cope while their CM was occurring are similar to many of the pathways identified in the extant literature for how sports can help children cope with different types of traumas other than CM, such as singular traumas (e.g., Coombs, 2016). The pathways include receiving social support, being mindful, and having a safe space. However, these pathways could be even more important for CM survivors due to the ongoing and repetitive nature of CM. CM survivors are at a higher risk of numerous mental and physical health consequences, which include complex post-traumatic stress disorder (CPTSD; CWIG, 2013). The effects of CPTSD can be longer-lasting and more harmful than those of post-traumatic stress disorder (Herman, 1992). Thus, these pathways from sport may be even more necessary for CM survivors to combat the negative effects of CM and develop resilience.

Pathways Leading to Resilience While Childhood Maltreatment Occurred

CM has consistently been associated with impaired relationships through the lifespan (Bowlby, 1969/1982; Finzi et al., 2001). Similarly, many participants in this study talked about the negative effects that their CM had on their interpersonal skills and how they navigated relationships after their CM. For each participant, the social support embedded in the athletic environment proved integral to their perception of sports' healing nature. Social support itself is one of the most consistently cited protective factors in the literature for coping with trauma (e.g., Masten, 2007). Similar to the findings of previous studies, participants reported building social support systems through sports, which helped them cope with their trauma (Coombs, 2016;

D'Andrea et al., 2013; Machida et al., 2013). Whether a sport is individual or team based, athletes have the opportunity to connect with teammates and coaches. As such, having a built-in support system through participating in a sport that includes healthy relationships can be particularly beneficial for CM survivors, especially if their CM has caused them to feel different from others or less deserving of connection.

The perpetrators of CM are most often parents, which creates insecure attachment bonds with caregivers (Baer & Martinez, 2006; USDHHS et al., 2019). Positive attachment figures for childhood trauma survivors are a significant protective factor (Cicchetti, 2000; Schaefer et al., 2018). For many CM survivors, they lack these figures in their own household. The relationships that participants reported with their coaches seemed akin to positive attachment figures (Coombs, 2016; D'Andrea et al., 2013). Several participants used familial language, such as "father figure," to describe their coaches. For athletes who are constantly exposed to an unhealthy attachment figure at home, a positive adult attachment figure in the sport context could be especially significant.

Repeated trauma, particularly in childhood, can harm an individual's sense of self and healthy identity development (Herman, 1992). As such, athletes can benefit from a space that not only allows them to develop a sense of self in peace away from CM, but to feel proud of that identity for what they are able to accomplish in the athletic environment (Super et al., 2019). For most participants, the athletic environment was a safe space where they could authentically express themselves without fear of CM. Many participants viewed the athletic environment as a form of "escape," which is an idea that has been expressed by participants in previous studies who experienced other types of traumas (Coombs, 2016; Massey & Whitley, 2016).

While competing in sport meant their bodies were working to their physical capacity, the

majority of participants appreciated the mental break that sport offered them. They identified the benefits of focusing on the present moment when they were in the athletic environment and not being weighed down by thoughts and feelings about their CM. In essence, they appeared to be practicing mindfulness, which is the act of being aware of the present moment without judgment. Mindfulness is associated with numerous psychological and physical benefits (e.g., reduced anxiety; Davis & Hayes, 2011). Relishing the opportunity to mindfully engage in an enjoyable activity has been reported by collegiate athletes who survived childhood trauma in other studies (Coombs, 2016; Massey & Whitley, 2016). This finding could be even more important for youth athletes experiencing CM because the trauma is ongoing. Thus, the relief gained through not ruminating on the painful emotional states surrounding their CM and focusing on sport instead could be even more impactful than for someone who experienced a singular trauma. In this study, participants only discussed the practice of living in the moment in the context of their sport environment. However, practicing mindfulness during athletic participation may have helped them develop that skill and apply it during other areas of their life. Utilizing this skill outside of the sport context could have aided the participants in their overall efforts to cope with their CM.

Participants also discussed a pathway (i.e., temporal and physical distance from CM) that was unique to CM survivors as compared to survivors of singular traumas. The physical separation of the athletic environment from their perpetrators was particularly important for the participants. CM often leaves the victims feeling trapped due to the most common experience of CM occurring in the home (USDHHS et al., 2019). That sense of being trapped was reduced for the participants in this study due to the amount of time that was devoted to competing in their

sport. Combined with attending school during the day, participants were often able to spend the majority of their days away from their home.

Their status as elite athletes specifically might have contributed to an even greater reduction in feeling trapped compared to recreational athletes. Elite athletes must commit a greater amount of time to their sport than recreational athletes through more practices, competitions, and traveling to compete against other top competitors. Traveling around the country for different competitions meant that participants could go days at a time without having to be at home. These time and travel requirements appear to benefit maltreated youth by giving them more time and space away from their perpetrators than is typical for recreational athletes. Sports gave the participants an opportunity to not just distance themselves from their CM for a certain amount of time, but also to participate in something fun while they were, literally, in a safer place.

Corrective Emotional Experience Through Sport

Through these pathways (i.e., social support, being mindful, safe space, and time/distance from CM), participants were able to have a corrective emotional experience. The results of this study support the hypothesis that these resilient student-athletes participated in a healthy family system through sports, something which they lacked at home. Sports provided an opportunity for participants to step away from their unhealthy family system. Having an abusive parent was not a barrier to sport participation because parents of participants often encouraged the participants' engagement in sports. This encouragement allowed for considerable time to be spent in this new family system (i.e., the athletic environment).

Once in this new family system, coaches seemed to take on the role of positive attachment figures. Many participants reported a common experience amongst childhood

maltreatment survivors: not recognizing their maltreatment as abnormal. A positive relationship with a coach thus modeled what a healthy relationship with an adult should look like. Relationships with teammates can also be likened to relationships with siblings. These peers provided another layer of support within the system. Participants could not choose their teammates similar to how siblings are not chosen. Instead, participants had to figure out how to best work with their teammates in order to achieve a common goal, even if they were not natural friends.

With a healthy support system in place, participants were able to engage mindfully with a fun activity while enjoying the freedom to express themselves authentically. Play is important for the physical, social, cognitive, and emotional development of children (e.g., Graham & Burghardt, 2010; Pellis & Pellis, 2009; Sutton-Smith, 2008). Through sports, athletes are participating in a version of play. However, play might have been limited at home during the participants' abusive childhoods. Sports provided them an outlet where they could experience the numerous benefits of play.

Authenticity is also related to healthy development. It is especially important for emerging adults as they build their own sense of identity and enter the adult world where they are free to make their own decisions about relationships, jobs, and overall lifestyle (Arnett, 2014). Parenting styles can contribute to the development of authenticity. Parent-child relationships that are characterized by mutual understanding and autonomy can lead to greater authenticity (Kernis & Goldman, 2006). A strong sense of authenticity is associated with well-being across the life span (Sutton, 2020). Many participants in this study were not allowed the autonomy to develop freely at home, nor did they consistently feel empathy from their caretakers. In the safety of a supportive athletic environment, however, CM survivors could be

themselves and develop a sense of authenticity in a way that was missing in their original family systems.

General Aspects of Sport as Protective Factors

In general, participants endorsed participating in sports as a positive experience. Before their CM was broached in the interviews, participants described several reasons why they enjoyed sport and wanted to continue competing through college. These overall reasons for athletic participation map onto specific protective factors already identified in the literature for healing from trauma (i.e., social support, Masten, 2007; instilling a sense of achievement, Super et al., 2019; enjoyment of the sport, D'Andrea et al., 2013; opportunities to improve their current situation; Massey & Whitley, 2016). That is, these factors can increase resilience for participants before maltreatment or trauma even occurs.

For example, participants discussed playing sports because they wanted to spend time with their friends. As already discussed, social support is a protective factor from the negative effects of trauma (Masten, 2007). Learning and implementing new skills through sports has been identified in the literature as a means for trauma survivors to improve their self-efficacy and self-esteem (D'Andrea et al., 2013; Petitipas et al., 2004). Most participants in this study discussed their appreciation for the opportunity to grow as athletes throughout their careers. Beyond personal improvement over time, participants also endorsed the importance of excelling at their sport. This sense of achievement and pride can be a protective factor for those who experience childhood trauma (Super et al., 2019).

Next, almost all participants identified their enjoyment of the sport as their initial motivation to participate in that sport. This finding aligns with previous research, which suggests that playing sports gives those who experience childhood trauma the chance to have fun

engaging in a culturally popular activity (D'Andrea et al., 2013; Ley et al., 2018; Machida et al., 2013). The participants reported their relative skill at their sport helped increase this sense of fun and motivated them to continue participating in the sport.

Lastly, many participants recognized the educational opportunities that could be achieved through sport, namely earning scholarships or being admitted to a more academically prestigious college. Thus, they felt more motivated to participate in an activity that could help them improve on their current situation. Massey and Whitley's (2016) participants also discussed the motivation to play collegiately, which gave them hope to depart from an environment in which they experienced trauma.

Self-Determination Theory

When combined, these factors may provide maltreated youth with the three basic needs posited by self-determination theory (SDT; Desi & Ryan, 2012). According to SDT, meeting the three needs of autonomy, competence, and relatedness motivates people to grow and develop (Desi & Ryan, 2012). First, people must have a sense of autonomy, believing that they are in control of their lives (Desi & Ryan, 2012). This need can be particularly lacking for maltreated youth, who are so often powerless to do anything about their maltreatment. Sports provided the participants with a greater sense of control, both in the immediate and long-term. While participating, their environment was more controlled and predictable. They also felt free to express themselves authentically and did not have to worry about any punishments by their perpetrators. Participants' talent at their sport might also have given them a sense of autonomy as they were able to perform to a high standard and complete the necessary skills to excel at their sport. Looking ahead to the future, sports gave them the opportunity to earn a scholarship and take control over the next step of their life. Earning a college scholarship and moving out of the

home meant that they were no longer exposed to the setting of their CM.

Second, people must feel competent and achieve a certain level of mastery over their situation (Desi & Ryan, 2012). Participants spoke about how they appreciated being skilled at their sport. They both enjoyed improving upon their own previous performances as well as excelling overall. By competing at the collegiate level, participants proved to themselves that they were elite athletes who could compete against the best in the country. Explaining why sports help CM survivors develop resilience through the framework of SDT provides further support that sports may be less beneficial for recreational athletes compared to CM survivors who are elite athletes. Recreational athletes may not establish a sense of mastery of their sport, thus not feeling the same fulfillment and motivation to grow through athletic participation as elite athletes might.

Third, people must feel connected with other people (Desi & Ryan, 2012). Participants identified the importance of the social aspect of their athletic careers. Whether these relationships provided meaningful support in how they coped with their CM or the opportunity to just have fun with peers, connection was at the heart of participants' experience of sport. With these three needs met in the sport environment, it makes sense then that they felt motivated to continue participating in the athletic environment through college. Meeting these three needs may have also helped participants develop into well-adjusted, resilient young adults even in the face of tragic circumstances.

Challenges of Sport Participation While Experiencing Childhood Maltreatment

It is important to note that sports also introduced certain challenges to many participants' lives in regard to their CM, an idea that has also been supported by previous studies (Bergholz et al., 2016; Ley et al., 2018). For example, athletes have reported that their sport promoted

unhealthy behaviors (e.g., violence in football) that compounded the difficulties that they were experiencing in life outside of sport (e.g., violence in the community; Massey & Whitley, 2016). In the current study, participants discussed the complicated relationship between their emotional CM and their athletic participation. While they reported enjoying participating in their sport, this enjoyment was sometimes compromised by how their treatment from parents or coaches could be conditional on their athletic performance. This treatment appeared to lead to the development of perfectionism for many participants. They felt pressure to perform perfectly so that they would not be mistreated. This drive to be perfect may have contributed to greater motivation and commitment to achieving results, which the participants were able to do as evidenced by their collegiate athlete status. However, the effects of perfectionism over time are detrimental to mental health, as well as possibly physical health if athletes over-exert themselves in the pursuit of perfection (Koivula et al., 2002). This negative aspect of sport participation is understudied in the literature and warrants further research to explore nuanced relations through which negative effects may interact with the positive effects discussed above.

Resilience in Sport Culture

Additionally, the current study sought to explore participants' conceptualization of resilience after completing the Connor-Davidson Resilience Scale (CD-RISC). The CD-RISC mean score in this study was 75.54. There are no cut-offs scores for the CD-RISC that identify differing levels or categories of resilience. However, for context, the mean score for trauma-exposed college students in one study was 69.8, and the mean score was 73.0 for teenage athletes in another study (Gucciardi et al., 2011; Wamser-Nanney et al., 2017).

The vast majority of participants identified resilience as being akin to persistence and not quitting. There are different definitions of resilience in the literature, but none to my knowledge

that equate resilience and persistence. The conceptualization of resilience used in this paper ("dynamic process encompassing positive adaptation within the context of significant adversity") instead points to the positive changes that occur over time in the face of hardship (Luther et al., 2000, p. 543). This definition allows for initial and ongoing setbacks, as the positive adaptations are not necessarily immediate. Alternatively, the participants appeared to see resilience as maintaining the same level of performance and mentality both before and after adversity rather than suffering a setback and then bouncing back with positive adaptation. Their conceptualization also does not consider positive adaptations through the experience of adversity, but rather suggests that the individual's abilities before the adversity should be enough to continue through the adversity. In summary, the literature generally sees resilience as more dynamic (i.e., a process), whereas the participants perceived resilience to be more static (i.e., a trait).

The participants' conceptualization of resilience may stem in part from their experience of CM. Participants, like many CM survivors, spoke about not realizing that what they were experiencing at home was abnormal compared to most other children. Additionally, CM survivors have little to no control over their CM. Without knowing any better and lacking the power to make changes in their lives, they had no choice but to persist and push through what was happening.

Though this view on resilience may be adaptive at times in the athletic environment (e.g., continuing to try their hardest when losing during competition), it could also have negative consequences on physical and mental health. The participants' conceptualization of resilience fits with the general athletic culture and its attitude towards mental toughness. The "increasing training loads and performance demands" in athletics has caused athletes to push themselves,

physically and mentally, like never before (Henricksen, 2020, p. 554). The participants in this study spoke about the messages that they received throughout their athletic careers, such as from their coaches, that would promote this notion that resilience and persistence are synonyms. For example, one of the participants reported one of her coaches expected her to push through an injury from which she had not yet fully recovered. The high demands of elite sport combined with athletic culture that glorifies pushing through adversity at all costs can have dangerous effects on athletes' physical and mental health (Bauman, 2016). The culture in athletics around what it means to be tough and resilient also contributes to the stigma that exists in athletics about mental health and athletes under-utilizing mental health resources (Bird et al., 2018; Wahto et al., 2016).

Clinical Implications

The possible benefits of sport for youth who experience CM are important to disseminate because youth who are exposed to adverse childhood experiences (ACEs) are less likely to participate in sports (Noel-London et al., 2021). In particular, efforts should be made to ensure that the specific populations that are more impacted by CM (i.e., children of color, children from lower-income backgrounds, children with disabilities; Centers for Disease Control and Prevention, 2021; USDHHS, 2019) and are less likely to participate in sports (i.e., girls, children of color, and children with disabilities; Sabo & Veliz, 2008; van Brussel et al., 2011; Women's Sports Foundation, 2011) would be targeted to receive sport interventions. As many children enjoy sports, the fun aspect of sports might make them "more engaging and motivating" than other interventions like psychotherapy (D'Andrea et al., 2013, p. 740).

However, sports should not be viewed as a panacea, especially in the context of CM. Coaches should become familiar with trauma-informed coaching practices (Bergholz et al.,

2016). This knowledge could be particularly important for coaches who are working with athletes undergoing emotional CM. For those athletes who are experiencing emotional abuse and neglect, it is imperative that coaches provide a correctional emotional experience and not add to their emotional turmoil.

Coaches may also benefit from general training and education in recognizing and responding to CM. As previously stated, those experiencing CM often do not recognize that they are experiencing abuse and are even less likely to report it. States differ in terms of whether coaches are mandatory reporters for CM. However, with the connection that coaches have to their athletes, they have a responsibility to advocate for those experiencing CM. Whereas some coaches were at least somewhat aware of the participants' family life (e.g., one coach took a participant in to live with him because he knew that she was experiencing homelessness with her family), only one participant explicitly said that a CPS intervention was initiated during their upbringing, and it was not done so by a coach. As was the case with the participants, most youth who are experiencing maltreatment at home are not identified or helped in a direct way.

It is important to promote the notion that resilience does not mean that athletes must persist through every challenge with no setbacks or help. This message aligns with the current trend of destigmatizing mental health in athletics. Over the last few years, more professional athletes (e.g., Michael Phelps, Simone Biles) are speaking out about their mental health struggles and working to reduce the stigma in athletics about mental health. These professionals have discussed the pressure that athletes face to persist through challenges even at the expense of their mental health. As more athletes share their stories about their mental health difficulties, it will also be important for those in charge (e.g., coaches, administrators) and support staff (e.g., strength and conditioning coaches, athletic trainers, sport psychologists) to provide similar

messaging about prioritizing mental health and reframing what resilience can look like in the athletic environment. This prioritizing of mental health and reframing of resilience may increase the number of athletes utilizing mental health resources.

Limitations

Future research may benefit from the identification of the limitations in this study. Relying on self-report data to screen participants may have contributed to different types of bias reporting. For example, social desirability bias might have caused underreporting of trauma experiences and trauma-related symptoms. Because of the retrospective nature of this study, recall bias could have influenced participants' responses. Also, participants might have varied in what they believe characterizes CM and how they interpret its intensity. Specifically, what constitutes as CM according to the Childhood Trauma Questionnaire (CTQ) may not agree with how various cultures define CM.

The sample might also have introduced limitations. There was a lack of gender diversity, with the sample being majority cis-gender women. Furthermore, while several sports were represented, almost half of the sample were runners (either cross-country or track and field). Due to the exploratory nature of this study, inclusion criteria were not explicit about gender or type of sport or CM. However, heterogeneity of the sample meant that we could not follow-up on certain questions, such as whether the influence of sport participation varied by the specific type of CM experienced.

Future Directions

Due to this study's general inclusion criteria across demographics and experiences, future studies may benefit from recruiting a much larger sample size and/or utilizing a targeted recruitment method so that there may be a better understanding of how specific demographics

and experiences may interact. This study included all types of CM included in the CTQ. Thus, focusing exclusively on a specific type of CM might help determine if the development of resilience through athletics differs according to the type of CM experienced. Since findings in this study suggest that emotional abuse made it more difficult to be successful in athletics, quantitative studies could compare outcome measures across different types of CM. Quantitative studies could also examine the different levels of CM according to the CTQ (i.e., Low, Moderate, and Severe) and how these may affect the potential benefits of sport. This study included both "Moderate" and "Severe" levels without differentiating between the two categories during data analysis. Researchers could separate a sample of CM survivors who play sports into sub-samples of "Low," "Moderate," and "Severe" levels of CM. Then, they could compare them on various outcome measures, which might help identify the CM survivors who could most benefit from athletic participation.

While participants in this study who competed in traditionally individual sports (e.g., track and field) reported feeling like they were still a part of a team atmosphere, there is inherently less competition between teammates in team-based sports and a greater emphasis on teamwork. As social support has been identified to be an important protective factor for CM, future researchers may want to examine differences in individual and team-based sports as they relate to building resilience after experiencing CM. Researchers could also explore if there are differences between elite and recreational athletes in terms of the extent to which their sport participation enhances their coping with CM.

Furthermore, there may be more to learn about the coach's role in the process of CM survivors building resilience through athletics. Each participant in this study discussed positive relationships with their coaches. Given that athletes' perceptions of their coaches are important

factors in their relationship with their sport, it may be important to determine specific coaching styles and approaches in elite sports that are most associated with positive outcomes for CM survivors (Turman, 2003; Weinburg & Gold, 2003). Researchers could incorporate attachment theory into this exploration to build off the hypothesis from this study and others (e.g., Coombs, 2016) that coaches serve as key attachment figures for maltreated youth.

This study hypothesizes that CM survivors may benefit from sports above and beyond that of children who survived singular traumas. Due to the ongoing and repetitive nature of CM, the protective factors of the sport environment (i.e., social support, being mindful, safe space, and time/distance from CM), may be more important for CM survivors. Quantitative studies could compare survivors of CM and singular childhood trauma survivors on various outcomes to examine any differences in the extent of sport's positive effects.

There are several studies examining how mindfulness can improve athletic performance (e.g., Birrer et al., 2012). However, there is a lack of literature that assesses whether athletic performance can improve the practice of mindfulness. Due to the wide range of physical and psychological benefits of practicing mindfulness, it may be important for researchers to explore whether sports can enhance mindfulness.

Researchers may also want to further test and explore the hypothesis that a sport environment can model a healthy family system for survivors of CM where the perpetrators were primary caregivers. In future qualitative studies, researchers may want to ask further questions about CM survivors' relationships with their parents and the perceived effect of these relationships. Researchers could then ask about their relationship with their coaches and dive deeper into how a coach may act as a positive attachment figure in place of parents. Similarly, questioning survivors about their relationships with teammates and noting any differences or

similarities to relationships with siblings could also flesh out this hypothesis. Finally, questions about the role of play and authentic expression during upbringing may also be important. If play and authentic expression were not encouraged in their family of origin, then an athletic environment that does encourage these concepts might prove impactful.

This study identifies several pathways for how sports can help CM survivors develop resilience and cope with CM. By exploring hypotheses from this study, future researchers can work towards gaining a better understanding of the pathways so that their benefits can be maximized. Specifying and comparing future samples (i.e.., by sport type, level of CM, type of CM, level of athlete) could also provide important context into how to most effectively tap into the potential of sports as an intervention for CM.

APPENDIX A

FULL LENGTH LITERATURE REVIEW FROM PROPOSAL

Introduction to Childhood Maltreatment

The Child Abuse Prevention and Treatment Act (1974) defines child abuse and neglect as "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm" (Section 5101). According to the most recent report published by the U.S. Department of Health and Human Services (USDHHS) on child maltreatment, about 656,000 children were abused or neglected across the United States in 2019 (USDHHS et al., 2019). As this number is limited to official reports made by child protective service (CPS) agencies after their investigations in response to reports of child maltreatment, the actual number of child abuse and neglect victims is likely much higher.

For example, there were approximately 4.4 million referrals reported to CPS agencies of purported maltreatment involving an estimated 7.9 million children in 2019 (USDHHS et al., 2019). Only 2.4 million reports were then deemed appropriate for a CPS response, many of which received just an alternate response (which concludes that there was no maltreatment or perpetrator without a full investigation). Once a formal investigation begins, there must be evidence of the abuse, such as physical wounds or children willing to disclose about the abuse, in order for the maltreatment to be officially substantiated. If there is not enough evidence, the case is considered to be unsubstantiated, which accounts for over half of investigations (USDHHS et al., 2019). Barriers to making the initial referral to CPS agencies include medical providers and mandatory reporters wanting to believe the caregiver, not recognizing that a child's presenting concern could be due to abuse or maltreatment (Tiyyagura et al., 2015), and worrying about the impact that making a report would have on the professional-client relationship (Bunting et al., 2009).

According to confirmed CPS reports, neglect was the most common type of child maltreatment in 2019, impacting 491,344 children (USDHHS et al., 2019). Affecting 114,800 children, physical abuse was the second most prevalent type of child maltreatment (USDHHS et al., 2019). In addition, 61,008 children were sexually abused (USDHHS et al., 2019). Official reports classify abuse or neglect that do not fall into these three categories as "other," which can include threatened abuse or caretakers being addicted to drugs or alcohol. This "other" category of abuse or neglect impacted 44,608 children (USDHHS et al., 2019). These statistics reflect only how many children were maltreated, not how many incidents of the maltreatment that occurred in the child's life. While the majority of children (554,320) experienced one type of maltreatment, 101,680 children experienced at least two maltreatment types (USDHHS et al., 2019). Emotional maltreatment is not tracked by child protective services, making it perhaps the most under-reported form of childhood maltreatment (Barnet et al., 2005). However, it is considered the crux of child maltreatment, existing separately but also underlying the other forms of maltreatment (Navarre, 1987). In a study by van Harmelen and colleagues (2010), 93% of adults who endorsed child abuse reported suffering from emotional maltreatment. The results also suggested that emotional maltreatment was more predictive of an individual developing depression or anxiety than physical or sexual abuse (van Harmelen et al., 2010).

Consequences of Childhood Maltreatment

Due to the complex nature of childhood maltreatment, survivors are at a higher risk for a multitude of negative outcomes, such as post-traumatic stress disorder (PTSD) (Child Welfare Information Gateway, 2013). A traumatic event is defined by the Diagnostic and Statistics Manual-5 (DSM-5) as "exposure to actual or threatened death, serious injury, or sexual violence" (American Psychiatric Association, 2013, p. 271). These events, which may be experienced

directly, witnessed, or learned, can have various physical, mental, social, and emotional consequences. The DSM-5 outlines criteria that must be endorsed for someone to qualify for a PTSD diagnosis, which include intrusive symptoms, avoidance of stimuli associated with the traumatic event, negative change in cognitions and mood, and significant increase in arousal and reactivity (APA, 2013). Due to child maltreatment victims being exposed to recurrent and sustained maltreatment, the potential consequences can be more insidious. In fact, many child maltreatment victims will not meet criteria for PTSD (Denton et al., 2017).

The complexity of recurrent and sustained trauma has led to the development of complex post-traumatic stress disorder (CPTSD), a disorder that has been published in the most recent revision of the International Classification of Diseases – 11th Revision (Courtois, 2008; World Health Organization, 2019). CPTSD includes six factors, three of which originate from standard PTSD symptoms (Maercker et al, 2013). These are reliving the trauma, avoidance, and heightened threat levels (Maercker et al, 2013). The three unique factors are extensive emotion dysregulation, negative self-concept, and interpersonal turmoil (Maercker et al, 2013). Three areas of disturbance reflect CPTSD's greater impact compared to PTSD (Herman, 1992). First, the symptoms are more drastic and multifarious (Herman, 1992). Second, there is a greater likelihood that the survivor will experience personality changes, such as a loss of identity (Herman, 1992). Finally, the survivor is more vulnerable to being exposed to further harm (Herman, 1992).

Childhood maltreatment survivors are at increased risk for CPTSD, as well as other psychiatric disorders such as depression, anxiety, and borderline personality disorder (CWIG, 2013). Head trauma from physical abuse can damage brain development (CWIG, 2013). Cognitive difficulties may ensue after experiencing maltreatment, which could impair school

performance and social functioning (CWIG, 2013). Undergoing childhood maltreatment is related to insecure attachment bonds with caregivers (Baer & Martinez, 2006). Insecure attachment styles as a child can then impair relationships with others across the life span (Bowlby, 1969/1982; Finzi et al., 2001). Youth who experience abuse or neglect may suffer from emotional dysregulation, which may last through future development stages (Messman-Moore et al., 2010). Maltreated children also have a higher probability of problem behaviors, which include risky sexual behaviors, substance use, and illegal activities (CWIG, 2013). Fang and colleagues (2012) project that the total lifetime economic burden from child abuse could be around $585 billion per year. Finally, and most tragically, abuse or neglect can result in death, killing approximately 1,840 American children in 2019 (USDHHS et al., 2019). In general, victimized children suffer from higher mortality rates than children who do not experience abuse or neglect (Rovi et al., 2004).

Risk Factors Versus Protective Factors

Researchers in the trauma field initially focused on the connection between risk factors and the manifestation of trauma-related symptoms as the key to learning how mental health disorders develop and how to treat them (Cicchetti, 2010; Masten, 2001). A risk factor increases the probability that an ordinarily unwanted outcome will occur (Offord & Kraemer, 2000). Thus, it exists before the unwanted outcome occurs (Offord & Kraemer, 2000). However, researchers now take into account the impact of protective factors as well to help answer the question of why people who experience similar traumas might be affected differently (Cicchetti, 2010; Masten, 2001). Protective factors can mitigate threats that typically lead to a greater likelihood of unwanted outcomes (Rutter, 1985). They can also increase the probability that positive outcomes will occur (Offord & Kraemer, 2000).

While most people will experience at least one traumatic event in their life, the majority will not develop a mental health disorder (Copeland et al., 2007; Kilpatrick et al., 2013; Levine et al., 2009). The likelihood of enduring a traumatic event throughout the lifetime is 89.7%, (Kilpatrick et al., 2013), and almost 70% of people will have experienced one by the age of 16 (Copeland et al., 2007). While the probability of experiencing a trauma is high, the likelihood of being diagnosed with PTSD by age 75 is 8.7%, and the 12-month prevalence rate is 3.5% (APA, 2013). It is important to reemphasize, however, that experiencing a traumatic event does increase the likelihood of developing mental health concerns (Rubonis & Bickman, 1991). Resilience has been identified as a potential protective factor that may help clarify the discrepancy between the large number of people who experience trauma and the smaller number of people who suffer from mental health disorders after experiencing trauma.

Resilience as a Protective Factor

This paper will use Luthar and colleagues' (2000, p. 543) definition of resilience: a "dynamic process encompassing positive adaptation within the context of significant adversity." Rather than being an innate trait lasting a lifetime (Cicchetti, 2010), resilience is the process of positive adaptation. This adaption traces a developmental path influenced by various factors that fluctuate across the life span (Cicchetti, 2010). To establish whether resilience is in effect, there are two considerations (Luthar et al., 2000; Masten, 2001). First, an individual must experience an event that challenges healthy functioning. Second, the individual has to achieve some manner of positive adaptation in spite of undergoing the event. There is an internal adaptation element of resilience that involves the effort to manage and sustain psychological well-being, as well as an external adaptation element that involves the effort to connect with the surrounding environment as before (Masten, et al., 2009).

Childhood maltreatment is related to lower resilience in adults (Nishimi et al., 2020). There are protective factors, however, that can boost resilience and combat the deleterious effects of childhood maltreatment. After initially only focusing on how individual attributions impact resilient outcomes, researchers broadened their investigations (Cicchetti, 2000). They realized that resilience was a complex process that was influenced by a multitude of factors, not just the individual. Thus, researchers have distinguished three categories of factors that aid in the buildup of resilience, which are individual factors, family factors, and environmental factors (Luthar et al., 2000; Masten & Garmezy, 1985). Individual traits related to increased resilience include problems-solving skills, self-regulation skills (Masten, 2007), low neuroticism (Collishaw et al., 2007), and high self-esteem (Cicchetti et al, 1993). An individual's coping strategies, such as positive reframing and problem-focused coping, can also act as protective factors (Folkman & Moskowitz, 2000).

In regard to family factors, healthy relationships with well-functioning adult family members are associated with resilience outcomes (Cicchetti, 2000; Schaefer et al., 2018). Specifically, perceived parental care is important for developing resilience (Collishaw et al., 2007). A well-functioning home environment and parents in a healthy relationship can also serve as protective factors (Masten et al., 2009). Positive relationships with adults other than parents, such as other family members, can be especially important for children from tumultuous home environments (Masten et al., 1990). The third category, aspects of the community, include public safety, health care and its availability, and effective and accessible schools (Masten et al. 2009). Within schools, a healthy student-teacher relationship is protective for youth experiencing adversity (Smokowski et al., 1999). Interpersonal relationships with well-adjusted peers in the community are also important in developing resilience (Masten, 2007). Specifically, a sense of

belonging is related to lower psychological distress, higher educational engagement, and less risky alcohol use in adults who experienced childhood maltreatment (Corrales et al., 2016; Torgerson et al., 2018). Aspects of culture that are related to resilience include religion and identification with a particular culture (Unger, 2008). An individual's culture can influence how one perceives a trauma as well as how one reacts to it (Ungar et al., 2007).

While resilience has become an increasingly popular topic of research over the past decades, researchers still have their critiques of it as a construct (e.g., Fletcher & Sarkar, 2013; Kolar, 2011; Luthar et al., 2000). The absence of a standard definition for resilience is one of the most common critiques (Fletcher & Sarkar, 2013; Kolar, 2011; Luthar et al., 2000). However, most definitions share the two-step timeline of positive adaptation occurring after the experience of adversity (Fletcher & Sarkar, 2013). In light of this, researchers need to be transparent and explicit in how they define resilience (Luthar et al., 2000).

There is also debate about whether resilience is a process or a trait (Fletcher & Sarkar, 2013; Luthar et al., 2000). When conceptualized as a trait, resilience is regarded as a characteristic that a person has and can use to positively cope with an adversity (Connor & Davidson, 2003). Those who conceptualize resilience as a process, however, argue that the context of the adversity will partly determine the existence and salience of various risk and protective factors (Fletcher & Sarkar, 2013). The adversity itself will also be different in each situation. Thus, depending on the adversity and what risk or protective factors are active, people may respond differently (Fletcher & Sarkar, 2013). Just like defining resilience, Luthar and colleagues (2000) advise researchers to be clear about their stance on whether it is a process or a trait.

Furthermore, there are various resilience theories, but none that can capture the

experience of all adversities by all populations (Fletcher & Sarkar, 2013). Several theories have similarities, such as recognizing resilience as a process or noting the impact of the interplay of various risk and protective factors on whether an individual demonstrates resilience (Fletcher & Sarkar, 2013). However, theories differ on which factors are more significant, especially depending on which population is being considered (Fletcher & Sarkar, 2013). Fletcher and Sarkar (2013) suggest that researchers form new theories of resilience from original data.

Positive Impact of Sports

Trauma has been studied from many different angles, including its risk factors, consequences, protective factors and recovery pathways. Researchers have recently become interested in how sport participation can resist and repel the negative impact of trauma (e.g., Bergholz et al., 2016; Coombs, 2016; D'Andrea et al., 2013). Before outlining the literature supporting sport participation as an intervention for positively adapting to a trauma or maltreatment, I will summarize the literature on the other physical, mental, and social benefits of sport participation for the general well-being of children and adolescents (Eime et al., 2013).

First, it is well-established that playing sports is associated with improved physical health (National Center for Chronic Disease Prevention and Health Promotion, 1996; USDHH, 1996). For example, the physical activity through playing sports lowers the risk of heart disease and improves cardiovascular health (National Center for Chronic Disease Prevention and Health Promotion, 1996). By participating in physically demanding sports, children and adolescents are more likely to build lean muscle, burn fat, and achieve a healthier weight (USDHH, 1996). Athletic participation has also been correlated with better school performance (Fejgin, 1994; Sabo et al., 1989). According to multiple sources (e.g., Sabo et al., 1989; Fejgin, 1994), athletes have better grades and less disciplinary issues than non-athletes. Also, compared to females who

do not participate in sports, females who do are more likely to graduate high school and endorse more commitment to attend and graduate college (Sabo et al., 1989). Furthermore, sport participation in childhood and adolescence is related to fewer risky behaviors (Eitle & Eitle, 2002; Page et al., 1998). Specifically, adolescent female athletes have fewer sexual partners (Eitle & Eitle, 2002), smoke fewer cigarettes, and consume fewer illegal drugs than adolescent female non-athletes (Page et al., 1998).

Athletic participation and physical exercise have also been related to improved mental health (Strauss et al., 2001). More physical activity is correlated with higher self-esteem (Strauss et al., 2001), and for high school females with low grades, participating in sports is a protective factor for depression (Gore et al., 2001). More specifically, participating in sports three to six hours a week is associated with reduced depressive symptoms amongst adolescents compared to those who participate in sports zero to two hours a week (Sanders et al., 2000). Playing sports reduces the risk of suicide for female high school athletes (Page et al., 1998). A study by Ley and Rato Barrio (2011) suggested that women who experienced some type of violence in Guatemala increased their self-esteem, relaxation, and motivation after participating in sport therapy. Finally, children can learn valuable life skills through athletic participation (Branta & Goodway, 1996; Petitpas et al., 2004). Specific programs, such as Play It Smart, use sports intentionally as a platform for children and adolescents to acquire skills that will apply to their lives outside of sport (Petitpas et al., 2004).

Playing sports can particularly aid the positive development of socially vulnerable children (e.g., Hermens et al., 2017; Super et al., 2018; Super et al., 2019). These children face certain stressors in their day-to-day life, such as poverty (Hermens et al., 2017). These stressors can contribute to adverse interactions with societal institutions (e.g., family, school, local

neighborhood, or the judicial system) and subsequent negative feelings towards these institutions as well as personal relationships (Vettenburg, 1998). Residing in a community with a high crime rate or getting bullied at school are examples of these adverse interactions (Super et al., 2018). Social vulnerability may result in suffering from loneliness or low self-esteem (Super et al., 2018).

The sport environment, however, can serve as a safe place where socially vulnerable youth can have fun, escape from their adverse interactions with societal institutions, learn about their life, and develop their sense of purpose within it (Super et al., 2019). Athletic participation by socially vulnerable children was positively correlated with pro-social behavior, subjective health, and well-being (Super et al., 2018). Super and colleagues (2019) also reported that setting and accomplishing goals within sports can help in attaining these positive effects. Finally, every study in an 18-study systematic review that examined sports programs' impact on life skill development in socially vulnerable children discovered that at least one life skill was enhanced after attending the sports program (Hermens et al., 2017). While the lives of socially vulnerable youth do not necessarily involve specific trauma or maltreatment, these children live in settings where risk factors for exposure to trauma or maltreatment are increased. Thus, if sport participation serves as a protective factor for this population of children, it makes sense to explore how sport participation may build resilience for youth who have specifically been exposed to trauma or maltreatment.

Populations Benefiting from Sport Participation after Trauma

Much of the literature related to sports, trauma and coping focuses on trauma that occurs within the sport environment, such as a sports injury (e.g., Galli & Vealey, 2008; Poglog & Eklund, 2006; Udry et al., 1997). However, the trauma focus of this project will be childhood

maltreatment, which is more likely to occur outside of the sport environment (but is also possible to occur within it as well). The next section will outline populations who effectively used sports as an intervention to combat the negative effects of trauma.

Sport-related interventions have been utilized to help veterans cope with combat trauma (Caddick & Smith, 2014; Hammermeister et al., 2012). A systematic review by Caddick and Smith (2014) determined that various sports and physical activities were effective intervention tools that improved combat veterans' mental health through active coping, reduced PTSD symptomology, sense of achievement, and greater motivation for living. Furthermore, combat veterans' sport-related psychological skills, such as goal-setting and energy management, are related to greater self-perceived resilience (Hammermeister et al. 2012). The increased resilience from these skills can in turn provide a buffer against the impact of future trauma (Hammermeister et al., 2012).

Related to combat, researchers have also identified the positive benefits of sport participation for civilian survivors of war or terrorism (Ley et al., 2017; Ley et al., 2018; Tim et al., 2017). Ley and colleagues (2017; 2018) discovered that a sport intervention increased war and torture survivors' ability to experience "flow." By experiencing the "here and now" state of flow, people can spend less time dwelling about the past and fearing the future. Living in the "here and now" can be especially important for survivors of trauma who suffer from intrusive thoughts or flashbacks about the trauma they experienced. In a case study, sport participation helped an individual diagnosed with PTSD after enduring war and torture by increasing self-esteem, independence, interpersonal connection, and enjoyment (Ley et al., 2018). Finally, in a qualitative study conducted months after the Boston Marathon bombing, participants who competed in the 2013 Boston Marathon reported using running as a coping strategy to "reflect,

escape the stress of their lives, and share their experiences with understanding running partners" (Timm et al., 2017, p. 46).

People who have experienced traumatic injuries are another population of interest in this field, as researchers have discovered that sports can play a role in their recovery and adaptation to their lives post-injury (Kampman & Hefferon, 2020; Machida et al., 2013). Male quadriplegics utilized wheelchair rugby to help them physically and psychologically adapt to their acquired spinal cord injury (Machida et al., 2020). In a similar vein, sports provided the opportunity for identity development and achievement in British Paralympic athletes who also acquired their physical disabilities (Kampman & Hefferon, 2020).

Lastly, childhood trauma survivors have been a target population in this area of research, although the type of trauma under examination in these studies have varied greatly (e.g., Coombs, 2016; D'Andrea et al., 2013, Easterlin et al., 2019). In a longitudinal study examining the impact of adverse childhood experiences, adults who had played team sports in middle and high school were less likely to develop anxiety or depression than adults who did not play team sports (Easterlin et al., 2019). Girls in a residential treatment setting who participated in a sports-based intervention improved more on measures of prosocial behavior as well as internalizing and externalizing symptoms compared to girls who did not participate in a sports-based intervention (D'Andrea et al., 2013). In a qualitative study, all seven participants reported that playing sports aided their recovery from childhood traumatic events, the majority of which were singular traumas (Coombs, 2016). Youth in detention facilities have also been identified as a population of childhood trauma survivors that may benefit from sport participation, as separation from primary caregivers can be traumatic (Denton et al., 2017). Sport interventions have been

demonstrated to aid youth in their rehabilitation process and cope with the environment of a detention facility (Meet & Lewis, 2014; Parker et al., 2014; Van Hout & Phelan, 2014).

Sport Factors Contributing to Resilience

Similar to the current wave of trauma research that is uncovering the pathways to building resilience and not just identifying protective factors, researchers have been examining specifically how sports can build resilience in childhood trauma survivors (e.g., Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). First, participating in sports offers traumatized children the opportunity to build their social support (Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). Social support is a well-established protective factor against the deleterious effects of trauma (Masten, 2007). Sports are inherently cooperative, necessitating participants to work together and communicate. Thus, trauma survivors can bond with peers through their sport participation (D'Andrea et al., 2013). A built-in support network could be especially significant for youth who might isolate themselves in reaction to trauma, especially if their trauma has caused them to feel different than others or less deserving of connection. Specifically, sports can imbue in participants a sense of belonging, where the participants feel embraced for who they are and that they deserve to be in that setting (Ley et al., 2018; Massey & Whitley, 2016; Meet & Lewis, 2014).

Sport participation also provides children a platform through which to learn goal-setting (Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). The childhood trauma survivors in Coombs' qualitative study (2016) endorsed higher resilience through learning how to set goals and subsequently work to accomplish those goals within the sport context. Goal-setting can produce multiple adaptive outcomes, such as improving motivation, confidence, and focus as

well as reducing stress (Burton & Raedeke, 2008). While goal-setting is an important skill in the sport environment, it is a generalizable skill that can apply to other areas of life (Coombs, 2016).

Self-esteem is often negatively impacted by trauma (CWIG, 2013; Ley et al., 2018). By training and improving the skills relevant to a sport, participants can develop self-efficacy and increase self-esteem (D'Andrea et al., 2013; Petitipas et al., 2004). Super and colleagues (2019) reported that sport participation can help children cultivate an identity in which they take pride, which is crucial since trauma can significantly damage an individual's identity (Herman, 1992). Repeated trauma can even destroy a person's sense of identity completely (Herman, 1992). Conversely, sports can spark a new sense of identity in trauma survivors, such as that of an elite athlete (Kampman & Hefferon, 2020).

Furthermore, sports can provide participants with positive attachment figures (Coombs, 2016; D'Andrea et al., 2013). As already mentioned, healthy relationships with well-adjusted adults are an important protective factor for childhood trauma survivors (e.g., Cicchetti, 2000; Schaefer et al., 2018). In sports, athletes have the opportunity to bond with their coach, who can serve as a healthy adult attachment figure (D'Andrea et al., 2013). For athletes with an absence of healthy attachment figures in their lives, a positive adult attachment figure in the sport context could be particularly significant (Coombs, 2016).

The athletic environment itself can be healing (e.g., Coombs, 2016; D'Andrea et al., 2013; Machida et al., 2013). Sports can help athletes cope with the physiological or emotional impact of trauma. If children endorse hyperarousal symptoms, the physical nature of sports may provide a safe opportunity to release this extra energy (D'Andrea et al., 2013). Coombs (2016) indicated that sports could provide a healthy outlet for athletes to vent their frustration stemming from their trauma, if the venting occurs through the appropriate activities within the sport. The

sport environment can also provide an escape, both literally and figuratively for athletes (Coombs, 2016; Massey & Whitley, 2016; Meet & Lewis, 2014). Playing sports offers athletes the chance to dream about leaving their traumatic surroundings and playing sports collegiately or professionally, giving them hope (Massey & Whitley, 2016). In a more tangible sense, athletic facilities serve as a welcome change of scenery for youth in detention centers (Meet & Lewis, 2014; Parker et al., 2014; Van Hout & Phelan, 2014). The athletic environment may provide for a physically safer atmosphere when there is a backdrop of violence in the community (Sobotova, 2016). It may also provide for an emotionally safer atmosphere where athletes can forget about their trauma and instead direct their full attention to their sporting activities (Coombs, 2016).

Lastly, playing sports provides survivors of childhood trauma the opportunity to have fun and participate in a culturally popular activity (D'Andrea et al, 2013; Ley et al., 2018; Machida et al., 2013). In 2019, about 73% of children aged 6-12 and 69% of children aged 13-17 participated in sports at least casually (The Aspen Institute, 2020). Sports are ingrained in American culture, meaning that many children are likely to be interested in sports. Playing sports like millions of other children, as well as playing sports even after trauma, can create a stronger sense of normalcy in the life of a childhood trauma survivor (Ley et al., 2018; Machida et al., 2013). As many children enjoy sports, the fun aspect of sports might make them "more engaging and motivating" than other interventions like psychotherapy (D'Andrea et al., 2013, p. 740).

Risks of Participating in Sports

In examining the role of sports after experiencing trauma, a thorough discussion must include the risks to participating in sports after a traumatic event (Bergholz et al., 2016; Ley et al., 2018). Sports is by no means a panacea for all those who have suffered trauma. Sports might actually elicit physical or emotional feelings related to trauma (Ley et al., 2018). For example,

physical pain experienced in sport might trigger memories of a trauma that caused physical pain (Ley et al., 2018). Moreover, physiological sensations, such as elevated heart rate, might remind athletes of their trauma (Ley et al., 2018). Also, if a child's peers are performing better than they are in sports, the child's self-esteem may be negatively impacted, which may already have been reduced after experiencing a trauma (Ley et al., 2018). Sports, such as football, may encourage the use of physical force in a manner that is akin to violence, which could be psychologically damaging for someone who has already suffered physical violence (Whitley et al., 2016).

It must be said that the sport environment may actually be the root cause of maltreatment or trauma. For example, athletes may be subject to emotional abuse by their coaches (Stirling & Kerr, 2008). Infamous incidents of childhood maltreatment occurring within the sport context include team doctor Larry Nassar sexually abusing American gymnasts and college football coach Jerry Sandusky sexually abusing boys from a non-profit organization that included athletic participation. Hence, while the literature typically identifies the benefits of sports in the trauma framework, trauma or maltreatment can still stem directly from sport participation.

Coaches carry a great amount of power in developing the nature of the sport environment for the athletes. Bergholz and colleagues (2016) detail guidance for trauma-sensitive coaching. This guidance includes coaching in pairs, centering skill development, and collaborating with the athletes (Bergholz et al., 2016). Coaching in pairs allows for more one-on-one attention and greater support for all athletes (Bergholz et al., 2016). Emphasizing skill development allows the athletes to focus more on what is within their control, such as their effort, rather than the outcome of a competition. Collaborating with the athletes can increase their sense of autonomy as well as their engagement.

Bergholz and colleagues (2016) also give advice for a trauma-sensitive sport environment

that coaches can develop, which they can do through stressing emotional and physical safety, giving the choice of long-term participation, acting as healthy adult attachment figures, fostering a team culture that focuses on relationships and teamwork, making positive traditions like cheers and warm-ups, and preserving a format that has consistent schedules and rules. Fostering a caring environment can be impactful, as athletes who characterize their environment as caring have higher rates of prosocial behaviors within the sport context and improved emotion regulation skills (Gano-Overway et al., 2009). Finally, it is important to consider culture when working with childhood trauma survivors because cultural backgrounds will impact how youth manage trauma (Bergholz et al., 2016). For example, Andrés-Hyman and colleagues (2004) discovered that the effects of childhood sexual abuse varied according to ethnicity and sexual orientation. Integrating pertinent cultural factors can increase athletes' sense of trust and safety in their sport environment (Bergholz et al., 2016).

Purpose of this Study

Studies on the intersection of sports and trauma have rarely examined if (and how) childhood maltreatment survivors who became elite athletes utilized sport in their coping of their sustained and repetitive trauma. This study's population will be Division I athletes; this status suggests that these individuals have demonstrated a certain level of resilience. A constructivist grounded theory approach negates the development and testing of hypotheses, instead relying on the data collected within the study to generate a theory (Lingard, 2008). Thus, the purpose of this study is to determine whether Division I athletes used their respective sports to help them build resilience while/after experiencing childhood maltreatment. If so, how? The possible benefits of sport for childhood maltreatment survivors would be important to be disseminated because youth who experience adverse childhood experiences are less likely to participate in sports (Noel-

London et al., 2021). Adverse childhood experiences are a broad category of traumatic or stressful events that include three groups: abuse, neglect and household challenges (CDC, 2018). Furthermore, are these pathways similar or different to the proposed pathways in the literature that discuss how athletics increases resilience after experiencing a singular trauma?

Diversity and Equity Considerations

This study takes diversity and equity into account on two different levels: who is being maltreated and who is playing sports. In terms of maltreatment, children of color are disproportionately abused or neglected. While 13.7% of children in the United States are African-American, they accounted for 20.9% of childhood maltreatment cases (USDHHS, 2019). American Indian or Alaska Native children have the highest rates of maltreatment within their own population, with 14.8 American Indian or Alaska Native children being abused or neglected out of every 1,000 children of the same race. African-American children have the second highest rate, with 13.8 African-American children being maltreated out of every 1,000 African-American children. Children from lower income backgrounds, who are more likely to be children of color, are also at greater risk of abuse or neglect (Centers for Disease Control and Prevention, 2021). It is important to highlight the significant role that systemic racism plays in contributing to these statistics. In Fontes' *Child Abuse and Culture: Working with Diverse Families* (2015), she states:

> The most effective way to reduce abuse among those at the bottom of the social ladder may well be to provide jobs, quality housing, and income subsidies, thereby addressing the stresses of poverty, rather than simply offering home visitation and/or parenting classes. Addressing social injustice, rather than presumed parental deficiencies, requires greater commitment. It requires us to admit that if some of us were forced to live in the circumstances in which some of our clients live, we too might hurt our children, and certainly might be unable to provide for them adequately. (p.188)

Having a disability is also a risk factor for experiencing maltreatment (USDHHS et al., 2019.). Sullivan and Knutson (2000) estimate that children with disabilities are 3.4 times more likely to

be abused than non-disabled children.

As this literature review has demonstrated, there are numerous mental, physical, social, and academic benefits for people to participate in athletics. On top of these general benefits, researchers have demonstrated that sports can be a valid intervention (when implemented appropriately) for different populations of people healing from various traumas. While sports may have the ability to improve people's lives, not everyone has equal access to this possibility.

Gender provides a salient example. Girls start playing sports later than boys, play less, and stop playing sports earlier than boys (Sabo & Veliz, 2008). In 2019, 39.1% of boys aged 6-12 years played sports on a regular basis, while 32.7% of girls did the same (The Aspen Institute, 2020). In U.S. high schools, boys have about 1.13 million more opportunities to play sports than girls (National Federation of State High School Association, 2019). This underrepresentation continues for women at the collegiate level, as there are only 8.6% of Division I institutions offering the number of athletic sports to female student-athletes that would be proportional to their enrollment rates, while 87% of the three NCAA divisions disproportionately offer more athletic opportunities to male student-athletes compared to their enrollment rates (U.S. Department of Education, 2019). Barriers that may limit participation include gender role beliefs (Zarrett et al., 2019), lack of female role models in sport (Female Leaders in Sport Survey, 2019), and lack of media coverage of women's sports (Cooky et al., 2015).

There are large disparities within sport participation when it comes to race as well. Children of color are underrepresented at the grassroots level of sports (Women's Sports Foundation, 2011). In 2019, 40.0% of White children aged 6-12 years played a sport on a regular basis, while 34.8% of Black children, 34.9% of Asian-American/Pacific Islander children, and 33.9% of Hispanic children did the same (The Aspen Institute, 2020). Due to fewer resources at

majority-minority high schools, students of color have less access to sports than White students, who are more likely to attend high schools with a greater population of White students and more resources (National Women's Law Center, 2015). Student-athletes of color are also underrepresented at the collegiate level compared to their enrollment rates (Women's Sport Foundation, 2011). Factors that may hinder participation for athletes of color include "economic limitations, societal stereotyping, and cultural barriers" (Women's Sport Foundation, 2011, p. 5). Economic limitations disproportionately effect children of color but serve as a barrier for children of all races, as children from higher socioeconomic backgrounds are more likely to participate in sport program outside of school that require payment (Boufford et al., 2006).

Children with disabilities take part in competitive and recreational sports at lower rates than non-disabled children (van Brussel el al., 2011). For example, whereas about one-third of people without physical disabilities do not participate in sports, almost two-thirds of people with physical disabilities choose not to participate (USDHHS, 2010). Barriers to their participation include transportation, accessibility difficulties, cost, and lack of appropriate facilities (Jaarsma et al., 2014). However, participating in sports can improve the physical and mental health of children with disabilities, as well as their social support (Blinde & McClung, 1997; Campbell, 1995; Martin & Smith, 2002), demonstrating the potential importance to increase this population's athletic participation.

This study is addressing the inequities detailed above by first bringing attention to them. More significantly, if the participants in this study report athletic participation to be helpful in their coping with childhood maltreatment, then the results would call for the intentional dissemination of sports as an intervention. In particular, efforts should be made to ensure that the

populations that are more impacted by maltreatment and are less likely to participate in sports would be targeted to receive sport interventions.

APPENDIX B

DEMOGRAPHIC QUESTIONS FROM SURVEY

What is your gender?

- Man
- Woman
- Transgender Man
- Transgender Woman
- Gender Fluid
- Other (please explain) *(text box)*

How old are you (in years)?
(text box)

What sport do you play?
(text box)

How would you best describe your sexual orientation?

- Asexual (not having sexual feelings/attraction towards others)
- Bisexual
- Gay/Lesbian
- Heterosexual (Straight)
- Questioning
- Sexually Fluid
- Other (please explain) *(text box)*

What is your ethnic-racial background?

- Asian/Asian American
- Black/African-American
- White/European-American
- Hispanic/Latino/a/x
- Middle Eastern/Northern African
- American Indian/Alaska Native, Indigenous/First Nation
- Native Hawaiian or Other Pacific Islander
- Biracial (please specify) *(text box)*
- Other (please specify) *(text box)*

APPENDIX C

RECRUITMENT EMAIL

Dear Participant,

Hello! My name is James Rushton, and I am a fifth-year doctoral student at the University of North Texas's Department of Psychology. We are conducting a research project titled "A Qualitative Investigation of Resilience Among Elite Performers Who Survived Childhood Trauma." Your email was identified because you are an NCAA athlete. The purpose of this study is to investigate different life experiences gained through participation as an athlete as they are associated with one's psychological well-being.

I am writing to invite you to participate in this study. If you choose to participate, please click the link below to be directed to Qualtrics, a secure website, to review the consent information and complete the survey. If you complete this survey and consent to share your contact information, you will be entered into a drawing to win one of 5 Amazon e-gift cards. It will likely take approximately 15 minutes to complete, and all survey responses will be anonymous. If you choose to share your contact information to be notified about the drawing, that information will be stored separately from your survey responses. You may skip any questions that make you uncomfortable during the screening questionnaire.

If you are eligible based on your responses to the survey and consent to being contacted, a member of the research team will reach out via email to schedule a time to conduct an interview with a trained clinician online through Zoom. Every participant who partakes in an interview for the second part of the study will earn an Amazon e-gift card. The interview will ask specific questions regarding the answers you provided in the first part of the study. It will be scheduled at your convenience, take about 60-90 minutes, and will be video/audio recorded. You will complete a brief Qualtrics questionnaire at the conclusion of the interview, which will take approximately 5 minutes to complete.

So to participate, please click this link ${l://SurveyLink?d=click%20here}.

It is important to remember that participation is voluntary. If you have any questions, please contact me (email: jamesrushton@my.unt.edu; phone: [REDEACTED] or the principal investigator, Dr. Patricia Kaminski (email: patricia.kaminski@unt.edu; phone: [REDACTED]. If you no longer wish to receive emails ${l://OptOutLink?d=click%20here}.

Thank you for your time and consideration,

James Rushton, M.S.
Counseling Psychology Doctoral Candidate
University of North Texas

APPENDIX D

INFORMED CONSENT

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits, and risks of the study and how it will be conducted.

TITLE OF RESEARCH STUDY: A Qualitative Investigation of Resilience Among Elite Performers Who Survived Childhood Maltreatment

RESEARCH TEAM: Primary Investigator: Patricia Kaminski, Ph.D., UNT Department of Psychology (email: Patricia.Kaminski@unt.edu Department Phone: 940-565-2650). Dissertation project under the supervision of Dr. Kaminski. Doctoral Students: James Rushton, M.S., UNT Department of Psychology (email: JamesRushton@my.unt.edu) & Olivia Knizek, M.S., UNT Department of Psychology (email: OliviaKnizek@my.unt.edu). Key Personnel: Will Archuleta, Lauren Kemble, Rey Contreras, and Sam Schlebach

You are being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you and will any answer any questions you might have. It is your choice whether or not you take part in this study. If you agree to participate and then choose to withdraw from the study, that is your right, and your decision will not be held against you.

You are being asked to take part in a research study about the role of sport or music in the development of resilience after experiencing childhood maltreatment. This study involves investigating different life experiences gained through participation as a musician or athlete as they are associated with one's psychological well-being. You will be asked to complete a questionnaire and have the opportunity to complete a 60-90 minute interview if you are eligible. More details will be provided in the next section.

You might want to participate in this study if you want to share your experiences with music or athletic participation as a survivor of childhood maltreatment. However, you might not want to participate in this study if you do not have the time to complete a questionnaire or participate in an interview.

You may choose to participate in this research study if you are at least 18 years old and either currently a) an NCAA collegiate athlete or b) enrolled in a University as a performing arts music major, and have experienced maltreatment during your childhood.
The reasonable foreseeable risks or discomforts to you if you choose to take part is that the reporting of such events has the potential to cause discomfort which you can compare to the possible benefit of discussing personal resilience and adaptation.

DETAILED INFORMATION ABOUT THE RESEARCH STUDY: The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY: You are being asked to take part in a research study about the role of sport or music in the development of resilience after experiencing childhood maltreatment. This study involves investigating different life experiences gained through participation as a musician or athlete as they are associated with one's psychological well-being.

TIME COMMITMENT: The duration of the screening phase of this study is approximately 15 minutes, and the duration of the interview phase is approximately 1-1.5 hours. The total participation time should be approximately 2 hours across both phases.

STUDY PROCEDURES: There are two parts to this study. *The first part is what you will be completing today.*
The first part involves completing a consent form, a demographics questionnaire, and questionnaires about life experiences and trauma using Qualtrics software, which will take about 5-15 minutes. You may skip any questions that make you uncomfortable during the screening questionnaire.

If you qualify based on your responses in the first part and consent to participating in a future interview, you will be contacted by the research staff for the second part of the study, which will include scheduling an interview with a trained clinician online through Zoom sometime in the next 1-4 months. This interview will ask specific questions regarding the answers you provided in the first part of the study. This interview will be scheduled at your convenience and will be video/audio recorded. You will complete a brief Qualtrics questionnaire at the conclusion of the interview, which will take approximately 5 minutes to complete.

For the second part of the study (Interview phase), you will interact with one of the research staff online for scheduling, the Qualtrics questionnaire, and for the interview.

Below is a description of the two different procedures used in this study

Screening Phase: Questionnaires
What you will be completing today: the screening phase of this study will involve a series of online questionnaires (through Qualtrics) to learn a little bit about your background, including educational history, age, race/ethnicity, and level of participation in musical/athletic performance. These questionnaires will also ask you about memories for particular traumatic events in your life. Examples of such traumatic events could include sexual assault, neglect, or verbal abuse.

Interview Phase
If you qualify based on your responses to what you complete today *and* consent for the second phase, you will be contacted to schedule a time to conduct a one-on-one confidential interview with a researcher using a secure Zoom platform sometime in the next 1-4 months. During this interview, you will be asked specifics about emotional and/or traumatic life experiences you reported in the first part of the study. Your responses will be recorded by the interviewer, and this interview will be video and audio recorded to verify responses by the research team and stored confidentially. At the conclusion of this interview, you will complete a brief questionnaire to learn more about your ability to cope with stress and adapt to different situations. You can skip any questions that make you feel uncomfortable and can withdraw your consent to participate at any time.

AUDIO/VIDEO RECORDING: *For part two only* (interview phase) of this study, you will be video and audio recorded. This recording will be used for verification of responses only. Prior to

coding, these recordings will be kept with other electronic data in a secure UNT computer account. Once coding is completed, the video recording will be destroyed. Your video recording will not be used in presentations or publications, and your recording will not be viewed by anyone outside of the research team.

☐ I agree to be choose audio recorded and video recorded during the research study.

☐ I agree that the audio recorded transcription as appropriate can be used in publications or presentations.

☐ I do not agree that the audio recorded transcription as appropriate can be used in publications or presentations.

☐ I do not agree to be audio recorded or video recorded during the research study.

You may participate in the screening phase of the study by completing the questionnaire if you do not agree to be audio or video recorded.

POSSIBLE BENEFITS: You may benefit directly from this research study through discussing personal resilience and adaptation. Taking part in this study may help researchers inform better clinical interventions for those that have experienced childhood maltreatment.

POSSIBLE RISKS/DISCOMFORTS: The reasonable foreseeable risks or discomforts to you if you choose to take part is that the reporting of such events has the potential to cause discomfort. During the screening and Interview phases, you will be asked to complete measures asking you questions about traumatic life experiences and ability to cope with stress. These measures include questions about events such as physical assault and sexual assault, childhood abuse, neglect, and witnessing interpersonal violence. This is necessary to examine the role and type of past trauma as a potential variable of interest in our study on resilience.

Remember that you have the right to withdraw any study procedures at any time without penalty, and may do so by informing the research team. If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty. The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. The interviewers will be clinicians trained to respond to mental health emergencies and complete safety risk assessments. There will also be an on-call clinical psychologist available during all interviews. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, helpful resources include the UNT Counseling and Testing Center located in Chestnut Hall at (940) 565-2741, and outside resources include but are not limited to: Denton County MHMR crisis hotline at 1-800-762-0157; UNT Mental Health Emergency line at (940)-565-2741. Additional resources include a national mental health crisis hotline should you wish to speak with a mental health professional. The website is http://crisiscallcenter.org/get-help-247 and the hotline is 1-800-273-8255. This hotline is available 24 hours a day, 7 days a week, 365 days a year. They also can be reached via text messaging. This service is open to anyone and is provided free of charge. The UNT Survivor Advocate connects students who have been impacted by violence to resources (counseling, health, safety, academics, legal, etc.), and act as their advocate. The UNT Survivor Advocate can

be reached by emailing SurvivorAdvocate@unt.edu or calling 940-565-2648. If there is an emergency, please call the police at 911 or the Denton County Friends of the Family 24-hour crisis line at 940-382-7273.

Participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured by the research team. As with any use of electronic means to store data, there is a risk of breach of data security. Participation in this online survey involves risks to confidentiality similar to a person's everyday use of the internet and that there is always a risk of breach of confidentiality.

COMPENSATION: Participation in this study will involve no cost to you. Participants who complete the first phase of the study (the questionnaires through Qualtrics) will be entered into a drawing for 5 $50 Amazon gift cards. Winners of the random drawing will be contacted via email and receive the gift card at the conclusion of the study (approximately 6 months after survey completion).

All participants who consent and qualify for an interview will be compensated with a $30 Amazon gift card upon completion of the interview.

CONFIDENTIALITY: Efforts will be made by the research team to keep your personal information private, and disclosure will be limited to people who have a need to review this information. All electronic data collected from this study will be stored in a secure location on the UNT campus and/or a secure UNT server for at least three (3) years past the end of this research. Specifically, these data will be stored in a password protected external hard drive in the UNT Scientia Conquisitor Lab in Terrill Hall room 351 in a locked file cabinet or on an encrypted and password protected computer. Research records will be labeled with a numerical code and the master key linking participant names with codes will be maintained in a separate and secure location. Participation in this online survey involves the potential for the loss of confidentiality similar to a person's everyday use of the internet.

Due to Senate Bill 212, all University of North Texas employees are required to report all events of sexual harassment, sexual assault, dating violence, or stalking that involve a current student or employee. These reports are made to the University's Title IX Coordinator. You should understand that some of the information you provide during this study will be disclosed by the researchers to the appropriate authorities, if required by the law.

The results of this study may be published and/or presented without naming you as a participant. The data collected about you for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB would first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained.

While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records, as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA (federal regulating agencies), the reviewing IRB, and sponsors of the study. Part one of this study uses

third-party software called Qualtrics and is subject to the privacy policies of the software noted here: https://www.qualtrics.com/privacy-statement/. Part two of this study will use a third-party software called NVivo and is subject to the privacy policies of the software notes here: https://www.qsrinternational.com/privacy-policy

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY: If you have any questions about the study you may contact Patricia Kaminski (Patricia.Kaminski@unt.edu). Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565-4643, or by email at untirb@unt.edu.

CONSENT:

Continuing with the study indicates that you have read, or have had read to you all of the above.

- You confirm that you have read the possible benefits, risks, and/or discomforts of the study.
- You understand that you do not have to take part in this study and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits.
- If you are a student, your decision whether to participate or to withdraw from the study will have no effect on your grade or standing in your course.
- You understand why the study is being conducted and how it will be performed
- You understand your rights as a research participant and you voluntarily consent to participate in this study; you also understand that the study personnel may choose to stop your participation at any time.

By checking the box, I am indicating that I have read the consent information and agree to take part in the research

☐

By continuing with this study, you agree to participate in this study

APPENDIX E

DEBRIEFING FORM

Study Title: A Qualitative Investigation of Resilience Among Elite Performers who Survived Childhood Trauma

Primary Investigator: Primary Investigator: Patricia Kaminski, Ph.D., Director: Scientia Conquisitor Lab

Contact: Email: Patricia.Kaminski@unt.edu, Phone: 940-565-2650, Office: Terrill Hall 374

Purpose: You are being asked to take part in a research study about the role of sport or music in the development of resilience after experiencing childhood maltreatment. You were recruited as a current or former musical performer within an Undergraduate or Graduate level Department of Music or a current or former NCAA Collegiate Athlete over the age of 18, and have experienced trauma during your childhood.

Method 1: Online Questionnaires and Interview
This study involved an online questionnaire to learn a little bit about your background, including educational history, age, race/ethnicity, and level of participation in musical/athletic performance. You also completed questionnaires and underwent an interview related to traumatic life events and how you coped with difficult situations in life.

The researchers tried to prevent any problem that could happen during this experiment, however we acknowledge that some information we asked about was emotional in nature. If at any point after participation you feel uncomfortable, we would encourage you to contact the primary investigator. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, helpful UNT and outside resources include:

- The UNT Counseling and Testing Center located in Chestnut Hall
- Denton County MHMR crisis hotline at 1-800-762-0157
- The UNT Mental Health Emergency line at (940)-565-2741

You can also reach a national mental health crisis hotline at 1-800-273-8255 or at http://crisiscallcenter.org/get-help-247

Dr. Kaminski and UNT Scientia Conquisitor Lab staff *thank you very much* for your participation in this study, and we look forward to your continued participation in the future! Please let us know if you have any questions.

APPENDIX F

INTERVIEW SCHEDULE AND GUIDELINES

Questions are listed in the order that the interviewer will ask them:

After the participants consents to the interview:

1. Please tell me about your history in (music/sport) participation
    a. When did you begin involvement in (music/sports)?
    b. What types of sports/creative arts programs were you involved in?
    c. How did you get started in participation of (music/sports)?
    d. What about your experience motivated you to continue to participate?
    e. How were your relationships with people you interacted with during your time participating in sports/music? (i.e. coach, mentor, instructor, teammates, band mates).
        i. What about those relationships were supportive/influential? (Added on May 4)
        ii. What about those relationships made them negative? (Added on May 4)
    f. If you participated in an individual or team sport, how do you think your experience may have differed if you were on the other? (Added on June 13)

2. When did your experience of CM occur, how long did it continue for?
    a. Who was involved in the event(s)?
    b. How do you remember this event impacting you at the time?
        i. What, if any, are the current impacts of this experience in your life?
    c. How have you coped with this experience?
    d. How did your maltreatment affect your relationships with others? (Added on June 16?

3. What was it like for you participating in sport/music during/after experiencing childhood maltreatment [use participant's language of the CM experience]?
    a. Clinician will respond based on the content of the participant's experience and answers to avoid leading questions and minimize researcher bias.
    b. How do you think your life would have looked different while maltreatment was occurring without sports/music? (Added on June 13th)
    c. What about the sport/music environment made coping with your maltreatment more challenging? (Added on May 4th)
    d. Do you have any siblings who suffered from similar mistreatment? (Added on May 4)
        i. If so, did sports/music play a role in how they coping with their mistreatment?

After the participant completes the CD-RISC at the end of the interview:

4. That scale you just completed measures your resilience. What did it bring up, if anything, for you while completing it? Specifically in regard to what we've spoken about today, or anything in general.
    a. How would you define resilience/what do resilience mean to you? (Added on June 6)

INTERVIEW NOTES:

If the participant does not understand the question, the interviewer will reword the question to help the participant understand. If the participant gives a brief answer that does not provide sufficient information, the interviewer will utilize techniques that they have learned and employed in their mental health training, such as minimal encouragers, in order to assist the participant in elaborating further. The interviewer will also ask clarification questions when the participant gives an unclear or ambiguous answer so that the participant's answer is

understandable. The interviewer will also reflect back and summarize the participant's responses in order to ensure that the interviewer is understanding what the participant is trying to relay.

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