

THE IMPACT OF COMPLEX POST-TRAUMATIC STRESS
DISORDER AND STRUCTURAL VIOLENCE
ON CHILDREN IN IMPOVERISHED
URBAN COMMUNITIES

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ABSTRACT

American children growing up in poor urban communities experience a disproportionate amount of direct and indirect violence in addition to the challenges of growing up with limited resources. Due to high amounts of physical and structural violence in these communities, urban youth are at increased risk for complex post-traumatic stress disorder (C-PTSD) and its associated sequelae, such as asthma, obesity, diabetes, and behavioral problems. Evidence demonstrates that sexual abuse and repeated interpersonal trauma leads to more intense symptomatology than traditional post-traumatic stress disorder (PTSD), and traumatic events in early childhood predisposes one to a C-PTSD reaction. This literature review of complex trauma serves to further validate the need for modern psychiatry to recognize C-PTSD as a diagnosis and to identify treatment interventions for this vulnerable population.

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CHAPTER 1 - INTRODUCTION

Health is embedded in complex systems often beyond the individual's control. It is more than just a list of medical diagnoses or medications, and is integrated into socio-economics, politics, history, and many other aspects of life. The notion that health goes beyond physical wellness was introduced in 1943, and likely even earlier, by Abraham Maslow's hierarchy of needs. Maslow proposed that the ultimate goal of the individual is self-actualization, which can only be met when firstly one's physiological needs are met, safety needs are met, social belonging needs are met, and lastly esteem needs are met. For each subsequent need to be fulfilled the prior one must first be (Maslow, 1943). Other theories have proposed similar models, such as a the biopsychosocial approach to medicine introduced by psychiatrist George L. Engel in 1977, or the use of Adverse Childhood Experiences to predict future health and social issues as studied by Kaiser Permanente and the Centers for Disease Control and Prevention (Felitti, et al. 1998). A child's environment shapes how they see the world and their ability to achieve health and flourish in it. All environments are not created equal, though. In this literature review of complex post-traumatic stress disorder (C-PTSD), I will argue that American children living in poor, urban environments are systematically disadvantaged through exposure to disproportionately high amounts of overt and structural violence, leading to higher rates of C-PTSD and its associated sequelae. C-PTSD is a proposed psychiatric disorder to describe the symptomatology patients exhibit after experiencing prolonged, repeated, interpersonal trauma. The notion of C-PTSD first came about in 1992 through observations by American psychiatrist Judith Herman. While post-traumatic stress disorder (PTSD) was an accepted diagnosis at that time, she felt it inaccurately captured

the intense symptoms of patients experiencing chronic trauma, such as victims of concentration camps and slave labor camps (Herman, 1992). She felt that complex trauma, as compared to a single traumatic event, would cause amplified symptoms of PTSD as well as additional unique ones. It is one of the contentions of this thesis that C-PTSD deserves its own classification. Beyond definitions and terminology, there are bioethical implications in how the healthcare system in the United States identifies patients suffering from C-PTSD. The review will focus on how the diagnosis of C-PTSD came to be, the debate in the literature over its etiology, and its similarities and differences with PTSD. Through an understanding of its symptomatology and etiology, studies demonstrate which populations are most vulnerable to the disease. From there, I will argue why structural violence, as well as overt violence, could lead to C-PTSD, focusing on pediatric populations. I will conclude with current understanding of treatment and the long term implications of C-PTSD and present an ethical analysis about why parents, physicians, and politicians cannot ignore this disorder.

From C-PTSD To PTSD

Disease and diagnosis are constantly in flux based on the current research and knowledge available at a given time. For psychiatry this flux seems even more constant. This field in particular relies on observation and clustering of symptomatology without a pathological tissue diagnosis that can be seen under a microscope in a lab. Because of this, psychiatry is always changing from each Diagnostic and Statistical Manual of Mental Disorders from the American Psychiatric Association (DSM) to the next. The diseases treated in this field represent this trend. PTSD and C-PTSD are not exempt from

this phenomenon and there is still debate and speculation over where C-PTSD fits into psychiatry with inconclusive evidence to exactly what it means.

In order to understand the current debate in the literature about whether C-PTSD is a valid and unique disease, one must understand its closely related and partially overlapping diagnosis of PTSD. PTSD was incorporated the world of medicine in 1980 after its constellation of symptoms was observed in thousands of Vietnam veterans after the end of the war (van der Kolk et al., 2018). It was first introduced in the DSM-III in 1980, but even through fine-tuning and its evolution to the most current definition in the DSM-V (2013), it is not fully understood. As explained by Kolb, “PTSD is to psych as syphilis was to medicine. At one time or another PTSD may appear to mimic every personality disorder.” The current DSM definition of PTSD involves 8 criteria (A through H), each with its own qualifiers that are as follows:

Criterion A (one required): The person was exposed to: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence, in the following way(s): direct exposure, witnessing the trauma, learning that a relative or close friend was exposed to a trauma, indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics); Criterion B (one required): the traumatic event is persistently re-experienced, in the following way(s): intrusive thoughts, nightmares, flashbacks, emotional distress after exposure to traumatic reminders, physical reactivity after exposure to traumatic reminders; Criterion C (one required): avoidance of trauma-related stimuli after the trauma, in the following way(s): trauma-related thoughts or feelings, trauma-related reminders; Criterion D (two required): negative thoughts or feelings that began or worsened after the trauma, in the following way(s): inability to recall key features of the trauma, overly negative thoughts and assumptions about oneself or the world, exaggerated blame of self or others for causing the trauma, negative affect, decreased interest in activities, feeling isolated, difficulty experiencing positive affect; Criterion E (two required): trauma-related arousal and reactivity that began or worsened after the trauma, in the following way(s): irritability or aggression, risky or destructive behavior, hypervigilance, heightened startle reaction, difficulty concentrating, difficulty sleeping; Criterion F (required): symptoms last for more than 1 month; Criterion G (required): symptoms create distress or functional impairment (e.g.,

social, occupational); Criterion H (required): symptoms are not due to medication, substance use, or other illness. In attempts to make this extensive definition even more comprehensive of the variety of symptoms observed, two specifications were added: dissociative symptoms involving depersonalization and/or derealization and delayed specification where symptoms may begin immediately after the trauma but full diagnostic criteria are not met until at least six months after the trauma (American Psychiatric Association, 2013).

At the time Herman postulated the idea of C-PTSD, the DSM-III was the standard description for diagnosis and she proposed its introduction to the proceeding DSM. This however was never accomplished. While the evolution to the DSM-V has more overlap with C-PTSD than the DSM-IV had, there is still not a complete overlap or inclusion of the observed symptoms. Some of the relevant changes in the DSM-IV to the DSM-V involving C-PTSD are the addition of the Criterion D (negative thoughts or feelings that began or worsened after the trauma) and E (trauma-related arousal and reactivity that began or worsened after the trauma). These criteria help to include the C-PTSD described symptoms of distorted beliefs, self-blame, dissociation, reckless behavior and negative emotions (Resick et al., 2012, p. 248). While the notion of C-PTSD has not been fully accepted and incorporated into the DSM, the inclusion of these important symptoms into the description of PTSD demonstrate the validity of what Herman observed and the attention she was able to bring to them.

Current literature debates whether C-PTSD is merely a phenomenon that came about from capturing severe PTSD or PTSD with overlapping psychiatric diagnoses, such as borderline personality disorder. Multiple studies support C-PTSD's dependence on PTSD while others evidence that it can stand alone as a diagnosis. It is likely that C-PTSD exists on a spectrum of PTSD, and like so many medical diagnoses, where it

begins and ends is not black and white. Many of the arguments in support of C-PTSD as its own entity do not argue for its complete independence from the diagnosis of PTSD. For example, a study of the Northern Irish population seeking treatment after the Troubles-related exposure to violence concluded that C-PTSD, in the form of disorders of extreme stress (DESNOS), can exist as its own entity. They found 95% of the population was positive for a diagnosis of PTSD and 73.3% were positive for DESNOS, meeting all 6 symptoms, including issues with regulation of impulses and affect, alterations in consciousness, self-perception, relations with others, somatic function, systems of meaning (Dorahy et al., 2009 p. 72).

Another study in an outpatient trauma center for children evaluated the range the symptoms and complexity of individuals in treatment. This study concluded that “...exposure to multiple or repeated forms of maltreatment and trauma in childhood can lead to outcomes that are not simply more severe than the sequelae of single incident trauma, but are qualitatively different in their tendency to affect multiple affective and interpersonal domains (Cloitre et al., 2009, p. 415). In a study of 190 African American women evaluated for a history of trauma exposure found that C-PTSD was significantly more likely with child abuse, and felt that the symptoms of C-PTSD they found are more likely to represent multiple types of moderate to severe abuse than the DSM-5 diagnosis of PTSD explained alone. When this study controlled for major depressive disorder, they found a significant difference in the symptoms of PTSD independent of the symptoms of PTSD with major depressive disorder, suggesting C-PTSD was an independent entity from PTSD with major depressive disorder (Powers et al., 2017). In a field study of military veterans seeking PTSD treatment, Ford and Kidd found that while C-PTSD and

PTSD were comorbid, they found evidence that they are distinct conditions because 26% of the population met classification for DEPNOS alone (1989). Thirty-one percent of this population met criteria for both C-PTSD and PTSD, and 29% were diagnosed with PTSD alone. In this population those with C-PTSD had particularly severe self-reported intrusive re-experiencing (Ford & Kidd, 1998). In addition, C-PTSD has been found to result in more treatment resistance and studies have shown that treating DEPNOS with traditional PTSD treatment could worsen the condition (van der Kolk et al., 2018, p. 4; Ford, 1999). A study in outpatient substance abuse patients found that the addition of sexual trauma in adulthood to a history of childhood sexual abuse further increased the likelihood of comorbid PTSD and C-PTSD compared to the presence of PTSD alone (Ford & Smith, 2008, p. 199-200). The similarities and overlap between PTSD and C-PTSD are understandable given their common etiology and common symptomatology.

The fact that C-PTSD can be diagnosed without the presence of PTSD criteria is a compelling argument for its existence as its own entity; however, this tends to be a small percentage of the population in all these studies. In addition, other studies make compelling arguments that C-PTSD is part of a spectrum of PTSD with additional overlapping psychiatric diagnoses. In a case-control analysis of Medicaid female patients looking at service-use, the study found overlaps in PTSD with symptoms of depression and borderline personality. This study found that 4.4% of patients who had depression and no PTSD, 5.3% had PTSD with depression, and 19.5% had complex PTSD which was PTSD with psychiatric diagnoses other than depression (Seng et al., 2005). While this study acknowledges the notion of a complex PTSD, the results could be interpreted that the overlap with associated psychiatric disorders imply C-PTSD is the same as PTSD

with comorbid diagnoses. Another argument against C-PTSD as a unique entity is the notion that complex, multiple trauma is extremely common and not an exceptional phenomena. In a nationally representative survey randomly distributed to the general population of 5877 individuals to evaluate lifetime PTSD prevalence, types of trauma exposure, sociodemographic correlates, and comorbidity with PTSD, it was found that 64% of those who experienced trauma had more than one type of trauma exposure and within that population 20% of males and 11% of females experienced three or more types of traumas (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). In Resick's comprehensive literature review of C-PTSD, she concluded that, "What has yet to be demonstrated is the qualitatively different relationship between complex trauma exposure...and the development of a unique symptom pattern that is best captured by an independent diagnosis called C-PTSD," (Resick et al., 2012, p. 243). She went on to argue that the symptom criteria used to define C-PTSD in the current literature has been inconsistent and that these symptoms often overlapped with the definitions of major depressive disorder and borderline personality disorder. She called for evidence of a unique pathogenesis or etiological agent in order to diagnoses C-PTSD as an independent entity (Resick et al., 2012, p. 243-244; 246). Because C-PTSD and PTSD are so similar and there is a great deal of research to be done still on complex trauma, it is difficult to determine the exact relationship between these two phenomena.

It seems counterintuitive to try to completely separate C-PTSD and PTSD, as they share the same causative agent, and even majority of their name. Judith Herman recognized the overlap in CPTSD co-existing with PTSD, but felt C-PTSD had the ability to extend beyond PTSD (Herman, 1992, p.387). The debate of whether C-PTSD is its

own entity or exists on the spectrum of PTSD is not inconsequential, as there are implications to how patients will be diagnosed and treated. While language is extremely important in shaping and influencing what it describes, in this instance, the debate in the literature takes focus away from the big picture of complex trauma. If complex trauma is the norm, then there is a sense of urgency to further understand its implications, be it a wider spectrum of PTSD or the inclusion of C-PTSD. The differences between it existing on the spectrum of PTSD or standing alone is less important than addressing how frequently complex trauma is taking place and how deeply people are affected by it. While the literature grows in its understanding of trauma, the focus needs to remain on the big picture: finding the populations most vulnerable and how to intervene. After that is established, understanding its exact etiology and where it fits into the DSM will likely fall into place. With an issue as serious and life-threatening as complex trauma, there is a sense of urgency in first treating, and then understanding.

CHAPTER 2 - C-PTSD SYMPTOMATOLOGY

Due to an un-solidified understanding of C-PTSD, it has carried different names through the literature since its creation. The variations include personality change after a catastrophic event according to the ICD-10 (International Health Classification of Disease-10th edition), developmental trauma disorder, posttraumatic personality disorder, and disorders of extreme stress (DESNOS) (Resick et al., 2012, p. 241; Van der Kolk et al., 2018, p. 8). In addition, there is a categorization of PTSD for preschool aged children called developmental subtype (Gregorowski & Seedat, 2013, p. 110). Regardless of the name, these variations of C-PTSD share the same fundamental diagnostic criteria. For example, the concept of developmental trauma disorder specifically applies to repeated trauma, often of abuse, experienced by children that shapes their personality and understanding of the world. These patients experience symptoms with problems in attachment, attention, and over-stimulation while often diagnosed with multiple psychiatric disorders (van der Kolk et al., 2018, p. 8). These various representations of C-PTSD are all attempts to capture the severe symptomatology associated with chronic trauma.

These severe symptoms that Herman found to be unique to C-PTSD are vital to understanding the debate in the literature over the disorder being its own entity. She categorized the disorder as symptomatic, involving more “complex, diffuse, and tenacious,” symptoms than that of PTSD; characterological, such that predictable personality changes were long term sequelae; and increased vulnerability for self-harm as well as harm by others (Herman, 1992, p. 379). Herman further characterized the

constellation of symptoms she observed to issues of somatization, dissociation, affective changes, psychiatric changes in relationships, and pathological changes in identify.

The association of somatic complaints with C-PTSD as well as PTSD have been echoed throughout the literature. In Herman's studies, the variety of somatic complaints range from tension headaches, GI disturbances, abdominal back or pelvic pain to tremors, choking sensations or nausea (Herman, 1992, p 380). Some individuals experience primarily somatic complaints after prolonged trauma, as observed in Southeast Asian Refugees who experienced prolonged captivity (Kroll et al., 1989; Kinzie, 1990). In a case-control analysis of PTSD and its physical comorbidities in women, associations with PTSD related to sexual abuse included irritable bowel syndrome, chronic pelvic pain, chronic fatigue, and fibromyalgia and menstrual pain being closely associated with the depressive symptoms (Seng, Graham-Bermann, Clark, McCarthy, & Ronis, 2005, p. 53). Somatic complaints associated with psychological sequelae are especially prevalent in pediatric populations as different developmental stages for children make processing the trauma they experience difficult.

The dissociative symptoms Herman describes are similar to that of dissociation and derealization now included in the DSM-V. However, Herman claims in C-PTSD these are again more extreme. She likens the extent of symptoms observed to that of individuals with borderline personality disorder or multiple personality disorder (Herman, 1992, p. 381). While others argue that these symptoms of complex PTSD are an actual overlap with borderline personality disorder, such as Resick (2012) does in his literature review, the association of these symptoms to victims of prolonged child abuse makes it unique (Herman, 1989). In the same way that PTSD came to fruition because of how it

uniquely was related to an agent outside the individual, an agent outside of the individual is creating the resulting dissociative symptoms in C-PTSD. Resick's argument and others in the literature in regards to the overlap of the borderline personality with PTSD as compared to C-PTSD as a unique entity are valid, as even Herman identified the overlaps in her initial proposition of C-PTSD.

Similar to the dissociative changes are the affective changes Herman describes, including depression and the internalization of rage that can result in "malignant self-hatred and chronic suicidality" (Herman, 1992, p. 382). Similar to the overlap of borderline personality disorder and dissociative symptoms, the affective changes have significant overlap with major depressive disorder. Importantly, the extreme depressive symptoms can lead to a cycle of withdrawal and social isolation that further depresses the individuals, creating a loss of faith and hopelessness. (Herman, 1992, p. 382).

The psychiatric changes in relationships as described in the initial definition of PTSD most strongly reflect the difference in nature of complex traumas. Due to the prolonged and often interpersonal nature of the trauma, it is speculated that the influence of the perpetrators on their victims is different and more extreme than that of PTSD. The nature of the trauma, such as domestic abuse, creates helplessness and isolates the individual, potentially leading to a strong attachment to the perpetrator (Herman, 1992, p. 383). This is unique to interpersonal trauma and especially prevalent in child abuse where the perpetrator is a parent.

All of these intense symptoms ultimately can result in a perhaps the most unique symptom of C-PTSD, which is a change in identity due to chronic trauma. This is best illustrated by Herman's description: "While the victim of a single acute trauma may say

she is ‘not herself’ since the event, the victim of chronic trauma may lose the sense that she has a self’ (1992 p. 385). The extent of dehumanization involved in C-PTSD goes beyond depression and depersonalization, and the key difference is that it is at the hands of an agent outside of the self. It is not an internal disorder, but rather an internalized disorder as a result of circumstances that happen to a person. It is this nature of C-PTSD that more directly requires of us careful attention to broader social determinants of health and the ways in which the effects of negative social determinants unethically fall upon certain populations.

CHAPTER 3 - POPULATIONS AT RISK FOR COMPLEX TRAUMA

C-PTSD was originally found in instances of overt, repetitive violence, such as that experienced by prisoners-of-war, refugees, victims of human trafficking, those experiencing ongoing war, individuals forced into prostitution, child abuse, and even those experiencing chronic illness (Courtois, 2004). While all of these types of violence are devastating, child abuse stands out in how widespread it infects children in the United States and takes place as part of their average day. Unfortunately, the association of complex PTSD and complex trauma most frequently falls on women and children. In addition to the increased vulnerability of these populations, they are also at an increased risk for C-PTSD due to the interpersonal relationship and repetitive nature of domestic abuse. This relationship between victim and perpetrator mimics the nature of the relationship Herman used to initially describe the etiology of C-PTSD. For example, Cloitre looked at rates of cumulative childhood trauma and found that the association of complex symptoms are related in a rule-governing manner to the amount of complex trauma and that these symptoms often carried on into adulthood (2009, p. 405). Studies on children chronically traumatized through domestic abuse often lack the ability to understand and use their own agency, and struggle to identify and communicate their feelings (Cook et al., 2005). Chronic abuse in children can lead to a constant sense of rejection and betrayal, resulting in feelings of worthlessness, negative self-esteem, a misunderstanding and mistrust of the world, and feelings of hypervigilance, all of which are the core of C-PTSD (Gregorowski & Seedat, 2013, p. 107). This example of the impact of abuse during childhood is reflected without contradiction throughout the literature. Even beyond the nature of domestic abuse that makes women and children

more vulnerable, there is also evidence in the literature that women are more at risk for PTSD as compared to their male counterparts. For example, in a study that evaluated resilience in New Yorkers after the September 11th attacks found that women were less than half as likely to be resilient after the incident, and those older than 65 were more than three times more likely to be resilient (Bonanno, Galea, Bucciarelli, & Vlahov, 2007, p. 647). Throughout the discussions and analysis of C-PTSD, it is crucial to keep in mind who is most vulnerable to this disease and the long term implications of being affected by C-PTSD. While this review focuses on children, especially children in poverty, it is vital to keep in mind the far-reaching effects of C-PTSD on all of the populations affected by it.

CHAPTER 4 - C-PTSD ETIOLOGIES AND COMORBIDITIES

At the center of any diagnosis is the understanding of how it came to be, what physiological reaction occurs to create its symptoms. This distinction is not an easy one to make in psychiatry. There are different hypotheses, however, in what types of traumas or the nature of those traumas that lead to a PTSD or C-PTSD reaction. There is evidence that the result of an extreme stress reaction following trauma involves the timing of the event, proposing that trauma during childhood most strongly predisposes individuals to PTSD and C-PTSD. A study that further evidences this notion proposed that the re-experiencing and triggers in child abuse are harder to control due to the fact that child abuse occurs in everyday life, unlike traumas dealing with torture or accidents (van der Kolk et al., 2018, p. 14). Additionally, Muller et al., found that, "...exposure to family violence may affect development differently than exposure to community violence, allowing social support to effectively buffer the effects of family, but not community violence. This finding highlights the importance of examining violence exposure that occurs within the family separately from violence exposure that occurs within the community" (Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000). These ideas hint at why child abuse is such a powerful catalyst for the worse.

Similarly, there are studies that found the type of trauma influenced rates of PTSD and C-PTSD. Much of this evidence argues for the potency of sexual abuse, which women are often more vulnerable to, leading to stress disorders. A study to measure the diversity of trauma experienced in an inner city youth population found that for females, the most common cause of post-traumatic reaction was the trauma of surrounding death, injury of family members and friends, and sexual trauma (Post et al., 2014, p. 270). A

national survey found that individuals were 70% more likely to have complex adult psychopathology if they had been sexually abused than if those that had not (Putnam, Harris, & Putnam, 2013, p. 438). The same study found different risk factors for men and women. It showed that growing up with economic hardship was a more potent risk factor for men and sexual abuse was more important for women (Putnam et al., 2013, p. 440). In a study of 389 homeless youth to evaluate mental health and victimization, it was found that polyvictimization did not predict mental health symptoms after accounting for specific types of traumas; however, there was a significant predictability of PTSD with sexual trauma as compared to multiple non-sexual traumas (Wong, Clark, & Marlotte, 2016, p 832). The same study found without including sexual abuse, multiple abuses did increase risk for PTSD more than single trauma, but sexual trauma accounted for 6% of the variance in depression symptoms and 12% of the variance in PTSD symptoms (Wong et al., 2016, p. 844-845). From this evidence, it is clear that not all traumas are created equal.

Beyond the type of trauma, there are hypothesis that the proximity to the event is a factor in the development of a post-traumatic reaction. These studies evaluate direct trauma, which is an event the individual experiences, as compared to indirect trauma, which is an event that an individual witnesses. A sample of 159 kids after a fatal sniper shooting at their school showed that the children who were more closely exposed to the event had more significant symptoms. The degree of proximity, in terms of if they were also on the playground where the event took place versus in the school versus at home, etc, mattered more than sex, ethnicity, or age. Additionally, the children who knew the victim well had significantly more severe symptoms (Pynoos et al., 1987, p. 1060). Other

studies have found the opposite. According to Post et al., in a study of violence exposure in inner city youths, no difference was found in the impact of direct compared to indirect trauma on symptom types (2014, p. 274). A study on a similar population that surveyed parents of a violent inner city neighborhood showed the mode of exposure is not significant in predicting the impact of violence. They found the same correlation between direct and indirect exposure to children's distress (Martinez & Richters, 1993). It is likely the contradiction in findings is due to the multiple layers and complexity that go into the development of symptoms after a traumatic experience.

Another piece of that layer lies in the individual and their perception of the traumatic events. This issue is especially prevalent in children who are still coming to understand the world around them. A study on the Northern Irish population exemplified these multiple facets in finding that more severe DESNOS symptoms were significantly related to childhood sexual abuse. Additionally they found a current DESNOS diagnosis was related to childhood emotional neglect and a perception of severe impact of Troubles-related experience, and lifetime DENSOS diagnosis was related to childhood experience of Troubles-related exposure (Dorahy et al., 2009, p. 77). These different aspects of a DESNOS, or C-PTSD, diagnosis can be correlated to different associations with trauma type, timing, and perception. Other studies similarly looked at environmental risk factors for chronic violence, such as homicide, nonfatal shootings, physical assaults, rapes and robberies with physical assaults in high-crime areas and found that children's perception of their exposure to violence was more powerful predictor of symptoms than the composite number of violent incidents they witnessed (Hill & Madhere, 1996, p. 39). In a survey of exposure to community violence in a Headstart population as compared to

the national average as determined by National Health Interview Survey data, it was found that children's reactions to traumatic stress predicted prevalence of health more than the individual contributions of maltreatment, domestic violence, maternal substance abuse, or the mother's health status (Graham-Bermann & Seng, 2005, p. 352). While it is difficult to know which factor of a traumatic event creates the most potent predictor of PTSD or C-PTSD, it is clear that the timing of the trauma, type of trauma, mode of trauma, and perception of trauma all play significant roles.

CHAPTER 5 - COMPLEX TRAUMA AND ITS KNOWN CO-MORBIDITIES

Chronic trauma, PTSD, and C-PTSD do not exist in a vacuum and their consequences have been correlated to other comorbid conditions including behavioral disorders, obesity, diabetes, and asthma. One study showed that the odds of at least one clinical diagnosis were 1.2 times greater if patient had complex trauma in a study of complex trauma in children in foster care (Greeson et al., 2011, p. 102). In a study after a school shooting, there was a 100% rise in the frequency of school nurse visits from 1250 to over 2500 in the six months following the incident (Pynoos et al., 1987, p. 1058). Numerous other studies continue to demonstrate how psychiatric issues from trauma lead to other diseases. Because of this, the dangers of complex trauma extend beyond the psychiatric symptoms.

Some of the strongest evidence of physical comorbidities with psychiatric conditions link PTSD with obesity and metabolic syndrome, and given the similarities between PTSD and C-PTSD, it is likely that C-PTSD shares many of these correlates. A study from a general medicine clinic in an urban public hospital evaluating PTSD, major depressive disorder, and metabolic syndrome found that 90.6% of those examined for metabolic syndrome had a history of exposure to at least one of the criteria A of PTSD, with an average of 3.7 exposures (Weiss et al., 2011, p. 137). The same study performed a logistic regression analysis showing only PTSD is a significant predictor of metabolic syndrome when accounting for age, sex, race, smoking history, antipsychotics, trauma-experience, and major depressive disorder (Weiss et al., 2011, p. 138). In a nationally representative survey, obesity prevalence rates were highest among persons with past year of PTSD at 32.6%. Those with a lifetime history of PTSD had a prevalence rate

of obesity at 25.5% as compared to those without PTSD with a prevalence of obesity at 24.1% (Pagoto et al., 2012, p. 202). Another study from a large database of nurses found that overall childhood adversity is a significant predictor of central obesity and remains significant when psychosocial risk factors and health risk factors are included in the analysis. Similar findings were true for central obesity, however, with the additional risk factors only the psychosocial influences were significant. This implies that childhood adversity significantly predicts central obesity, even in light of health risk factors in adulthood (Davis et al., 2014, p. 202-203). Female victims of childhood abuse in comparison to non-abused peers were more likely to manifest obesity in early adulthood and follow high-risk trajectories (Noll, Zeller, Trickett, & Putnam, 2007). Other psychiatric diagnoses have similar relationships. For example, anxiety and depression have been linked to abdominal obesity, elevated blood pressure, and metabolic abnormalities (Rosmond, Dallman, & Björntorp, 1998).

The underlying physiology to explain these relationships has been postulated in many studies. In a review of the metabolic influences of PTSD, multiple mechanisms were proposed to underlie the relationship between PTSD and stress with increased BMI, obesity, and metabolic syndrome. Some of these include an altered reward processing circuitry in the brain, changes in eating behaviors, structural brain changes, emotional eating and alcohol consumption, altered appetite hormones, sympathetic hormone release related to stress that affects brain processing, and altered inflammatory markers (Farr, Sloan, Keane, & Mantzoros, 2014, p. 2-4). Other studies have shown that adolescent obesity is associated with increased cortisol and a disrupted circadian rhythms, likely due to this stress hormone increase (Hillman, Dorn, Loucks, & Berga, 2012). Sleep

disturbance is also associated with obesity and type two diabetes mellitus (Seegers et al., 2011). Additionally, kids with chronic stress often have poor adherence to self-care activities and live more sedentary lives, contributing to issues with metabolic syndrome and obesity (Pervanidou & Chrousos, 2012, p. 615).

Similar to the relationship with PTSD and obesity, diabetes mellitus has been specifically studied in terms of its increased prevalence in traumatized patients. One study demonstrated a dose-response pattern in the association of physical and sexual abuse in childhood and adolescence with increased risk for type two diabetes mellitus, especially with significant abuse. Moderate and severe abuse are associated with a 26-54% increased risk of diabetes in adulthood (Rich-Edwards et al., 2010, p. 535). This study broke down the relationship, showing the risk estimates for diabetes mellitus were 29% greater for those who experienced moderate physical abuse, 49% greater for those who experienced severe physical abuse, 19% to 32% greater for those who experienced forced sexual encounters, and 86% greater for those who experienced repeated forced sexual encounters (Rich-Edwards et al., 2010, p. 533). When this study factored in adult BMI as mediator of diabetes, they found that adult BMI accounted for 60% of the increased associated risk, but also found that BMI trajectories changed significantly for those that were abused, even when similar somatotypes of body habitus were found at age five between those abused and those not abused (Rich-Edwards et al., 2010, p. 534). This example shows not only the significant relationship between diabetes and trauma, but also demonstrates the increased severity of complex trauma. The increased risk of comorbidities associated with chronic trauma exemplify how complex trauma and simple trauma are not the same beast.

Many of the symptoms of PTSD and C-PTSD are behavioral, so it stands to reason that they influence and interfere with other spheres of behavioral functioning. For example, a study of children placed in foster care shows that those with complex trauma are at increased risk of affect and behavior dysregulation, which often leads to involvement with the juvenile justice system (Greeson et al., 2011, p. 106). Studies have also shown that children who are victims of inner-city violence are at increased risk of psychiatric disorders, substance abuse, academic failure leading to later juvenile justice system involvement (Cooley-Strickland et al., 2009). Symptoms of increased aggressive behavior, distractibility, impulsivity, and depression have also been noted in children exposed to both family and community violence (Dyson, 1990). In a study of Black South African children on exposure to direct, indirect, political, family, and community violence, it was found that ambient community violence was significantly correlated with attention problems, aggression, and anxious depression. Victimization was correlated with oppositional behavior. Family violence correlated with attention and aggression and correlated inversely with academic motivation (Barbarin, Richter, & Dewet, 2001, p. 21). This association is vital to the understanding of how traumatic experiences shape how children are able to navigate the world. Whether it is as severe as involvement in the juvenile justice system or inhibition to functioning well school. Children who experience trauma reported symptoms of loneliness and sadness, loss of desire for amusement, daydreaming, inattention, disrupted sleep, nightmares, easy perturbation, intrusive disturbing imagery, separation anxiety, and fear of death as reported by parents and self-reports of children (Osofsky, Wewers, Hann, & Fick, 1993). While some of these symptoms overlap with the diagnosis of PTSD, C-PTSD, depression, they exemplify the

severe functional impairment these individuals face in their daily lives. Studies hypothesized about the underlying physiology that result in these outcomes, such as decreased basal plasma cortisol and exaggerated sensitization in terms of cortisol release and impaired immune function, which has been associated with chronic life stress and can result in prolonged immune dysfunction even after the resolution of the stressor (Yehuda, Teicher, Trestman, Levengood, & Siever, 1996; Pike et al., 1997). Other studies have shown that increased glucocorticoids during stress may inhibit the frontal lobe, cause amygdala hyper function, hippocampal damage and consequently affect learning and concentration (Edwards, Harkins, Wright, & Henn, 1990). From this, it is easy to draw the line from how traumatized children face more difficulties trying to cope with everyday life and overcome more barriers to succeed in school, their careers, and ultimately to function in society.

These same behavior issues related to complex trauma exposure lead to issues with substance abuse and alcoholism. In a study of outpatient individuals at a crisis intervention center showed that survivors of child abuse display significantly more insomnia, sexual dysfunction, dissociation, anger, suicidality, self-mutilation, drug addiction, and alcoholism than other patients. The same study showed that physical abuse or assault trauma are almost universally reported in the sample of outpatients seeking treatment for substance use disorder, which reflects other literature that demonstrated 36 to 50% of those seeking treatment for substance use disorder met lifetime criteria for PTSD (Brady, Back, & Coffey, 2004; Ford & Smith, 2008; Briere, 1988, p. 199). When looking at the adult population seeking treatment for substance abuse disorders, it was found they were 11 times more likely to have PTSD than those without substance use

disorders. Similar findings were true for alcohol abuse, with 5 times the increased risk for PTSD than those without alcohol use disorder (Ford & Smith, 2008, p. 194; 198). It has been proposed that these associations stem from a need to self-medicate when faced with re-stress, implementing self-soothing strategies such as substance abuse, binge eating, and self-injury, (van der Kolk et al., 2018, p. 17). As physicians treat patients with difficult addictions, it is vital they understand what happens to people and take trauma histories into consideration.

In addition to obesity and behavioral problems, asthma is one of the most commonly encountered diseases plaguing the children in the United States. As associations between obesity and stress are being uncovered, there are also correlations with stress and asthma outcomes. For example, chronic trauma increases stress and inhibits the ability for children to cope. Asthma morbidity has been shown to be related to many psychosocial issues, such as health beliefs, behaviors, social support, symptom perception and adherence, all of which can be affected by domestic violence or be complicated by chronic trauma (Wright, Rodriguez, & Cohen, 1998, p. 1068). This is further exemplified in a study on asthma, allergy, and ADHD prevalence in a poor Headstart population compared to the National Health Interview Survey (NHIS). Asthma was more prevalent in the Headstart group, but similar to the poor populations in the NHIS survey. Headstart individuals had greater than two times the rate of ADHD. The highest rates of health problems among kids were those with traumatic symptoms. Individuals with one or more of the three symptoms [allergies, asthma, ADHD] were found to be more likely to have intrafamilial violence and to have a diagnosable traumatic

stress disorder. Kids with asthma and gastrointestinal symptoms were approximately four times more likely to have PTSD diagnosis (Graham-Bermann & Seng, 2005, p. 351).

CHAPTER 6 - STRUCTURAL VIOLENCE AND ITS AMPLIFICATION OF COMPLEX TRAUMA

In Herman's original assessment of C-PTSD, she notes the nature of the traumas studied were interpersonal in the sense that the perpetrator often tries to destroy a victim's sense of autonomy by control of food deprivation, sleep, shelter, exercise, personal hygiene or privacy. Examples of this include sex labor and hostage situations. She also notes how in these situations, violence is usually based on random outburst with unpredictable reinforcement and meaningless demands to create instability (Herman, 1992, p. 383). It is not hard to imagine how these situations could be applied to domestic violence experienced by children. Beyond domestic abuse, though, it is possible to imagine this phenomena of lack of control as experienced by those living in poverty. Without one's basic needs being met and constantly living in a world where one's power and agency is often demeaned by lack of means, poverty creates traumatic situations. The combination of being an impoverished child is one of increased vulnerability to these perils. While C-PTSD in its various names and forms have been studied as a result to a overt, physically traumatic events, it is possible that similar symptoms of C-PTSD could result from the trauma of living in poverty.

From the understanding of what populations are most vulnerable to complex trauma, there is additional evidence that low socio-economic status amplifies this vulnerability, disproportionately affecting these individuals more than their wealthier peers. This has been shown over and over again in the literature, as represented in the previously discussed studies focusing on inner city populations and the various traumas

those individuals experience. Though it seems obvious that high-crime areas will have the most complex trauma, vital to this understanding is who lives in these high-crime neighborhoods and why. Who is affected is not random. Who lives here is built into the fabric and structure of society. This notion is best explained through the idea of structural violence, a term to explain the interaction of social institutions systematically hurting people through barriers to meet their basic needs (Galtung, 1969; Chopra, 2014). The increased prevalence of structural violence for those living in urban poverty plays a major role in making poor urban populations more vulnerable to C-PTSD.

How society came to be this way lies in a complicated socio-political history of how cities formed, but what is most important are the results of this phenomenon which are consistently evidenced in the literature. Studies show that urban minority populations are at increased risk to high levels of interpersonal violence, high PTSD rates and depression (Alim et al., 2006). In a study of 190 African American women with predominantly low income and 63.7% unemployment rate found that those with C-PTSD had significantly higher rates of childhood abuse and lower rates of adult secure attachment (Powers et al., 2017). Residents of urban “war zones” are predominately African American and Hispanic, and the effects of violence combine with the stress of living in racism, oppression and institutionalized poverty (Garbarino, et al. 1992). It is not new information that children from disadvantaged neighborhoods are prone to financial issues, homelessness and instability, parental mental illnesses and or substance abuse (Kiser, 2007, p. 212). This concept of structural violence feeding into high levels of PTSD and C-PTSD lies in understanding the various barriers to success they face. These kids are embedded in an environment that is sub-par for growth and learning, such as

homes, schools, and neighborhood facilities that are crowded, poorly maintained, and inadequately temperature controlled and with substandard plumbing and lighting (Elliott et al., 1996; Polivka, Lovell, & Smith, 1998). It is devastating to think of these conditions in addition to the stress of living in poverty and the high rates of violence to which they are exposed. A study that evaluated violence before and after homelessness exemplifies these issues. This study in 389 homeless youth reported that 70% of these kids lived in an adverse home environment prior to homelessness, with abuse being the most prevalent (58.9% were emotionally abused/neglected, 51.4% physically abused, and 33.2% sexually abused). Over 80% of these kids reported at least one trauma before becoming homeless, and 52% reported exposure to multiple traumas before becoming homeless (Wong et al., 2016, p. 841; 845). While living in urban poverty predisposes these children to homelessness, this study shows how the effects of structural violence and overt violence in these communities is rampant. The aggressions did not end there and the study went on to show that after becoming homeless, 37.3% experienced physical assault, 27.4% were harassed, 22.5% experienced interpersonal violence, and 13% were sexually assaulted (Wong et al., 2016) p. 841). These results were echoed in other studies which showed that homeless youth experience significantly more traumatic events, abuse, and neglect prior to becoming homeless and then are often faced with daily violence while homeless (Bender, Ferguson, Thompson, Komlo, & Pollio, 2010).

Another example of population often affected by low socio-economic status and increased violence are children in foster care. A study on this population found that the prevalence of complex trauma experienced was 70.4% for at least two types of trauma and 11.7% had experienced all five of physical abuse, sexual abuse, emotional abuse,

neglect and domestic violence in a study of children in foster care. Demographics in this study showed that 80% of the population was eligible for public insurance, exemplifying the relationship between socioeconomics and vulnerability of this population (Greeson et al., 2011, p. 92; 98). Additionally, studies of PTSD have linked higher rates of PTSD to female gender, minority ethnicity, lack of education, and younger age. Studies have also found that some of the strongest predictors for PTSD are trauma severity, lack of social support, and additional stress after the trauma (Brewin, Andrews, & Valentine, 2000). The complexities of interactions between politics, economics, and other institutions that interact to create poor urban communities are difficult to evaluate, but what is clear is the urgency to do so. These populations are being disproportionately affected by structural and direct violence, leading to PTSD, C-PTSD and other traumatic reactions.

Beyond the individual violence children in urban poverty experience, the effects of institutions on poor urban communities influences the ability for families living in them to function, adding an additional layer to the web of complex trauma. As criminologists Sampson and Laub eloquently stated, "...families do not exist in isolation, but instead are systematically embedded in social-structural contexts" (Sampson & Laub, 1994, p. 538). In their study on causes of delinquency related to family structure, they concluded that structural poverty has significant effects on informal social control (i.e. poverty, large families, parental deviance, parental instability and being foreign born) was significantly related to harsh and punitive discipline. They found that this type of discipline was related to both official and unofficial delinquency in that delinquency decreased with increasing erratic and harsh discipline. They also importantly found that delinquency decreased with increased supervision and attachment. Eighty-three percent

of families in the low supervision category were delinquent compared to 10% in the high supervision category. They hypothesized that poverty decreases effective monitoring, and that families experiencing marital disruption, frequent moves, disadvantaged financial/ethnic positions, and a pattern of deviant or unstable parent conduct resulted in more hostile and indifferent relationships (Sampson & Laub, 1994, p.531; 533-34).

“Apparently the fundamental cases of delinquency are consistent across time and rooted in race (e.g. black inner city culture) but generic family process—such as supervision, attachment, and discipline—that are systematically influenced by family poverty and structural disadvantage” (Sampson & Laub, 1994, p. 538). This study excelled in evaluating previous models used to explain antisocial behavior and delinquency while trying to envision a model that accounted for the complex collision of social structure and family.

Other studies have suggested that urban poverty affects parent’s ability to cope and mediate the stressors and traumas their children experience. The increased stress they experience inhibits their ability to create rituals, which have been shown to help mitigate children’s stress. These families have less time to maintain family life and fewer people resources (Kiser, 2007, p. 219). This creates a cycle, where chronic stress and difficulties experienced by children living in low socioeconomic status leads to more disruptive behaviors, and thus more difficulties for families, and can ultimately lead to posttraumatic symptoms. Kiser and Black showed that living with chronic trauma inhibits the family process especially in regards to structure, relationships and coping (2005). Additionally, Hill and Madhere also studied “the ecological context” in an assessment of risks and resources of African American children (1996). They looked at 150 African

American 4th through 6th graders from inner city elementary schools, assessing their accounts, their parent's/guardian's accounts, and teacher's accounts of violence in their community and found that children's anxiety was related to growing violence apprehension. Interestingly, children reported that retaliation lowered their anxiety, perhaps explaining why cycles of violence continue to grow in urban communities. Lower income was found to amplify the association with confrontational behavior. Family support was associated with decreasing anxiety and as coping styles of mother's increased, anxiety increased, which was proposed to be related to children's heightened awareness of their vulnerability. Importantly, this study showed effects of low income family were more detrimental than the repetitive trauma of exposure to violence, as low income was more consistently associated with various problems in psychological adjustment than was living in a high crime area (Hill, H., & Madhere, S., 1996, p. 36; 38-9). Families interact with the structures they are embedded in and these influence and shape the outcomes of their children. The economic resources available to families influence their resources in terms of social capital, time, and ability to create stability. All of these factors and institutions ebb and flow together to create outcomes like C-PTSD.

The importance of understanding how structural violence and overt violence interact to create the environment of poor urban youths lies in the long-term outcomes for these children. Complex, repetitive trauma has a way of finding the most vulnerable people with the least resources to deal with it and creating a cycle of violence that is difficult to escape. For example, individuals who experience the trauma and violence-exposure of living through war are then raised by parents who were traumatized by the same experiences. This double hit of being raised by traumatized parents who likely do

not have the resources to deal with their own experience, much less be able to provide them for their children, is one of consequences of war noted in the study of Troubles-related exposure in Northern Ireland (Dorahy et al., 2009, p. 78). The nature and type of the trauma experienced by many who experience C-PTSD often represents the cyclical nature that predisposes individuals to re-victimization, furthering the illness. Violence becomes normalized in their life, as it is not a one-time event that was traumatic that they leave behind. Ongoing poverty, unemployment, and living in a dangerous environment creates ongoing stimuli and shape the ability for these individuals to succeed and cope (Wright et al., 1998, p. 1067). The perpetuation of inequality due to structural violence creates high levels of apprehension and anxiety, which can interfere with attention and ability to perform in school, and importantly can, “distort and eclipse the way they see the world and see their future” (Hill & Madhere (1996, p. 28). The normalization of violence in their community and their ability to understand can lead to learned helplessness after individuals exposed over and over again to adverse events that are out of their control, such as poverty, living in an unsafe environment (Peterson, 1982).

CHAPTER 7 - TREATMENT AND LONG-TERM IMPLICATIONS

While there is ample documentation of the harmful effects of complex trauma, there are significant gaps in the literature and understanding of what to do about it. The ability to ameliorate the effects of something that is shaping how children see the world around them seems like a hopelessly daunting task. Formal interventions for the psychiatric symptoms focus on an assessment of the situation, safety, engagement, attachment and strengthening relationships, core treatment intervention, attention to social context, trauma processing, consolidation and posttraumatic growth, and therapist self-care (Layne et al., 2014, p. 294-95). Other models detail the importance of the individual components of these steps, suggesting the emphasis on symptom management, creation of repetitive patterns, connecting with internal state and actions, identify traumatic memories and provide gradual exposure therapy, and learning interpersonal connections with the goal of teaching victims to re-experience their sensations and emotions in safe place with predictability. This helps uncouple the trauma-related sensations from reactivating emotions (van der Kolk et al., 2018, p. 18-19). Studies acknowledge the challenge of this, and how fragile the therapeutic relationships between clinicians and their traumatized patients can be. Patients can easily react to minor irritations, and clinicians can easily become frustrated. As Van der Kolk explains, “They cannot teach themselves how to be safe, because many of them simply lack a baseline understanding of what that means” (2018, p. 20).

Beyond the formalized intervention models, the literature emphasizes the importance of individualized care embedded in local ecology and involvement of social relationships. Dorhay et al., showed that community connectedness was the only

overlapping significant predictor for PTSD and DESONS, and that lifetime DESNOS risk was predicted by interpersonal connectedness, with community disconnectedness increasing PTSD symptom severity. This study argued that social identity had the potential to mitigate psychological distress through a sense of connectedness and acceptance (Dorahy et al., 2009, p. 73;77). Other studies have echoed these findings, emphasizing the importance of family rituals in creating safe havens for children. “This model postulates that family ritual life provides behavioral, perceptual, emotional, and spiritual means that influence the critical protective family processes potentially vulnerable to the effects of urban poverty-structure, connectedness, resource seeking, beliefs in family, and coping,” (Kiser, 2007, p. 219). The study goes on to emphasize the importance of making each treatment family specific in order to create a sustainable way for the family to improve their functioning and help children. Other studies have echoed these solutions, suggesting the family’s ability to serve as a barrier to disturbances depends on quality of family relationships and amount of support and other social resources. This requires the implementation of individual solutions for each family (Barbarin et al., 2001; Gregorowski & Seedat, 2013; Cook et al., 2005, p. 24; 115). Some studies have found results that support these hypotheses. For example, children who were less spiritual had higher rates of C-PTSD, and comprehensive support networks have the potential for the strongest impact on children’s emotional response to community violence (Jones, 2007, p. 141; 145). Children with high levels of social support as compared to medium or low amounts were more likely to have resilience (Bonanno et al., 2007, p. 675). Beyond the nuclear family, interventions also have to address those most vulnerable, such as families dealing with poverty. While therapy and family interventions

may help mitigate the disease, to prevent it and offer holistic help, multiple institutions need to be part of the solution. Putnam et al., propose the creation of home visitations that offer economic hardship interventions and screening for abuse and safety, which would allow for a sustainable, local solution that would address both individual families and the socio-economic issues they deal with (Putnam et al., 2013, p. 441).

CHAPTER 8 - LIMITATIONS AND FUTURE GOALS

While the existing literature is comprehensive in the bits and pieces of society it touches, it is vital to be aware of its limitations. The majority of studies were cross-sectional analysis and survey based. These aspects make studies analyzable and generalizable, but create the potential to miss large populations that are affected. For example, studies on child abuse often rely in part on parent's reports, which influences how much parents are willing to share. Additionally, studies relying on surveys limits what is classified as violence. Participants had to classify their experience into distinct categories, without the ability to reflect on things that may have been traumatic in their lives that does not fit into these categories. Future studies should focus on an open-ended, anthropological method to assess environments and to be comprehensive of all the types of traumas experienced. It is well known that the wording of surveys can influence the response, and with a traumatized population dealing with extremely sensitive issues, it seems there should be a better way to interact and gather information than pre-defined trauma on a survey. Even for those who are experiencing the violence and trauma within these categories, it is well known that low income individuals in high-crime communities will not always seek care and the mental stigmatization associated with psychiatric disorders is a barrier to getting help. It is vital to find a way to reach the populations missing in order to curb the consequences of complex trauma. It is also vital to further research on complex trauma and its implications. Judith Herman exemplified how the misunderstanding of what these individuals are going through will impede the ability to help them, including a misdiagnosis than can stigmatize symptoms rather than recognizing C-PTSD and its predictable effects (Herman, 1992, p. 388).

The high rates of complex trauma inflicted on society's most vulnerable populations is evidence for how drastically society is failing its youth. Rates of direct, indirect, and structural violence are shaping the way America's urban youth understand the world around them, and not for the better. While these issues are complex and embedded in policy and economics, its consequences are as well. Continuing to allow this violence is going to lead to continuing issues of healthcare costs in terms of trauma treatment and physical comorbidities, substance abuse, incarceration, and the creation of a society of functioning, productive, and fulfilled individuals. It is ethically unsound for cities to not intervene and do something to help children undergoing complex trauma. Better detection of abuse and detection of the challenges vulnerable populations experience, with interventions ready, is vital to improving the health of cities.

When thinking about complex trauma and structural violence, it is important to emphasize that these relationships are non-linear. It is counterintuitive to think structural violence by itself could lead to a reaction such as C-PTSD, which predates PTSD on a casual traumatic event outside the individual. However, it is clear that the two interact. Another similar interaction that has been implicated in pediatric populations is the idea of Adverse Childhood Experiences (ACEs), which have been linked to multiple comorbidities and poor life trajectories, similar to C-PTSD (Felitti et al., 1998). There is significant overlap between applying a C-PTSD diagnosis from structural violence to children and the idea of Adverse Childhood Experiences negatively impacting children's futures; I argue that the distinction between structural violence and the notion of ACE events is understanding how the poor environments are not accidents. Policy and history led to disproportionate poverty and violence in urban communities, and that must also be

factored into the solution. None of these issues exist in isolation. While studies may attempt to tease out the impact of overt violence versus institutionalized violence, the reality is that they exist together for those living through them. They feed into each other creating a cycle of a perfect storm that forever impact the lives of children. They help dictate the success and failures of these vulnerable populations. The overwhelming number of individuals living through structural violence and complex trauma on a daily basis calls for consideration of issues as a national health crisis. While many of the studies reviewed were populations seeking help, resulting in high levels of complex trauma, the numbers throughout the literature are incomprehensible. The amount of physical abuse reported is chilling. The rates of complex trauma, especially as experienced by urban youth, call for immediate attention from policy makers, clinicians, economist, and all those who play a role in these complex issues. To ignore the injustice and the suffering of these most vulnerable populations and to not address C-PTSD and its impact is ethically inexcusable.

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