TREATMENT APPROACH



The Intersection and Dynamics between COVID-19, Health Disparities, and Adverse Childhood Experiences

"Intersection/Dynamics between COVID-19, Health Disparities, and ACEs"

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic is shining a spotlight on health disparities that have long been overlooked in our society. The intersection between Adverse Childhood Experiences (ACEs), longstanding health disparities, and COVID-19 cannot be ignored. The accumulation of traumatic events throughout the childhood and adolescent years can cause toxic stress in the absence of supportive adults. This repetitive activation of the stress response system can be a catalyst to long-term, negative effects on both the body and brain. A major factor to appreciate is that ACEs do not affect all populations equally. ACEs disproportionately affect groups that have been historically oppressed. The current COVID-19 pandemic highlights this point when observing both case rates and fatality rates of the virus and has the potential to create a new series of long-term health conditions that will disproportionately affect marginalized communities. A foundational first and critical step of adopting a trauma-informed approach will help lead to system change, advance equity, and create a setting of mutuality and empowerment for our patients.

Keywords ACEs · Adverse childhood experiences · Coronavirus · COVID-19 · Trauma informed

Introduction

This manuscript aims to highlight the interconnected relationships between Adverse Childhood Experiences (ACEs), longstanding health disparities, and coronavirus disease 2019 (COVID-19). Experiences that incorporate multiple ACES without supportive adults can cause toxic stress. This excessive activation of the stress response system can lead to long-term effects on both the body and the brain. The severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), which caused the COVID-19, pandemic has highlighted

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existing health disparities and created a new series of potential long-term health conditions that will impact marginalized communities. Adopting a trauma-informed perspective is a foundational first and critical step to system change and advancing equity.

Discussion

Review on ACEs and Associated Long-Term Effects

Some years ago, Dr. Robert Ross, a pediatrician and CEO of a large foundation in California, was quoted as saying childhood trauma is the greatest public health issue in America that is "hidden in plain sight." (Gwinn, 2015) Indeed, before COVID-19 reached pandemic status in the United States in the Spring of 2020, there was already an existing pandemic, one that was arguably more elusive from detection and with far-reaching and widespread consequences to health; childhood adversity also referred to as ACEs. The seminal Adverse Childhood Experiences Study (Felitti et al., 1998), a joint initiative by the Centers for Disease Control and Prevention and Kaiser Permanente of San Diego, substantially expanded the understanding of how childhood adversity can disrupt health and well-being over the life course. The ACE Study asked over 17,000 insured, mostly White, and mostly college-educated adults about experiences of ten different categories of ACEs, encompassed by three main classifications of abuse, neglect, and stressors encountered in the home. Since then, there have been many more recognized ACEs and recommendations to expand the concepts of childhood adversity. These expanded ACEs may include but are not limited to; experiencing racism, bullying, peer rejection, violence, an unsafe neighborhood, or foster care (Cronholm et al., 2015).

Of the 17,000 adults in the original ACE Study, 75% were White, 75% had gone to some type of college, and 100% were insured, because they were all recruited through Kaiser. While ACEs can occur to any demographic, this is not a group that would be largely considered at-risk or vulnerable, and we must recognize there may be uncategorized ACEs that could affect minority populations differently (Cronholm et al., 2015). This is an important factor to consider as we review the main findings from the ACE study (Felitti et al., 1998; Felitti & Anda, 2010). Three key findings were observed from the ACE Study series (Anda et al., 2006; Brown et al., 2009; Felitti et al., 1998):

- ACEs are common (Felitti et al., 1998) over 60% of participants reported having ≥1 ACE; about 1 in 8, or 12.5%, reported having ≥4.
- 2) After adjusting for age, sex, race, and educational attainment as a proxy for socioeconomic status, researchers observed a dose-response relationship between ACEs and a wide array of negative physical, mental, and behavioral health outcomes. ACEs are associated with health risk behaviors (smoking, heavy drinking, intravenous drug use) (Anda et al., 1999; Anda et al., 2002; Campbell et al., 2016; Dube et al., 2002; Dube et al., 2003; Edwards et al., 2007; Felitti et al., 1998; Ford et al., 2011), chronic diseases (Felitti et al., 1998; Gilbert et al., 2015; Sonu et al., 2019) (chronic obstructive pulmonary disease (Anda et al., 2008), cancer (Brown et al., 2010; Brown et al., 2013; Hindin et al., 2019; Holman et al., 2016), cardiovascular disease (Dong et al., 2004; Pierce et al., 2020; Rich-Edwards et al., 2012; Sonu et al., 2019; Su et al., 2015; Suglia et al., 2017), diabetes (Huang et al., 2015; Huffhines et al., 2016), stroke (Felitti et al., 1998)), and mental health problems (Edwards et al., 2003) (depression (Ege et al., 2015; Chapman et al., 2004; Li et al., 2016; Merrick et al., 2017), attention deficit hyperactivity disorder (Jimenez et al., 2017), anxiety (Li et al., 2016), posttraumatic stress disorder (Schalinski et al., 2016), suicidality (Dube et al., 2001; Felitti et al., 1998; Merrick et al., 2017)).

 ACEs are associated with early or premature mortality, only in part explained by ACE-related conditions (Brown et al., 2009).

Subsequent studies have observed associations between ACEs and socially important outcomes as well as unmet social needs. These include job employment (Liu et al., 2013; Metzler et al., 2017), juvenile justice system involvement (Baglivio et al., 2015; Office of Juvenile Justice and Delinquency Prevention, 2014), high school noncompletion (Metzler et al., 2017), disability (Austin et al., 2016; Campbell et al., 2016), and trust in the health system (Munoz et al., 2019). Of equal importance, unmet social needs were identified including food insecurity (Chilton et al., 2015; Sun et al., 2016), housing instability/homelessness (Montgomery et al., 2013), and household poverty (Metzler et al., 2017).

The pediatric years are certainly not exempt from ACErelated consequences. The odds of attention problems, poor academic skills, aggression, and social problems all increase in a dose-response association in children who have experienced ACEs (Jimenez et al., 2016). Therefore, one of the devastating ramifications of trauma during childhood can manifest in the form of school problems, whether it's academic failure all the way to school expulsion (Bethell et al., 2014; Burke et al., 2011; Jimenez et al., 2016; Quach et al., 2017). When the entire physical, social, and psychological landscape is considered, it becomes evident that for many children, a traumatic event is not just something that is an experience and then simply becomes a part of their past; rather, there are factors related to trauma that are insidious and if not addressed can change our physiology (Berens et al., 2017; Bucci et al., 2016; Danese et al., 2007; Danese et al., 2011; Danese & McEwen, 2012; De Bellis & Zisk, 2014; National Scientific Council on the Developing Child, 2014). Without the proper coping mechanisms, prolonged stress promotes a state of chronic inflammation, which can alter developing biological systems in a child, and be exemplified in the form of chronic disease (Bucci et al., 2016). These chronic conditions include such things as heart disease, stroke, cancer, COPD, diabetes, Alzheimers, and suicide. It can also increase proclivity for coping with substances (Bucci et al., 2016; Chen & Miller, 2012; Miller et al., 2011), which are ways that can be used as a coping strategy. As previously discussed, this series of occurrences can increase our risk for mental health problems and social dysfunction as well.

Estimations of Risk

In terms of understanding risk, if someone had experienced four or more ACEs, he or she would have a seven times greater risk of alcoholism compared to someone else with zero ACEs. For substance use disorders, the risk is over four and a half times (Felitti et al., 1998). For chronic lung disease, the risk is over four times greater, and for heart disease and cancer, it is over two times greater (Cronholm et al., 2015; Felitti et al., 1998).

This trend is seen in persons of young age as well. For school-aged children, one study found that children with four ACEs or more are at a whopping 33 times greater risk of having some type of learning or behavioral problem compared to children with no ACEs (Burke et al., 2011). Adolescents with an ACE score of four were nearly 12 times more likely to have attempted suicide when compared to an adolescent having experienced zero ACEs, and if they had experienced seven or more ACEs, the adolescent was greater than 50 times more likely to have attempted suicide compared to an adolescent with zero ACEs (Dube et al., 2001). Furthermore, an 18-34 year old that had experienced four or more ACEs would have an increased risk of having several different chronic conditions, such as cardiovascular disease, COPD, cancer, depression, or diabetes, when compared to someone else experiencing zero ACEs. For diabetes, this risk increases nearly three and a half times. For COPD, the risk is nearly three times greater. For cardiovascular disease, cancer, and depression, the risk is over two and a half times greater (Sonu et al., 2019).

One striking finding of the ACE study series is the impact on mortality. When these researchers followed these participants forward for about 10 years, what they saw for those who reported having no ACEs was an average lifespan of about 80 years, but for those who reported having six or more ACEs, the average lifespan actually shifted down 20 years to an average of 60 years, with ACE related behaviors only accounting for a portion, but not all of this increased risk of early mortality (Brown et al., 2009). This is a difference of 20 years in the United States – the measurable difference between these two groups being the experience of trauma that was experienced before the age of 18.

An overview of the connection between trauma and the wide array of health problems that can appear decades later has been discussed. Now it is critical to consider the intersection and shared dynamics between trauma, health disparities, and how the coronavirus pandemic has shaped and influenced our understanding of both. These issues can be conceptualized in a Venn diagram, which highlights that each of these topics is related to each other in overlapping ways. (Fig. 1).

Adverse Childhood Experiences and Health Disparities

The relationship or dynamic between childhood trauma and observed health disparities, which has existed for a long time in this country and continues today, must first be addressed in this discourse. An examination of the original list of 10 ACEs reveals one question that repeatedly comes up, "Aren't there more than 10 types of trauma that could be experienced in childhood?" It is realized that the original intent of the ACE



Fig. 1 Venn diagram highlighting the interrelatedness between trauma, health disparities, and the current COVID-19 pandemic. The confluence of these three factors are indicated by parallel lines

researchers was not to draw boundaries around what should be considered potentially traumatic and what should not. The ACE researchers pulled together questions that were already being asked in various surveys through the Kaiser network. So, the answer to this question of "Aren't there more than 10 ACEs?" is, absolutely, unequivocally, yes. The authors of this paper feel it is best illustrated by the concept of a tree of ACEs (Ellis & Dietz, 2017). (Fig. 2).

In the Pair of ACEs Tree, the leaves and the branches represent the interpersonal ACEs or the conventional ACEs that were just discussed. These include such things as abuse, neglect, household stress. As a tree grows, it must grow from a network of roots that provide the foundation for that tree, and so the roots are referred to as Adverse Community Environments. These are factors such as violence in the community, racism, discrimination, poverty or economic disadvantage, and unaffordable housing. In and of themselves, these are independently associated very strongly with a wide array of negative health outcomes. But as it pertains to ACEs, these community-level factors are thought to confer, a constant, contextual pressure out of which the interpersonal ACEs - the leaves and the branches - might occur at a higher frequency, higher severity, or most commonly, in the absence of helpful resources (Bronfenbrenner, 1992; Ellis & Dietz, 2017).

Now, this illustration goes one step further. As a tree grows, the roots are drawing in minerals and nutrients from the surrounding soil. So, in some important ways, the prospective health trajectory of the tree is predicated on what has been in the soil and what is currently in the soil. The soil is referred to as Adverse Collective Historical Events. These are events Fig. 2 The Pair of ACEs Tree indicating multiple types of ACEs and the relationship to adverse community environments. Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. Academic Pediatrics. 17(2017) pp.S86-S93. DOI information: https://doi.org/ 10.1016/j.acap.2016.12.011



Adverse Childhood Experiences

that have conferred an intergenerational impact, such as slavery, Jim Crow Laws, mass incarceration, the Holocaust, forced displacement of Native Americans, forced separation of families at our southern border, and now the coronavirus pandemic. The basis for including the impact of adverse historical events in this discussion is grounded in advances in the field of epigenetics. Recent studies have suggested that the effects of trauma can be inherited across generations, and this can be measured through changes in the epigenome (Babenko et al., 2015; Dias & Ressler, 2014; Franklin et al., 2010; Heijmans et al., 2008; Morgan et al., 1999; Rakyan & Whitelaw, 2003; Vick & Burris, 2017).

A more recent study investigating the prevalence and distribution of ACEs in a broader sample of the United States population, 250,000 adults, found that while ACEs are common across all social demographic categories, ACEs are also disproportionately prevalent in groups that have been historically oppressed and neglected (Merrick et al., 2018). This includes Black and Brown Americans, as well as people who have less than a high school education, make less than \$15,000 a year, are unemployed, and identify as LGBTQ.

If Black and Brown Americans are indeed more likely to experience more ACEs, and ACEs are strongly associated with a multitude of negative health outcomes, which includes six or seven of the leading causes of death in the United States, then inevitably there will be an emergence and persistence of health disparities. One example of this is heart disease (Mensah & Brown, 2007). What can be appreciated from this graph from the Centers for Disease Control and Prevention (Fig. 3), is that Black Americans have had and continue to have the highest rate of deaths from heart disease of any racial group that is measured in the United States. Taking a step back and thinking specifically about the risk factors for heart disease, the same trend remains (National Center for Health Statistics, 2019). Black and Brown Americans are more likely to have high blood pressure, obesity, and diabetes compared to other racial groups. These same risk factors also increase the risk for hospitalization, severe illness, and death from COVID-19 (Centers for Disease Control and Prevention, 2020; Lu et al., 2020; Wu et al., 2020). This is a brief discussion of the relationship between trauma and why the disparities we see today exist. It is of paramount importance that when we discuss health disparities, we cannot leave out a discussion about the historical and community level traumas that have created the foundation of these conditions for the disparities in health outcomes that persist today.

COVID-19 and Health Disparities

Another important relationship to highlight is the association between the coronavirus pandemic and these disparities in terms of case rates and fatalities. In states that have been measuring this data, higher case rates, and death rates from COVID-19 have been observed among nearly all minority populations compared to White Americans. When we look at the United States, from data obtained on February 4, 2021, we see that the preponderance of deaths from coronavirus were African Americans, American Indian / Alaska Native compared to White Americans (The COVID Racial Data Tracker at the Atlantic, 2021). (Fig. 4) This alarming fact is not isolated to the United States. Minority populations across the world continue to experience the highest overall actual COVID-19 mortality rates— higher than the majority population, who have the lowest actual rates.

Why do these COVID-19 disparities exist? Importantly, none of these reasons were caused by the coronavirus – if anything, COVID-19 simply shined a spotlight on these disparities that have always been there, simmering beneath the surface of our societal consciousness.

One of the causes of these disparities is the inequitable living conditions and environments in the United States. Due in large part to racial housing segregation, minority and **Fig. 3** The age-adjusted death rates for heart disease, by race and Hispanic origin: 1999–2017. Centers for Disease Control and Prevention. Health, United States Spotlight: Racial and Ethnic Disparities in Heart Disease. Atlanta, GA. 2019



low-income individuals are more likely to live in densely populated areas where recommendations to maintain social distancing practices are less feasible. Further, minorities are disproportionately overrepresented in neighborhoods of concentrated poverty, which is highly detrimental to overall health status (Aber et al., 1997; Brody et al., 2014; Giovanelli et al., 2016; Johnson et al., 2016) and is associated with decreased access to health-promoting resources such as grocery stores with fresh produce (Hilmers et al., 2012), critical behavioral and mental health services (Hodgkinson et al., 2017; McGuire & Miranda, 2008), quality education, public transportation, and more (Woolf & Braveman, 2011). On top of this, one of the major settings of the COVID-19 pandemic has been our jails and prisons. Through the crisis of mass incarceration, Black and Brown Americans are disproportionately represented in those facilities as well.

The second reason that these disparities exist relates to the work circumstances or conditions that are common among people of color. Minority groups are more likely to be employed in a non-healthcare service industry where they are considered an essential worker (Blau et al., 2020; Mein, 2020). This means that there is likely greater and more frequent exposure to COVID-19 and less of an ability to stay home to maintain social distancing. Further, the types of jobs that are considered "essential" are often low-wage, non-salaried positions that do not include paid sick leave, which conceivably could confer pressure on an individual to continue working even if symptoms were to develop (Schneider & Harknett, 2020).

Fig. 4 COVID-19 case and death rates per 100,000 people in the United States through February 4, 2021. Population data was from the United States Census Bureau, ACS Demographic and Housing Estimates 2019. Data of COVID-19 cases and deaths are from The COVID Tracking Project at The Atlantic, Infection and Mortality by Race and Ethnicity. Washington, DC. Data obtained Feb 4, 2021. Data collected with Latinx in the race category was excluded to match with the five racial categories collected by the US Census Bureau



A third reason why racial disparities in cases and deaths from COVID-19 are occurring is due to the inequitable distribution and prevalence of preventable chronic disease outcomes that existed well before COVID-19. It is well established that Black and Brown Americans experience worse outcomes from breast and colorectal cancer, diabetes, cardiovascular disease, substance use disorders, mental health problems, and more (Agency for Healthcare Research and Quality, 2015). Studies of the 1918 influenza pandemic, as well as the 2009 H1N1 influenza pandemic, showed worse outcomes in marginalized populations of the time (Bambra et al., 2020). Though the reasons for why such disparities exist are complicated and multifaceted, nonetheless, the net consequence is a baseline difference in the overall health among racial groups. Recent studies examining risk factors for poor outcomes from COVID-19 have observed that individuals with chronic disease are at a higher risk for worse outcomes (Lu et al., 2020; Price-Haywood et al., 2020). Thus, contrary to the many claims that COVID-19 would be the "Great Equalizer," the advent of COVID-19 has instead exacerbated underlying health disparities.

Numerous, reinforcing factors related to a higher likelihood of contracting the virus impact marginalized communities. As mentioned, such things as greater workplace exposures, including an inability to work from home or no access to sick days, living in geographic areas, housing arrangements, or accessing public transportation where the virus can be more easily spread. The fear of losing one's job by taking days off, working from home, or getting a positive COVID test may also have an impact on marginalized communities (Egede & Walker, 2020). Additionally, poorer outcomes are consistently demonstrated after acquiring COVID-19. These outcomes can be attributed in part to less access to testing, a higher presence of underlying health conditions like diabetes, hypertension, and asthma, and receiving delayed or worse medical care. The latter may be a result of a lack of health insurance or access to healthcare (Bambra et al., 2020). The racial disparities in COVID-19 mortality-due to these compounding, elevated risks from the respective systems of housing, labor force, health care systems, and policy responses- further predict the long-term effect of the pandemic on Black and Brown Americans.

COVID-19 and Trauma

An additional dynamic to consider is the relationship between psychosocial trauma and COVID-19. During the first few months of the pandemic, necessary calls for physical distancing and sheltering-in-place were widely touted as an important step to "flatten the curve" and avoid overwhelming the health systems. Many local and state governments subsequently ordered mandatory shutdowns of schools, workplaces, restaurants, places of entertainment, and other "non-essential" businesses. While these acts were necessary to mitigate the spread of COVID-19, many pediatricians and child welfare specialists have expressed concerns about the emergence of unintended consequences affecting the health and social wellbeing of children (Wong et al., 2020). Chief among them includes the closing of institutions that were typically places of detection and reporting of childhood maltreatment, such as schools and health clinics. Despite widespread concern that the pandemic and resulting shelter-in-place orders would lead to an increased incidence of child abuse and neglect, the number of reported cases of childhood maltreatment has decreased substantially (Lawson et al., 2020). Prior studies have observed an association between natural disasters and an increased incidence of child maltreatment and intimate partner violence (Campbell, 2020; Curtis et al., 2000). Thus, there is a considerable basis for concern of child maltreatment that is going undetected and unreported in the midst of this pandemic due to decreased interaction with mandatory reporters of child abuse.

Another important implication of shelter-in-place orders during COVID-19 is the potential exacerbation of substance use disorders and mental health problems (Ornell et al., 2020; Vindegaard & Benros, 2020). With the widespread closure of health clinics, adults who would otherwise undergo treatment or therapy were left without access to these resources. Further, the stress of the pandemic may increase the risk of coping through risky alcohol consumption or illicit substance use (Ornell et al., 2020). As the ACE Study and other studies have highlighted, uncontrolled or unaddressed mental health problems and substance use disorders are well-established risk factors for child maltreatment (Child Welfare Information Gateway, 2003).

Third, we must acknowledge that this pandemic is traumatic itself. One of the reasons that long-term abuse in childhood is traumatic for children is because it's often an unpredictable scenario for the child. The sense of uncertainty or not knowing what's ahead can create distress, potentially exacerbating underlying anxiety and depression. This is happening on a global scale and that sense of uncertainty can create distress in us. It is important to acknowledge this and understand that this is a phenomenon that has and still is affecting everybody. This may help grow in us a sense of compassion and understanding for each other. No one is coming out of this unscathed. Many have lost their life. Many have lost loved ones. Many have lost jobs and so much more.

A Trauma-Informed Approach as a Key Framework for how the Healthcare Community Can Respond

A trauma-informed approach to health care, to be clear, is not a checklist, but rather a framework that involves the entire care team as well as a much broader system-based approach to realize the effects of trauma, recognize the signs, respond to this understanding, and resist re-traumatization of individuals and staff (DeCandia & Guarino, 2015; Oral et al., 2016; Substance Abuse and Mental Health Services Administration, 2014). A trauma informed approach is grounded in understanding first how trauma affects health across the life-course and then providing guidance as to how health providers can interact with patients who may have a lived experience of trauma. Importantly, psychosocial trauma is not always outwardly visible; on the contrary, trauma can be a dynamic humans have become incredibly adept at keeping hidden behind closed doors. These behaviors, as well as other non-verbal cues, can be a way to recognize trauma and must be recognized as language in the individuals we interact with. Nonetheless, given the widespread prevalence of trauma and the multitude of ways it disrupts health and well-being, the argument could be made that having this understanding should inform the way that health providers interact with individuals.

The six key principles that have been identified that help to give shape and form to this idea of a trauma informed approach are: 1) safety, 2) trustworthiness and transparency, 3) peer support, 4) collaboration and mutuality, 5) empowerment, voice and choice, and 6) cultural, historical, and gender issues (Substance Abuse and Mental Health Services Administration, 2014). Health systems must provide a safe environment for both individuals receiving care as well as care providers. This sense of safety will provide the setting to discuss trauma. Health providers should then seek to earn and build trust with those whom we are working with and those whom we are serving. Health providers cannot assume that trust is inherently there and should actively work to earn that trust. One way to build that trust is by providing a setting for support, collaboration, mutuality, empowerment, voice, and choice. To do so, health providers must have a meaningful understanding of cultural, historical, and gender issues to move beyond biases and stereotypes that provide trauma to individuals receiving care and care providers. These are also crucial principles that are focused on sharing power, giving back autonomy, and dismantling the manmade hierarchy that was created in our health systems and in our other human services. Institutions have precluded people from being and feeling like they are a part of their own healing process, a part of their own care. Because of this, health providers must actively work to overcome the hierarchy that was made to create an environment of safety, trust, and inclusion.

Implementing a trauma informed approach can seem daunting, but incrementally making this shift is recommended. The first step is to provide trauma informed training to all members of the staff. All members of the team should understand trauma and how it can have a lifelong impact on children (Machtinger et al., 2015). The next step should be to understand what the community can offer in terms of resources for children undergoing trauma. Identifying traumatic experiences may help providers understand what a child is going through, but to best help the child, providers must take the next step and refer that child to interventions to help the healing process (Machtinger et al., 2015). Then, providers should implement a screening mechanism for all individuals coming into a clinic. This can be one of a number of screening tools for trauma and should be tailored for the population that is being served. This approach will help healthcare providers understand the burden of trauma children are experiencing and improve a child's resilience (Machtinger et al., 2015).

Conclusion

At the center of all of these principles of a trauma informed approach is this notion that the way that we heal from trauma and the way we prevent an experience from becoming traumatic is through relationships. When children have a safe, stable, nurturing relationship with an adult caregiver, the chances of having resilience are dramatically increased (Center on the Developing Child, Harvard University, n.d.). And so if resilience is there, in the face of potentially traumatic events, that experience is not something that causes all of these consequences that we have discussed. But, it becomes an experience for the individual that is formative in part of their growth and future success. The COVID-19 pandemic has and will continue, to cause trauma to many individuals, especially Black and Brown Americans and other marginalized groups. For many children, this pandemic will be the cause of ACEs. The irony of trauma is that it can drive us towards loneliness and isolation. It can create a narrative, in our brains that I'm done with relationships. It can create an internal monologue that "This hasn't worked for me. I'm better off alone." But that could not be a greater falsehood. That comes from trauma. In fact, what we need right now, especially in this pandemic, is connection. We need relationships because that is the gateway for empathy. Listening, hearing each other, advocating for one another on both individual and community and societal levels. Connectedness is the starting point. It's our way out. It's not going to undo the disparities that have been simmering and have been there for generations and generations, but it's a starting point. We all need to support one another, especially in this unprecedented time.

Abbreviations COVID-19, Coronavirus disease 2019; ACEs, Adverse Childhood Experiences

Declarations

Conflict of Interest None.

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