The Interconnections and Effects of Intergenerational Trauma and ACEs on the Brain and Black Community

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Introduction

Intergenerational trauma is a concept that bears many names. Some call it transgenerational trauma, some call it multi-generational trauma, in communities of color it is sometimes called generational curses- the list of names can go on. Though it may go by many names, the definition remains consistent. Intergenerational trauma is the passing down of effects that stem from a traumatic event or experience (Franco, 2020). Typically this transmission occurs from a caretaker, parent, or guardian to a child, and may often occur without intention or awareness. The trauma can be related to a single event, though it typically refers to high stress situations that continued for an extended period. An example of this is seen with the survivors of the Holocaust and their children, with the results of the exposure to such a continuously stressful situation (anxiety, feelings of guilt, etc) being continously passed down from one generation to the next (Daskalakis et al, 2020). Another example of this would be the legacy of slavery and its effects that are unconsciously passed down from generation to generation in the Black community (Graff, 2014). The effects of intergenerational trauma are wide reaching, and have been documented to impact not only the brain by raising the level of the body's stress response and production of cortisol (Burke Harris, 2018), but also the physical and mental health of those who experience it.

Intergenerational trauma (which will now be mostly referred to as IGT) is not something that is hard to recognize when one knows about it, but having a concrete understanding of what exactly IGT is can be hard due to the limited measurement tools and lack of information. Information on the concept is something that is now becoming more widespread and mainstream, but there are still communities that do not have access to the resources to learn about or recover from it. These communities that do not have access tend to be the ones that typically suffer from

underfunding and are the ones that need the information the most as members of that community tend to suffer from experiences that can cause IGT. One such community is the Black community (Maguire-Jack et al, 2019). As a result of a lack of resources the Black community, which is already more vulnerable to the negative long term effects of ACEs (Conching & Thayer, 2019; McCrea et al., 2019 as cited in Hampton-Anderson et al., 2021), is left to deal with the effects of IGT on their own without the proper knowledge that there are interventions available to combat the lingering effects. It is important to learn about IGT as well as learn what interventions and preventions can be used to mitigate the effects. In this paper I will elaborate more on what IGT is, go over ACEs as a measurement tool for childhood trauma as well as review some possible effects on the brain and Black community.

Intergenerational Trauma

Intergenerational trauma (IGT) is the passing down of effects that stem from a traumatic event or experience (Franco, 2020). While most research generally focuses on caretaker to child interactions and passing of trauma, there is belief that the impact may span across multiple generations (Lev-Wiesel, 2007) especially if no intervention is performed. It is important to take this into account as it can change the way that intervention has to happen, specifically because the effects that are passed down can present differently in different generations. For example, there was a study done that looked at the passing of trauma in Holocaust survivors, their children and their grandchildren. The study found that all 3 generations agreed that only family members could be trusted (which was passed down from the direct survivor), however it shows differently in each generation (Lev-Wiesel, 2007). In the first generation the survivor needed to know where the children were at all times, in the second generation they felt

constricted by their caretaker but also felt an increased need to watch out for everyone in the family, and in the third generation it showed a reliance on only those in the first and second generations (Lev-Weisel, 2007). In each generation there is a mistrust of others who are outside of their family sphere, however, intervention would likely be different for each generation.

While future generations may not have had the same experience as the first generation, it is still possible for them to develop what is called secondary traumatic stress (Lev-Wiesel, 2007). Secondary traumatic stress is said to have extremely similar symptoms to PTSD itself (Figley, 1995 qtd in Lev-Wiesel, 2007). In another study about the children and grandchildren of Holocaust survivors, it was found that the children were more likely to have symptoms of anxiety, depression, and PTSD compared to other children with Jewish parents who did not experience the Holocaust (Daskalakis et al., 2020). So why is it that IGT is able to be passed down so easily? Is it due to the nature of the brain being changed from the experience? Is it due to the nurturing of a child as they grow, with the caretaker unconsciously passing down their feelings related to the experience? It would be easier if it could be said for certain that it is 100% one thing or the other, but in reality it is actually a mix. While there are numerous amounts of evidence that say IGT has an influence on the brain (Burke Harris, 2018; Danese & Lewis, 2016; Daskalakis et al., 2020; van der Kolk, 2014), there is also evidence that says it may also be due to the caretaker themselves and their behaviors (Graff, 2014; Lev-Wiesel, 2007).

ACEs

In life, people are bound to deal with things that may be traumatic both in childhood and in adulthood. Some of those events people may be able to brush off, however other events may have a life changing impact. The experiences that seem to have the deepest impact on the brain

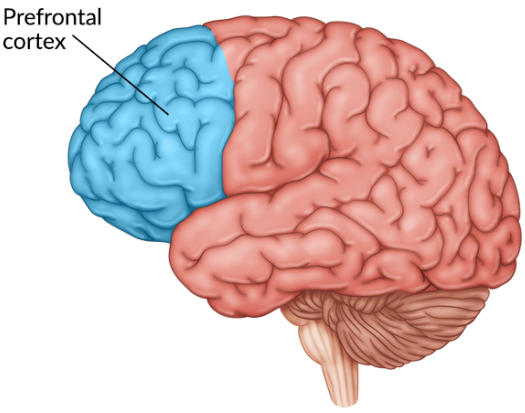
and body, however, seem to be events that happen in childhood, otherwise known as ACEs. The term ACEs stands for adverse childhood experiences (Felitti et al., 1998), and this is commonly used as a measurement tool for childhood trauma. Childhood can be pretty traumatic in its own way, from scraped knees being the worst pain of a young life to the awkwardness of teen years (which is definitely a trauma of its own) which makes it extremely important to clearly define exactly what ACEs are. ACEs do not encompass all types of childhood trauma, rather it focuses on 7 specific categories of long term exposure (Felitti et al., 1998) though some studies use 9 (Maguire-Jack, Lanier & Lombardi, 2019). The original 7 categories (the CDC now uses 10 categories) are as follows; psychological abuse, physical abuse, contact sexual abuse, expsoure to substance abuse, mental illness, violent treatment of mother or stepmother, and criminal behavior in the household (Felitti et al., 1998). The studies that follow the 9 ACEs model include the 7 categories listed previously in addition to the added categories of neighborhood violence and racial/ethinic discimination (Maguire-Jack, Lanier & Lombardi, 2019). The ACE test (a self-reporting questionnaire designed to assess scores in these 7 or 10 categories) is ranked on a scale of 0-7 (10) and is used to rank levels of childhood adversity. So you take a test and get assigned a number, is it really that important?

Yes, yes it is that important. The ACE study was created because doctors believed that there was a link between adverse childhood experiences and physical health later on in life (Felitti et al., 1998). After much research was done, it was found that there is indeed a correlation between trauma experienced in childhood and health later on in life (Burke-Harris, 2018; Felitti et al., 1998; Maguire-Jack, Lanier & Lombardi, 2019). Having a traumatic childhood can do more than just affect someone's brain and mental health, it could impact their future physical health as well. When the ACE study was created by Felitti and his colleagues, they asked 17,500

people about their exposure to ACEs and found that about 67% of the population had been exposed to at least one ACE (1998). One ACE may not seem like a lot, but it brings to light just how common experiencing an ACE is. 67% out of 17,500 people experienced at least one, it makes you wonder just what that percentage is out of 330 million people.

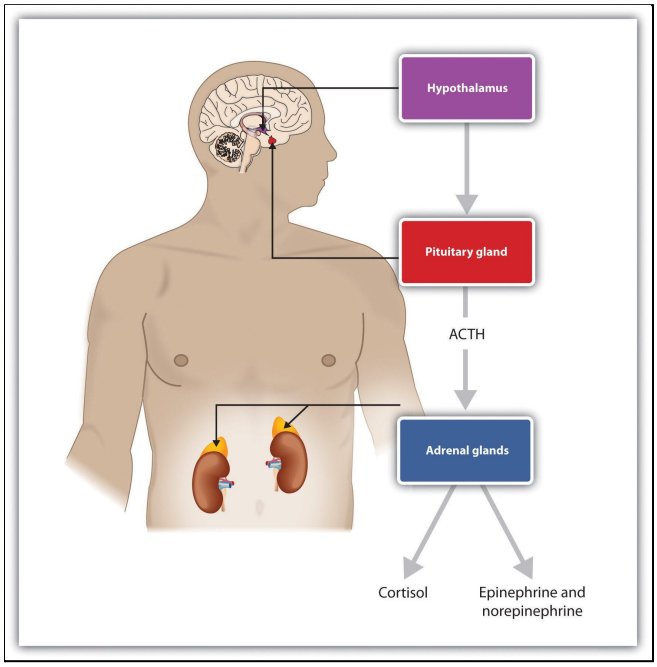
Brain

Before we (further) discuss the effects of IGT, it is important to know what areas of the brain that repeated stress affects. Though the entire brain can be affected by the constant presence of stress, there are several parts of the brain that are specifically targeted. These areas include the amygdala, the prefrontal cortex, the hippocampus, and the HPA axis (Burke Harris, 2018) to name just a few. To better visualize this idea, imagine that you are on a train inside the brain. You board the station where your eyes would be and your first stop above ground is the prefrontal cortex (PFC) which is located at the front of your brain (think your forehead). The prefrontal cortex is responsible for regulating your cognitive and executive functions like thinking skills, self control, judgment, emotional regulation, etc (Burke Harris, 2018). During periods of stress, the prefrontal cortex does not function at regular capacity (Burke Harris, 2018). Relating to the train metaphor, it goes from accepting passengers to saying 'not in service'. Rather than functioning normally, the PFC experiences a decrease in functioning and starts getting swamped with noradrenaline (Burke Harris, 2018). Noradrenaline increases alertness and reaction time, so

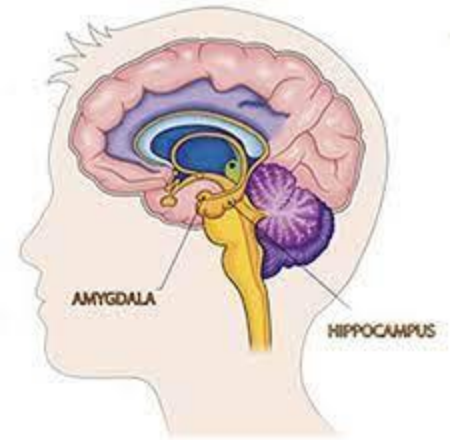


when it is flooding the body it is helping to prepare it for fight, flight or freeze status. When this occurs it can be damaging to the PFC as it inhibits the original function (Burke Harris, 2018).

You board the train again and this time the train goes one level underground and you pass the HPA axis. The HPA axis consists of the hypothalamus, pituitary glands, and adrenal glands. The HPA axis is responsible for regulating the body's stress response and producing cortisol. Cortisol is a stress hormone that can help the body adapt to repeated stressors (Burke Harris, 2018). It does this by raising your blood pressure and blood sugar, affecting sleep cycles, and triggering the body to crave foods high in sugar and fat (Burke Harris, 2018). In the short term this can be important because similarly to regular adrenaline it can help protect you from sticky situations. However, in the long term it can be damaging. Continuing to use the example of a train, think of cortisol like the brakes. Using them is necessary if the train is coming across a situation where it needs to come to a stop, like a bridge opening or if there is another train on the tracks. However, if the brakes are used too often when they are not needed, it can cause the brake pads to wear away and eventually not be able to stop the train. The same thing can happen with cortisol. If a person is in a stressful situation that causes cortisol to be produced but the person cannot get out of the situation (thus making it a long-term situation), cortisol will continue to be produced which is damaging to the brain's metaphorical brake pads- the hippocampus.



The train continues on and goes down one more level and stops at the station for the amygdala which is in the same area as the hippocampus. They can be found deep in a region called the temporal lobe. In relation to your head, the temporal lobe sits right behind your temples and by your ears on the left side. The amygdala is primarily known as the part of the brain that deals with fear (Burke Harris, 2018), but it also deals with aggression as well. The problem with prolonged activation of the amygdala is that it can begin sending false signals to the rest of your brain (Burke Harris, 2018). This has the capacity to make a person think that things that would not normally be scary to them seem terrifying. In addition to over stimulating the amygdala, the hippocampus is also affected. Cortisol, the stress hormone that was discussed earlier, can be beneficial in moderation. However, in cases where it is continuously produced it can become damaging to the hippocampus. The hippocampus is the region of the brain that has a large impact on learning and memory. When this region is damaged it can shrink due to an excess of cortisol, which in turn can cause problems with creating short term and long term memories (Burke Harris, 2018). Going back to the train metaphor, too much cortisol can metaphorically destroy our breaks, or in this case severely mess with the hippocampus.



Neuroplasticity

It is important to note that not every change to the brain is permanent. The brain has the capacity to be very flexible and change based on exposure (Voss et al., 2017). Neurons (those little connections in the brain that help in remembering how to ride a bike, how to speak a

language, etc) can be created or destroyed based on usage. Once they are created there is no guarantee that they will stay, and once they are destroyed there is no guarantee that they will stay gone. The ability for the brain to change based on exposure to stimuli is called plasticity (Voss et al., 2017). It is believed that plasticity is strongest in childhood, which can be why children seem to pick up skills more easily compared to adults. However, plasticity does not end in childhood as it can still occur in all stages of life (Voss et al., 2017).

Effects of ACEs in Childhood

Coming back to ACEs, the effects of adverse childhood experiences on someone's physical and mental health do not always wait to present themselves in adulthood. Sometimes the effects can begin showing early on in childhood. The effects of ACEs will vary depending on multiple factors such as what type of ACE was experienced, if there were pre-existing conditions beforehand, etc, so it cannot be said that all effects show themselves in the same way. However, through studies done using young animals (such as rats and mice, whose brain structures are similar to the structure of the human brain), it has been found that early exposure to stressors may result in elevated inflammation levels (Danese & Lewis, 2017). This is important because elevated levels of inflammation signal the activation of the immune system. During childhood, the immune system is not fully developed (Danese & Lewis, 2017) which can be seen by how easily children get sick. This inflammation is not always shown in the typical way that people expect with outward swelling or redness, rather it is an inflammation that specifically targets parts inside the body (Danese & Lewis, 2017). When the immune system is active for too long of a period it can become more harmful than beneficial (think of autoimmune disease, the immune system is *too* active and cannot tell the difference between harmful cells and

the regular ones; so it destroys them both). The increased levels of inflammation have been linked to impaired thinking and a heightened reaction to threats, very similar to the same effects of childhood trauma (Danese & Lewis, 2017). While regarded as two separate entities, it seems likely that ACEs have an influence on early-life immune system activation.

In addition to having an effect on the formation of the developing immune system, ACEs may have an impact on overall growth and development in general. There have been instances where children, who had experienced multiple ACEs, stopped growing due to trauma (Burke Harris, 2018). The body has two systems called the parasympathetic nervous system (PNS) and the sympathetic nervous system (SNS). The PNS is responsible for what can be called "rest and digest", which is when the body is in a state of calm. It is during this process that the body does things that are not generally needed for immediate survival, like digesting food and allowing a person to be in a relatively relaxed state. The SNS is responsible for the opposite, and is most known for "fight or flight", though most people forget to add the "freeze". The SNS activates during times of stress, specifically where survival might be at risk. During this time anything that is considered not needed for survival is put on pause and all of the body's focus goes towards surviving. When the danger has passed, the SNS takes a back seat and the PNS is free to drive again. When that does not happen, cases like the ones of children not growing as they should appear, because growing is not something that is directly needed for survival and with the constant activation of SNS, growing takes a back seat (Burke-Harris, 2018). If caught early, a lot of the early damage done by ACEs can be rectified to some extent (Burke-Harris, 2018). However, in cases where the damage is not detected early (or at all) or is not able to be rectified, the effects can follow a person into adulthood.

In addition to having an effect on physical health in childhood, ACEs can also have an effect on mental health. Children with ACEs are more likely to experience anger, anxiety, and depression compared to children who have no ACEs (Felitti et al., 1998). There may be multiple reasons for this, but one reason may be due to emotion dysregulation (McLaughlin & Hatzenbuehler, 2009). Emotion dysregulation is when emotions are not regulated in the way that is expected or if a lack of understanding of emotions is shown (McLaughlin & Hatzenbuehler, 2009). Essentially, this means that emotions are not processed in an effective way that would involve them not being internalized. Instead of recognizing the emotions and processing them in a healthy way, it is possible that due to the way some children are raised they are unable to properly process their emotions which in turn may lead to them to internalize their stress (McLaughlin & Hatzenbuehler, 2009). This can be particularly harmful as childhood is the time that children learn how to handle their emotions and regulate them which carries on into adulthood. If they are unable to learn how to process their emotions and regulate them in childhood, it may leave them unable (or make it extremely difficult) to do so in adulthood.

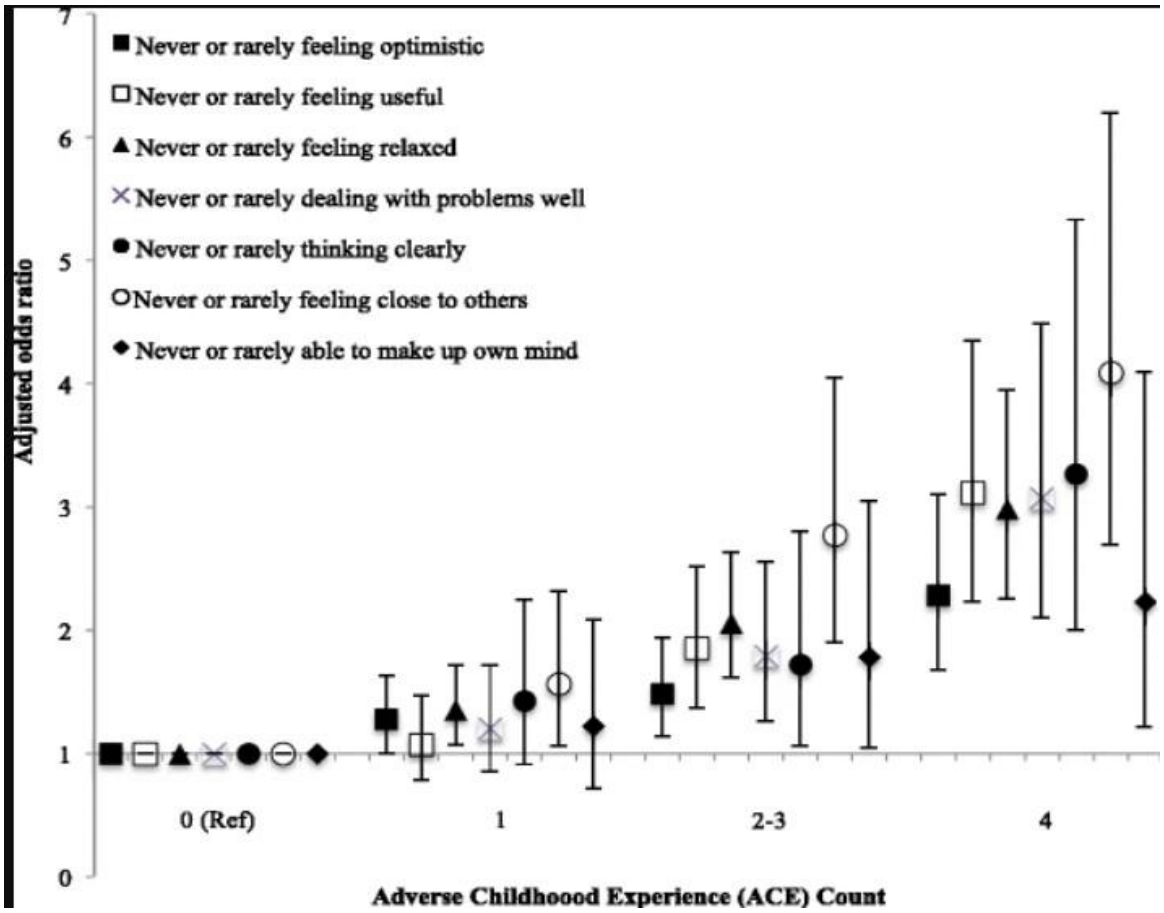
Effects of ACEs in Adulthood

Even if the effects of childhood adversity do not present themselves in childhood, they still lurk in the background. It has been found that exposure to ACEs increases the risk of illness (both physical and mental) later on in life depending on the number of ACEs a person has been exposed to (Felitti et al., 1998; Burke-Harris, 2018). For example, those who experience 4 or more ACEs are twice as likely to develop heart disease, nearly three times as likely to have a stroke (Burke-Harris, 2018), etc. This could be due to the high amounts of stress (that we discussed earlier can lead to increased inflammation in the body), however it is also due to the

fact that exposure to ACEs makes people more susceptible to participate in high risk activities such as smoking, excessive drinking (alcoholism), substance use abuse, etc (Felitti et al., 1998). The specific risk factors listed are ones that may have an immediate benefit when used as a coping mechanism (Felitti et al., 1998). For example, one of the highest risk factors included smoking (the higher amount of ACEs a person had the more likely they would start smoking by the age of 14) and it is known that nicotine has a regulating effect on mood which people may be using to balance out their own feelings (Felitti et al., 1998.) As a result, those who use smoking chronically as a coping technique end up with higher rates of lung cancer and other related smoking diseases (Felitti et al., 1998). The same could be said for those who struggle with severe obesity (as a result of ACEs, severe obesity is another risk factor) and end up with a heart related disease (Felitti et al., 1998). It is not as easy as saying one thing causes the other, but there is a great amount of evidence that shows that ACEs may be part of the reason behind why those risk factors affect people in the first place.

As a result of ACEs having a correlation with the appearance of different diseases, research has been done to see how prescription use would correlate with ACEs (Anda et al., 2008). It was found that overall, people who experienced 5 or more ACEs are 40-60% more likely to have multiple prescriptions for different maladies compared to those with 0 ACEs, especially in younger people(Anda et al., 2008). This supports the research that states that people with higher amounts of ACEs have higher levels of chronic illnesses (Felitti et al., 1998). In addition to having higher levels of chronic illnesses, adults who have experienced multiple ACEs as children are also more likely to suffer from mental disorders in adulthood (Hughes et al., 2016). They are also at an increased risk of being generally dissatisfied with their lives which is a sign of poor mental health outcomes (Hughes et al., 2016). Adults with one ACE are

more likely to report low life satisfaction and lower levels of clear thinking, happiness, feeling relaxed, etc (Hughes et al., 2016). Adults with four or more ACEs are four times as likely to experience these things as well (Hughes et al., 2016). This falls in line with the idea that adults with ACEs are more likely to experience depression, anxiety, and other mental disorders which can all contribute to low life satisfaction and difficulties with feeling happy and relaxed. In relation to IGT, it may be possible that the children of adults with mental disorders are more likely to have a higher chance of having poor mental health themselves (Hughes et al., 2016) which keeps the cycle of IGT going.

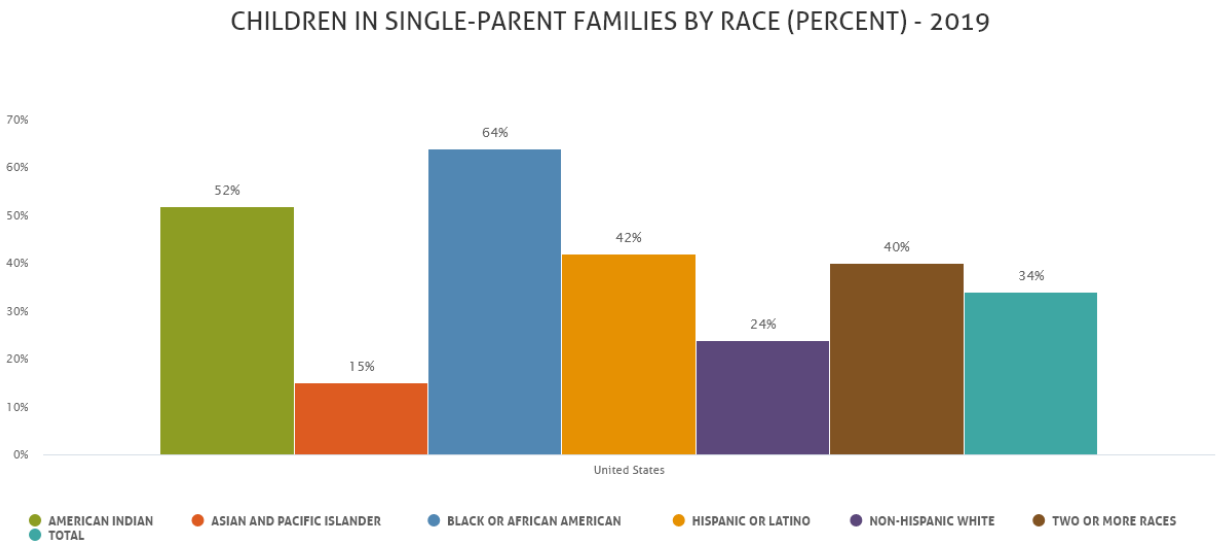


Img. Graph showing the presence of poor mental health indicators based on number of ACEs, those with 4 or more ACEs more likely to have higher presence of indicators (Hughes et al., 2016)

Black Community

The Black community in the United States is one of many ethnic groups that has experienced a collective trauma, but it is one of the few groups that are not acknowledged for that trauma. The first of many collective traumas that the Black community experienced dates back to the beginning of slavery. When the slave trade first began, enslaved people experienced a series of ongoing trauma. They were taken from their families, from their home, and from their culture (Graff, 2014). This resulted in a complete loss of identity (Graff, 2014), and not only is that a trauma of its own, they were then forced into unpaid slave labor. They were treated brutally, forced to watch as family members died or were sold without reprieve. During that time they were in a constant state of stress, a constant state of awareness and that was passed down from generation to generation. Even when slavery came to an end, the passing down of that constant state of awareness did not stop; the end of slavery did not mean that the Black community was safe. Instead of living in slavery, they now had to face the era of Jim Crow (Graff, 2014). During the Jim Crow era, the constant stress of if they would be killed followed them (Graff, 2014) and there is no doubt that it continued into the Civil Rights Era. The Civil Rights movement may have been the movement to end Jim Crow, but it did not dismantle the racial barriers that were encoded into the law which led to high rates of incarceration (Graff, 2014), rates that are still seen today. The Black Community is still in a constant state of stress and heightened awareness, and though it is sad to say, it is likely that it will remain that way for a long period of time. If it was not slavery, then it was Jim Crow, and if it was not Jim Crow, it is police brutality or racial discrimination. It is no wonder that the Black community is constantly stressed when it feels as though they have to keep their eyes peeled and always watch to see what is over their shoulder.

Black Family Unit



National KIDS COUNT from datacenter.kidscount.org

Slavery in America did not just steal the cultural and personal identity of enslaved people, rather it also had a hand in dismantling the Black family unit. A common stereotype in the Black community is that Black children do not have fathers that are in the picture, and for a large percentage of the Black community that is true. However, this did not start recently, it dates back to the days of slavery where fathers were often separated from their wives and children which eventually turned into them leaving on their own (Fletchman Smith, 2011 qtd by Graff, 2014). This is part of the reason why so many Black children still live in single parent households today and it is a tangible example of IGT and how the effects of the past still appear in the modern day.

Racial Discrimination

From the time that our ancestors were brought to the United States (and other countries) against their will, the Black community has been subjected to racism and racial discrimination. To briefly go over the definitions of both, racism is an exercise of power against minority groups that are deemed inferior to a majority group (Bernard et al., 2021). Racism can be perpetuated by both individuals and institutions (the term systemic racism comes to mind) and can be done both intentionally and unintentionally (microaggressions). Racial discrimination is very similar in definition, however, it is intentional. An example of this would be segregation, something that still occurs today in more subtle ways. Racial discrimination is something that a lot of people in the Black community doubtlessly encounter multiple times in their lives starting from a young age, and it is widely accepted that racial discrimination and racism are both stressors to members of the Black community (Bernard et al., 2021; Berger & Sarnyai, 2014). In fact, it has been found that experiences related to racism and racial discrimination appear to be the most chronic stressors that Black children and adolescents have to deal with during their development (Jones et al., 2020; Priest et al., 2013 qtd in Bernard et al., 2021). Sadly, it makes a lot of sense, especially depending on the region (a lot of people may believe that racism does not exist in the North, and they would be incorrect) and the fact that no matter where they go, there is still the possibility of being exposed to racism.

In addition to personally experiencing racial discrimination and racism, more hidden instances of racism are now front and center due to the use of social media. Everyday the Black community is exposed to the horrors of reality, whether it comes to police brutality and the murders of members of the Black community (whether innocent or guilty, their fate was decided without a court and they stood no chance); or if it comes with the passing of increasingly

discriminatory legislation that makes people who lived through the Civil Rights movement say that nothing has changed. Or even just seeing what can happen to people for being Black, being chased down while jogging and being brutally murdered in broad daylight, the list goes on. The constant exposure to more instances of racism and racial discrimination holds the possibility of proving itself to be a chronic stressor as well as it can cause feelings of paranoia and anxiety, specifically when it comes to just living while being Black.

Despite the fact that it has been acknowledged that racial discrimination and racism hold the potential be chronic stressors that could cause reactions similar to ACEs such as causing psychological, physical, behavioral, and emotional issues (Bernard et al., 2021), racial discrimination and racism are not considered ACEs by the official model when they should be. However, what is acknowledged is the idea that racial discrimination and racism are forms of trauma and should be termed as such (Bernard et al., 2021). This is supported by the fact that effects of racial trauma present themselves similarly to the effects of traumatic stress, including an increased risk for negative mental health outcomes (Bernard et al., 2021). While the Black community is specifically being focused on in this instance, the concept can apply to many other ethnic groups that experience racism and racial discrimination. Though some groups seem to be more blatantly discriminated against compared to others, racial trauma impacts each group in its own way.

Racial trauma could be seen as a form of intergenerational trauma that is two fold. On one side there are groups who are discriminated against and constantly deal with the trauma of racism and being treated as less than human generation after generation. On the other side there are those who treat those groups as less than because they learn it from their guardians/parents. Those who are discriminated against take care to protect themselves by sticking to the people

and community that they know and regarding others outside of the community with suspicion which can result in paranoia being passed down; while those who discriminate are taught these behaviors and eventually internalize them because they were never taught any different and so they come to believe that it is what they must do. While the discriminators certainly do not seem to be suffering from the trauma aspect, it is something that becomes generational due to a multitude of factors. Without some sort of change, the cycle will continue to persist and who is to say that even with intervention that it would change at all.

ACEs in the Black Community

In the previous section it was stated that racial discrimination and racism are not officially considered ACEs, though there are some who believe that they should be and incorporate them into their research (McGuire-Jack et al., 2019; Bernard et al., 2021; Hampton-Anderson et al., 2021). The reason why racial trauma is not incorporated into the ACEs scale is simply because when the ACE study was first created, it heavily featured White people (Felitti et al., 1998). This was in part due to the area where the study first took place (Southern California) and in part due to the representation of the area which was a majority White area. As such, there was seemingly no reason to incorporate a racial aspect into the study.

Demographic Information for CDC-Kaiser ACE Study Participants, Waves 1 and 2.

Demographic Information	Percent (N = 17,337)
Gender	
Female	54.0%
Male	46.0%
Race/Ethnicity	
White	74.8%
Black	4.5%
Asian/Pacific Islander	7.2%
Other	2.3%
Hispanic	11.2%

Img. ACE study participant statistics, cdc.gov

Despite racial discrimination and racism not being considered ACEs, on the official scale Black children are more likely to have experienced higher amounts (three or more) of ACEs compared to other ethnic groups (Hampton-Anderson et al., 2021, Bernard et al., 2021, McGuire-Jack et al., 2019). Black children are also more likely to experience nearly every type of ACE besides parental drug use and mental illness, an area in which White children were more likely to experience (McGuire-Jack et al., 2019). That is a large amount of ACEs for Black children to experience, and that is not even counting racial trauma. When considering racial trauma as an ACE, the numbers undoubtedly increase.

Attachment Styles & IGT

Attachment is an aspect of a relationship between a child and their caregiver in which the child feels safe, secure, and protected while in the presence of their caregiver (Benoit, 2004).

Often called attachment styles, this relationship begins to be developed in infancy and continues on throughout a person's life. Children form attachment with their guardians and new caregivers (teachers, nannies, etc), and adults form attachments with their partners and friends. How these attachments form, however, can be skewed by the very first attachment formed between guardian and child.

There are four major types of attachment styles; secure attachment, avoidant-dismissive (insecure avoidant) attachment, ambivalent (insecure-resistant) attachment, and disorganized attachment. Secure attachment occurs when caregivers consistently respond in a positive manner to displays of emotions in an infant, specifically in situations where the infant is displaying negative emotion such as crying due to being upset, sick, or hurt (Benoit, 2004). In unsafe or unknown situations, infants feel safe with their caregiver which can demonstrate secure attachment. Ambivalent attachment occurs when caregivers respond in inconsistent ways to displays of negative emotions by infants (Benoit, 2004). An example of this would be a caregiver picking up a crying baby and soothing them for an entire week, and then the next week completely ignoring them when they cry. As a result infants then begin to exaggerate their displays of distress in hopes of getting attention that may or may not come (Benoit, 2004). Avoidant-dismissive attachment occurs when caregivers either completely ignore or react negatively to displays of distress by infants (Benoit, 2004). This would include either ignoring a crying baby or responding to the crying by yelling because of anger or annoyance (Benoit, 2004). Lastly, disorganized (sometimes called fearful-avoidant) attachment occurs when a caregiver displays erratic behavior that may be caused by unresolved trauma (Benoit, 2004). In this case the caregiver serves as both a source of comfort and a source of fear which can cause confusion in infants as the behavior is not restricted to only during moments of distress but at all

times (Benoit, 2004). Attachment styles are not formed overnight and so when the attachment style develops it means that the behavior that led to it has been going on for a period of time.

The attachment style that was formed in infancy can influence other relationships that a person will form in adulthood. However, it can also influence the relationship between a caregiver and their future child due to the parenting techniques that led to whatever form of attachment they have, and this is where IGT comes into play. Imagine a scenario where a child has an avoidant attachment to their guardian as a result of their guardian yelling at them every time they display emotion. The child eventually learns to keep their emotions to themselves and becomes emotionally distant. That child grows into an adult and then goes on to have their own child, and while they may not yell at their child, due to their emotional distance it may cause their child to develop an attachment style that is not secure as their emotional needs are not being met. Now this is not always the case but it has been seen in certain scenarios. For example, in one research study on Holocaust survivors and their adult children vs adult children of non-Holocaust survivors, it was found that the adult children of Holocaust survivors were more likely to report higher levels of childhood trauma like abuse and neglect (Lev-Wiesel, 2007). Though this study did not look at the attachment styles of the adult children of Holocaust survivors, it is possible that their attachment style may have been disorganized due to the extreme (and likely unresolved) trauma that their parents and guardians experienced (Baranowsky et al., 1998; Yehud et al., 2001, qtd in Lev-Wiesel, 2007). Without realizing it, the way a person forms relationships begins to be influenced at birth and when a caregiver is still metaphorically chained by IGT, the cycle of it can begin anew without anyone being the wiser.

Unempathetic Parenting

"Stop crying before I give you something to cry about." Does that phrase sound familiar? It's certainly a phrase that most if not all of the Black community has heard at some point in their lives. That goes right up there with "What do you have to stress about? You don't know anything about stress." These two phrases do not always come from a place of malice, rather they come from experience. The things that caretakers tell their children are the same things that they heard from their parents/caretakers. The things that their caretakers told them were things that their caretaker's caretaker told them, and the cycle continues on. But how and when did this cycle start in the first place? Like the Black family unit, the cycle started up in slavery.

During the time of slavery there was no such thing as a show of emotion for enslaved people. There was no expressing anger at their treatment, rage at their children being stolen, despair at family members being killed, none of that was allowed (Gump 2000 qtd in Graff, 2014). This emotional distance had to be taught to the children of those enslaved and it is believed that that was done through a lack of empathy during parenting (Graff, 2014). While the lack of empathy may have originated as a defense mechanism it has continued on as a form of IGT. Earlier in the paper, attachment styles were discussed and it was mentioned that to form secure attachment, children need empathy from their parents. They need reassurance that their emotions are valid, however, in the Black community there is a precedent of that reassurance not being given. Now that is absolutely not to say that Black children can never form secure attachments to their parents/guardians, that would be blasphemous to say. However, it is important to bring light to this to give validity to those who have experienced unempathetic parenting and are told that it is just the way things are. As a result of a lack of empathy from parents or guardians, some children form insecure (avoidant-dismissive) attachments with their

caregivers that can cause them to exhibit the same behaviors that their parents did as a result of not getting that emotional reassurance to help them learn to regulate their emotions (Graff, 2014). When they go on to have children, they inadvertently exhibit similar behaviors of being unable to respond to their own infant's emotions with empathy due to not experiencing it for themselves (Graff, 2014).

Though people who form avoidant-dismissive attachments to their parents/guardians are likely to exhibit a lack of empathy to their own children, this does not mean that this is what always happens. Instead, if the issue is recognized and the person takes steps to remold their mindset, it allows them to be able to form secure attachments with their children which is something called "earned secure" and is often associated with the term 'breaking generational curses' or 'breaking the chain'. Breaking these behaviors can be hard, but with proper assistance and guidance it can be done. However, that fact may contribute to the reason why it is so hard to break these 'generational curses' in the Black community, specifically due to a lack of resources. The Black community is known for being an under resourced community and there is not enough effort put into the betterment of the community by the government, and it is hard to fight to get those resources when mental health has the stigma that it does in the Black community and when there are more important things to immediately worry about like rent and food.

Intervention

Though both ACEs and IGT can have lifelong effects, it does not mean that there is no way to prevent or mitigate the effects that they can have. This can be done through one of two ways, prevention and treatment. Prevention would do exactly as the word means, prevent the experiences from happening in the first place or build up resiliency after the fact (Bellazaire,

2018) in order to prevent IGT and ACEs from having long lasting negative effects. Treatment would include finding the root of the issue and engaging in things like therapy to help the person heal from the experience.

Prevention

There are three levels of prevention: primary, secondary, and tertiary. Primary prevention involves steps such as creating universal programs that target the reduction of ACEs and IGT (Hampton-Anderson et al., 2021). Universal programs that may prove beneficial would be school based programs that target children's social emotional skills to help them learn how to manage stress and resolve interpersonal affairs as well as manage their mood and behavior (Hampton-Anderson et al., 2021). While this would be an important step to help prevent ACEs, there would also have to be universal programs put in place that target parents/guardians as well. In the case of IGT, it is passed down by trauma that the parents/guardians experienced when they were children and did not heal from, causing them to unintentionally be molded by the behaviors that they experienced. This in turn may cause them to replicate what they experienced as it is all they know in their parenting which allows IGT to be passed down. In order to prevent this, there should also be programs that target parenting skills (Hampton-Anderson et al., 2021) and provide personal support for the parents/guardians as well as reduce parental stress (Bellazaire, 2018). Specifically in the Black community, this stage can be one of the hardest to adapt to as typically schools in the Black community are already underfunded and under-resourced which may cause an issue with trying to put programs like this in place. Support would be needed from the state in order to provide more funding to these at-risk areas or even to implement them in regions that are not typically considered at risk.

The next form of prevention is secondary prevention. Secondary prevention would include taking action directly after a trauma inducing event occurs (Hampton-Anderson et al., 2021). While this specific step does not prevent the ACE from occurring, it allows for the immediate processing of the event which can in turn make it less likely to become as much of an issue as it would if left untreated (Hampton-Anderson et al., 2021). However, this particular brand of intervention can only be enacted if the caretaker recognizes that it may be an ACE in order to provide secondary prevention, which in turn would mean that there would have to be some sort of programming in place to inform caretakers about ACEs and outline a plan of action that should be taken if they believe that their child has experienced an ACE (remember, ACEs can occur outside of the home sphere as well).

The final form of prevention is tertiary prevention. Tertiary prevention involves therapies that include the caretakers as well as the children (Hampton-Anderson et al., 2021). This is done to help increase supportive parenting in hopes that it can decrease the negative influence of ACEs, and it can be beneficial if the therapy has a cultural basis when dealing with ethnic communities (Hampton-Anderson et al., 2021).

Though there are different types of prevention, what all of them have in common is that they are there to aid in the mitigation of negative effects of ACEs and IGT.

Treatment

Treatment is something that comes with a lot of stigma, specifically in the Black community. When the word “treatment” is heard, it nearly always shares a connotation with ‘medication’ and ‘crazy’. One reason why this may be may be the result of a general mistrust of medicine within the community due to how our ancestors were treated as biological experiments

(the Tuskegee experiment comes to mind) and another part may simply be due to a lack of therapists that understand the plight of the community (as there are not a lot of Black therapists out there, though the number is steadily increasing). Whatever the case may be, it seems rare that members of the Black community will willingly seek out treatment (though that is now changing with Gen Z as they are more outspoken when it comes to their struggles and more willing to seek therapists who understand the community). In the case of the Black community, prevention may be a more valued tactic than treatment, however, it is still important to explain what treatment can be done.

Most of the time treatment is associated with medication, and while that may be the case for those who experience a hormonal imbalance or mental disorder (which can be caused by a hormone imbalance), treatment can also take the form of therapy and self care techniques like yoga (van der Kolk, 2014). Treatment does not have one set form but it involves diving to the root of the issue and uncovering the emotions (often negative) that come with it (van der Kolk, 2014). Treatment can be uncomfortable and it takes being willing to put the effort in to improve and heal as it is a self-involved process, there is no magic cure to solve the lingering effects of trauma. It is also possible that a person may have to try many types of treatment before they find one that works for them. They could try regular therapy where they sit in an office and talk for an hour and find that it does not work for them, maybe they try art therapy and find that that works better but it does not work the best and then they try music therapy and find that that works for them. It can be discouraging when a right fit is not found right away, but it is always important to keep trying.

Discussion

Though acknowledgement of intergenerational trauma is on the rise and can be seen in everyday things like Disney's *Encanto* and *Turning Red* (both movies which are very cute and do a good job at showing real effects of intergenerational trauma), there is still little known about the effects of IGT itself. It has been shown that ACEs can have lifelong effects such as an increased risk of developing a physical or mental illness which can in turn decrease life satisfaction. It can only be assumed that IGT can have the same effects, and yet it is not studied with the fervor that it would be if it affected the country on a grander scale instead of mostly affecting ethnic communities. More research is needed on this topic, specifically to look at the effects and how it can impact multiple generations, as well as research to find progressive treatments and preventions to keep IGT from passing to future generations. In addition to that, the knowledge of what ACEs and IGT are and how they occur should be shared on a grand scale with parents/guardians so that they are able to recognize the signs as knowledge is one of the first steps to implementing change. The different types of treatments must also be discussed in order to help those seeking it make an informed choice as there are many types out there that people simply do not know about.

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