5-2023

Adverse Childhood Experiences (ACEs) and the Impact on Incarceration & Recidivism: Benefits of Treating the Trauma

Faye Neeland

Recommended Citation

Neeland, Faye, "Adverse Childhood Experiences (ACEs) and the Impact on Incarceration & Recidivism: Benefits of Treating the Trauma" (2023). *Culminating Projects in Criminal Justice.* 20.
https://repository.stcloudstate.edu/cjs_etds/20

Adverse Childhood Experiences (ACEs) and the Impact on Incarceration &

Recidivism: Benefits of Treating the Trauma

by

Faye L. Neeland

A Thesis

Submitted to the Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the degree of

Master of Science

in Criminal Justice

May 2023

Thesis Committee:
Douglas Gilbertson Chairperson
Dick Andzenge
Ashley Charwood

Abstract

This paper examined the effects of Adverse Childhood Experiences (ACEs) and, if treating childhood trauma of the incarcerated, lowered the rates of recidivism. I examined not only whether ACEs influenced incarceration rates but also, the benefits of trauma treatment programming among the incarcerated. Three primary studies were compared, using Cooper's Integrative Research Review. The Kaiser original ACE (Adverse Childhood Experience) study, a replica study completed by Finkelhor and Associates, and The Philadelphia Expanded Study were included in this paper. I relied on other research articles to back up my findings that included a connection between ACEs and recidivism. Recommendations were also made for further research.

Acknowledgment

I would like to thank my professor, chair, and defense committee, who generously supplied their knowledge and expertise. I am indebted to my family for their support and patience throughout my academic journey. A special thanks to Karla, who has been my mentor and support person. It was Karla who kept me going and gave me the extra push I needed to complete this thesis. Finally, I would also like to my dog, Marco, for sitting next to me through this process and for all the entertainment and emotional support.

Table of Contents

Chapter   Page

List of Tables

Chapter 1: Introduction

A Public Health Crisis

Adverse Childhood Experiences (ACEs) suggest exposure to one or more of ten childhood traumatic experiences up until the age of 18, will contribute to lifelong complex problems for a child into adulthood. ACEs have a strong connection between both physical and mental health and research suggests leaving this trauma untreated, leads to lifelong toxic stress chemicals in the brain and organs. More recently, research has found that the likelihood of prison inmates being exposed to adverse childhood experiences could mean long-term criminal justice contact for the individual. The effects of ACEs are a public health crisis. By fostering resilience and treating trauma amongst inmates, we will examine the benefits and how it has been shown to lower the rates of high incarceration and recidivism rates.

Research Statement

In this descriptive study, I examined the available research literature on Adverse Childhood Experiences (ACEs) in the United States today. I then reviewed rehabilitative trauma treatment during incarceration to identify potential relationships with lower recidivism rates. This was accomplished by constructing a qualitative research design that incorporated an Integrative Research Review method and a nonrandom, purposive sampling technique (n=35 primary sources,1 and 3 research studies). This problem statement was addressed by answering the following research questions.

1)   Does treating the trauma of inmates with high ACE scores lower recidivism scores?

2)   Does a higher ACE score affect at-risk behavior in youth? OR?

3)   Do we see a trend with higher ACE scores with a more diverse group of people?

Key Concepts & Terminology

Childhood Experiences

Adverse Childhood Experiences or ACEs have been defined as stressful or traumatic events during the first 18 years of a child's life and in the confines of the child's home environment (Krinner et al., 2021). There are 10 questions on the ACE assessment. Five are personal, which include physical abuse, verbal abuse, sexual abuse, physical neglect, and emotional neglect. The other five are related to other family members in the home, that includes a parent who is an alcoholic, a mother who is a victim of domestic violence, a family member in jail, a family member diagnosed with a mental illness, and a child experiencing the divorce of parents.

The 10 adverse childhood experiences that are included on the ACE scale are:

1.   Did a parent or other adult in the household often or very often swear at you, insult you, put you down, humiliate you? or Act in a way that made you afraid that you might be physically hurt?

2.   Did a parent or other adult in the household often or very often push, grab, slap, or throw something at you? Or ever hit you so hard that you had marks or were injured?

3.   Did an adult or person at least 5 years older than you ever, touch or fondle you, or have you sexually touched their body? or attempt or have oral, anal, or vaginal intercourse with you?

4.   Did you often feel that no one in your family loved you or thought you were important or special? or your family did not look out for each other, feel close to each other, or support each other?

5.   Did you often or very often feel that you did not have enough to eat, had to wear dirty clothes, and had no one to protect you? Or were your parents too drunk or high to take care of you or take you to the doctor if you needed it?

6.   Were your parents ever separated or divorced?

7.   Was your mother or stepmother often pushed, grabbed, slapped, or had something thrown at her? Or often kicked, bitten, hit with a fist, or hit with something hard? Or ever repeatedly hit over at least a few minutes or over at least a few minutes or threatened with a gun or knife?

8.   Did you live with anyone who was a problem drinker or alcoholic, or who used street drugs?

9.   Was a household member depressed or mentally ill, or did a household member attempt suicide?

10.   Did a household member go to jail or prison? (Heirigs et al., 2020).

If left untreated, the 10 questions developed for the ACE questionnaire can hinder an individual's life and will yield persistent psychological, physiological, and physical health issues throughout their lifetime. Some examples include a much higher risk for addictions, a mental health diagnosis, and psychological distress that creates behavior changes that can, in turn, lead to physical health deterioration, and involvement in the criminal justice system (Finkelhor et al., 2013). Research suggests that exposure to untreated trauma leads to what is called toxic stress, increasing vulnerability in childhood, where ACEs could have been prevented.

Toxic Stress

Toxic stress is a result of prolonged traumatic exposure a child is subjected to in the household and can come in several forms, but more prominently it is a result of abuse and parental neglect. Many researchers believe toxic stress changes brain chemistry and organ

systems. Toxic stress activates the stress response by releasing hormones; people dealing with toxic stress respond differently than those who are dealing with stress in a positive and tolerable way (Bucci et al., 2016). Exposure to toxic stress can also increase the risk of chronic health problems in adulthood (Bucci et al., 2016). Some of these chronic health conditions include both physical health deterioration and mental health illnesses. Mental and behavioral health conditions may include alcoholism, anxiety, depression, post-traumatic stress disorder, smoking, substance abuse, and a higher risk for suicide. Physical illnesses include cancer, diabetes, obesity, strokes, chronic lung disease, and general poor health (Bucci et al., 2016). The result of toxic stress can lead to what research states, is an early death.

What is Trauma?

Payne et al. define trauma as an occurrence that can cause a long-term imbalance in the autonomic and core nervous systems (Payne et al., 2015). A traumatic event, which describes the effect on the nervous system and not the event, can trigger a sympathetic and parasympathetic reaction and can lead to a chronic response by these two body systems (Wong, 2021). There are four trauma responses, fight, flight, freeze, and fawn. A nervous system dysregulation can create what we call a fight or flight response or a hyperarousal state. The opposite effect of this is the hyperarousal state which causes one's body to enter a "freeze" state, which is a nervous system shutdown (Wong, 2021). The freeze state can cause dissociation and/or isolation for a person exposed to trauma. The fawn response is the 'people-pleasing' stage. The fawn stage can be beneficial if done healthily, but many who suffer trauma have little to no boundaries.

At this stage, people exposed to trauma surpass a healthy boundary to please others, which becomes an unhealthy response and leads to codependent relationships. The continuation of this chronic response can eventually lead to Post Traumatic Stress Disorder (PTSD). In

addition, Albert Wong Ph.D., suggests trauma can change how a person views and experiences the world around them.

The table below shows the relationship between the sympathetic and parasympathetic responses.

Table 1

Chronic Stress Response
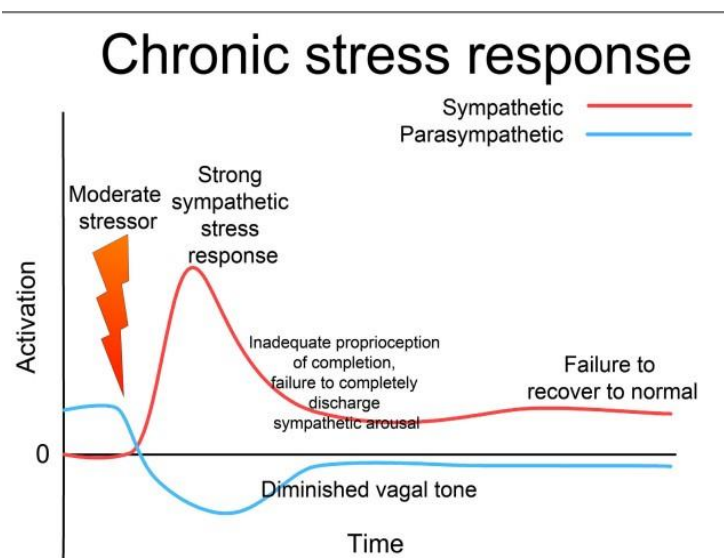
Note. From "Somatic Experiencing: Using Interception and Proprioception as core elements of trauma therapy," by Payne, P., Levine, P. A., & Crane-Godreau, M. A. 2015. Frontiers in Psychology, 6. https://doi.org/10.3389/fpsyg.2015.00093 Copyright 2015 Payne, Levine and Crane-Godreau.

The inability to move through trauma can create a dangerous and negative effect on a person's psyche and inability to have quality relationships with others and themselves. Subsequently, this can make healing from trauma complicated.

Chapter 2: ACEs Frameworks

Abuse

The CDC (Centers for Disease Control) defines emotional abuse as being put down, sworn at, or insulted ("Preventing Child Abuse & Neglect," 2021). Physical abuse is defined as the intentional force of physical harm that causes injuries such as slapping, kicking, shaking, or burning ("Preventing Child Abuse & Neglect," 2021), sexual abuse is defined as any adult who touched the participant's body in a sexual way ("Preventing Child Abuse & Neglect," 2021) in the original Kaiser study, twenty-eight-point three percent of study participants reported some form of physical abuse as a child, from an adult in their home, and ten point three percent reported emotional abuse. Sexual abuse came in at twenty-point-seven percent and was the highest among women participants ("About the CDC-kaiser ACE study", 2021). Sexual abuse has also been prevalent in a higher ACE score for female inmates.

Neglect

Physical and emotional neglect are two forms of neglect that are categorized together since they reflect either form of neglect a child can experience. Physical neglect is defined as not having someone to care for your physical needs such as washing your clothes, visiting the doctor, or having enough food to eat. Emotional neglect refers to not having any source of strength or support, and not feeling important or special within the family (About the CDC-kaiser ACE study, 2021). In the Kaiser study, fourteen-point eight percent of the study participants experienced emotional neglect, and nine-point nine percent experienced physical neglect, with men scoring higher on the emotional neglect scale (About the CDC-kaiser ACE study, 2021).

Household Challenges

There are five household challenges a child can face regarding ACEs with these challenges being seen by the child within the home. These five challenges are; a mental illness of a household member, substance abuse by a household member, divorce or separation of a parent, domestic violence in the household, and incarceration of a household member ("About the CDC-kaiser ACE study," 2021). Household challenges are a big challenge many families face, they have shared challenges, with many experiencing one or more of these five challenges without even realizing it. Whether it be domestic violence or the divorce of a family member, these can add to higher ACE scores with what trauma a child already may be dealing with.

Chapter 3: The Studies

The Kaiser Study

In 1995, the original Kaiser ACE study began with researchers Vincent Felitti, and Robert Anda, who began by surveying 17,337 participants over a two-year period that had two waves of data collection. Making up the participants were 9,367 women and 7.970 men and were between the ages of 19 to over 60 years old ("About the CDC-kaiser ACE study", 2021). The respondents in this study were primarily white, educated, and middle-class subjects. The Kaiser study found the association between activities such as smoking, drug abuse, alcohol, overeating, or sexual behaviors to be the factor for coping mechanisms of untreated trauma (Felitti et al., 1998). In this original study, patients were originally undergoing obesity treatment, and it was through this treatment that the researchers realized it was a health issue that derived from a result of negative childhood experiences (Felitti et al., 1998). It is important to understand the scope of Felitti and Anda's study, so we can begin to understand the relationship between the negative effects many people will suffer later in life because of a negative childhood experience. To not only recognize the behaviors that go along with a high ACE score, but to begin to discern how to treat trauma as well as incorporate preventive measures, to lower the rates of incarceration. This study set the foundation for other studies to follow, with comparable results, all with one goal in mind, to create solutions and respond to ACEs.

The method from the Kaiser study was done using an estimated sample size population of n=17,337, and for their analysis, they used the Statistical Analysis System (SAS), which is a software tool used for measuring data. This study was approved by the Institutional Review Boards of Southern California Medical Group (Felitti et al., 1998). The Kaiser study was conducted using a survey mailed to respondents already in the patient health system for an earlier

clinic visits. The questions were developed around psychological and physical abuse during childhood and were constructed from previously published surveys. In addition, there were also questions developed to include alcohol, drug abuse, and sexual abuse (Fellitti 2019). The researchers used seven categories of exposure that included household dysfunction and abuse. The first wave of this study was completed with a seventy-one percent response rate of n=9,508 with the second wave being completed with n=15,000, when completed this study had a cohort of n=19,000, with a follow-up, and all the participants had a shared characteristic. Some of these shared characteristics include hospital visits, discharge, and pharmacy utilization (Felitti et al., 2019).

In the analysis they conducted, the researchers used the analysis from 7 categories of childhood exposure, then compared it with risk factors they found were the leading cause of mortality. The risk factors include obesity, smoking, depression, chemical dependency, suicide attempts, and a high number of sexual partners (Felitti et al., 2019). Some exclusions from the analysis were 51 respondents whose race was not reported and other respondents who did not complete the whole questionnaire. The five abuse categories measured included emotional abuse at ten-point six percent, physical abuse at twenty-eight-point three percent, sexual abuse at twenty point seven percent, physical neglect at fourteen point eight percent, and emotional neglect at nine point nine percent (Felitti et al., 2019). p. 248).

The most prominent limitation of the Kaiser study is the limitations on race and social class. Factors such as ethnicity and systemic forms of discontent were not recognized as ACE. The participants in this study were predominantly white, middle class and educated subjects. This leaves a large gap in the study, especially for people living in poverty, those that have not been to college, and a lot more room for diversity within the participant pool. Another

limitation of the Kaiser study was the questions cannot sufficiently measure gender differences, frequency intensity, or persistence of symptoms. This data is important to allow us to see patterns in the ACE score and not just base an assumption surrounding them.

Replica Study

The replica study examined in this paper was done in 2008 by David Finkelhor, Ph.D., and associates. This study was conducted using a representative sample of children and adolescents. Seventy percent of the subjects were African American, and Hispanic and came from low-income households. The study was conducted between January and May 2008, and the questions were replicated from the original ACE study with revised questions not originally in the original Kaiser study. The answers to each question were scored in a one-point process, from zero to ten. This study aimed to look at the bigger picture of adverse childhood effects and how they compare with lifetime hurdles and current difficulties the youth may be suffering from. The following new questions were added to this study: peer victimization, parents always arguing, property victimization, someone close to the child having an illness or bad accident, exposure to community violence, lack of good friendships, below average grades, death of someone close to the child as a result of an illness or accident, loss of a job for the parent, parent deployed to fight in a war, exposure to a natural disaster, child removed from the home, the child being overweight, a child having a physical disability, the child was involved in a bad accident, chronic neighborhood violence a problem (asked in parent interview), homelessness, repeated a grade, and lastly if the child ever felt less feminine or masculine than other children their age (asked in the parent interview) (Finkelhor et al., 2013).

Researchers used the quantitative method design to conduct this study, based on the National Survey of Children's Exposure to Violence (NatSCEV), which included a sample of US

children (Finkelhor et al., 2013). The researchers then chose a random nationwide sample design that consisted of 2,030 youth aged 10-17 through a 45-minute phone interview (Finkelhor et al., 2013). The subjects were originally chosen by random digit dialing from residential telephone numbers. If the child was under 10 years of age, the survey was conducted with the parent or guardian, and if the child was over 10 years old, it was conducted with the child, and the respondents were paid $20 for their participation (Finkelhor et al., 2013). The random sampling phone interviews were completed at a seventy-one percent cooperation and fifty-four percent response rate (Finkelhor et al., 2013).

The results of the Finkelhor study compared two models for youth. Model 1 was based on the original ACE study questions and Model 2, used the added measure questions not originally collected in the original ACE study. The researchers included diversities not originally studied in earlier research, which included community violence, interpersonal violence, and property crimes which supported results from other studies (Finkelhor et al., 2013). The Model 2 results were as follows, sixty-three-point four percent of respondents reported exposure to community violence, peer victimization forty-seven point six percent, and property crimes came in at a rate of forty-one point six percent (Finkelhor et al., 2013, p. 72). The five abuse measurements reported by the participants were emotional abuse at five-point sixty-five percent, physical abuse at six point seventy-two percent, sexual abuse at fifteen point twenty-six percent, physical neglect at five point nine percent, and emotional neglect at thirteen point one percent (Finkelhor et al., 2013, p. 72).

There were limitations with this study that need to be pointed out. First, unlike the original study, the variables in this study were self-reported by children which may have inaccuracies (Finkelhor et al., 2013). In addition, when we compare the original ACE study to

the replica study, we see two different generation variables, with older adults being respondents in the first study, we would begin to see differences in how trauma is viewed and understood altogether. Regarding the recurrence, standards, and effect of various encounters of risk assessment, an older generation will answer questions much differently than a younger generation. An example of this would be divorce and sexual abuse. Divorce may have had more of an effect on an adult experiencing it and reported it later in life, than the child, and sexual abuse with an older generation may have been rarely discussed than it is now with a younger generation (Finkelhor et al., 2013). With that said, in many instances of these studies, cultural differences and beliefs need to be considered. This ACE study opened the door to an understanding that ACEs are at the root of all problems of physical, mental, economic, and social health in humans, no matter where we may live. The results may have also looked different with a more diverse population. Lastly, it did not include other items that could be measured, such as a death of a parent, not having enough food, and a low IQ (Finkelhor et al., 2013), which would all contribute to childhood adversities.

<p style="text-align:center">The Philadelphia ACE Project</p>

The Philadelphia ACE Project is a team of researchers that consists of professionals from pediatrics, behavioral health, epidemiology, and adolescent medicine ("ACE research committee," n.d.). This study, the first of its kind, was completed to expand the ACE study for the Public Health Management Corporation in 2013. This study is especially important since it focused on diverse urban areas and community-level adversities, and whether they had inconsistent stressors not found in the original ACE study ("ACE research committee," n.d.). There were 1,784 adult participants who had lived most of their life in poverty, who were surveyed using the original ACE questions, plus five added questions related to community-level

stressors ("ACE research committee," n.d.). The added questions included living in foster care, witnessing violence, experiencing racism, and bullying, and feeling unsafe in their neighborhood ("ACE research committee," n.d.).

The Philadelphia Project contacted participants aged 18 and older by telephone between November 2012 and January 2013 ("Findings from Philadelphia ACE survey and compared ACE questions," 2013) The participants of this study were chosen as a follow-up done previously who were already in the system for a Community Health Data Base survey. Being the participants were already in the system, it made it easier to contact them and the system already had pertinent health information about each participant. The average length of the interview was 12 minutes ("Findings from Philadelphia ACE survey and compared ACE questions," 2013), and was reimbursed for their time. For added response cooperation rates, male researchers were assigned to male callers, and female researchers were assigned to female callers ("Findings from Philadelphia ACE survey and compared ACE questions," 2013). The ACE survey included participant race, education, gender, and age.

Along with the original ACE questions, the added questions measured included living in foster care, witnessing violence, experiencing racism, bullying, and feeling unsafe in their neighborhood ("ACE research committee," n.d.). The rates of emotional and physical abuse were higher in the Philadelphia Project compared to the original ACE study, but sexual abuse rates were lower for the Philadelphia participants. The Philadelphia study shows an increase in stressors in urban environments for black males living in poverty. The table below shows the comparison of the five abuse indicators with the Kaiser Study and the Philadelphia ACE Study.

Table 2

Abuse and Neglect Indicators Among Philadelphia ACE Study vs. Kaiser Study

	Philadelphia ACE Survey (N=1,784)	Kaiser ACE Study (N=17,337)[3]
Emotional abuse[4]	33.2% (n=1,190)	10.6% (n=1,838)
Physical abuse[5]	35.0% (n=624)	28.3% (n=4,906)
Sexual abuse	16.2% (n=289)	20.7% (n=3,589)
Physical neglect[6]	19.1% (n=340)	14.8% (n=2,566)
Emotional neglect[7]	7.7% (n=136)	9.9% (n=1,716)

Note. From "Philadelphia ACE survey and compared ACE questions." by The Research and Evaluation Group, 2013. www.simplebooklet.com. (https://simplebooklet.com/findingsfromphiladelphiaacesurveyandcomparedacequestions#page= 13). Copyright 2013 by The Research Evaluation Group. Reprinted with permission.

Of the participants in the Philadelphia ACE Project, almost forty percent of those surveyed had experienced four or more community-level ACEs ("Findings from Philadelphia ACE survey and compared ACE questions," 2013). Males answering the expanded five community-level ACE questions all scored higher than females. The race indicators were higher in blacks than white for witnessing violence, feeling discrimination, living in foster care, and having negative neighborhood experiences, while whites scored higher for being bullied.

There were several limitations pointed out in this study. First, the sample size was small, so it limited the outcomes, especially in public health measures ("Findings from Philadelphia ACE survey and compared ACE questions," 2013). Second, the sexual abuse rates were lower than in the Kaiser study, which could be due to participants being reluctant to share answers over

the phone rather than on a written survey. Third, there were limitations about physical neglect on the survey that could be measured, due to time and space. Lastly, many questions were worded differently than in the original Kaiser study. Emotional neglect questions were obscure and the physical neglect questions in the Philadelphia study were more prominent than in the Kaiser study ("Findings from Philadelphia ACE survey and compared ACE questions," 2013).

Study Analysis

The table below is the statistical analysis for these three studies.

Table 3

Chi-square for Abuse & Neglect Indicators among Philadelphia Urban

ACE Survey, Replica Study, and the Kaiser ACE Study

ACE Measures	Kaiser ACE Study N=13,337	Replica Study N=2,030	Philadelphia Project N=1,784	Row Totals
Emotional abuse	1,838 (2716.10) [283.89]	359 (191.60) [146.24]	1,190 (479.29) [1053.87]	**3387**
Physical abuse	4,906 (4676.80) [1123]	302 (329.92) [2.36]	624 (825.28) [49.09]	**5832**
Sexual abuse	3.589 (3216.50) [43.14]	133 (226.90) [38.86]	289 (567.59) [136.74]	**4011**
Physical neglect	2,566 (2395.34) [12.16]	81 (168.98) [45.80]	340 (422.69) [16.18]	**2987**
Emotional neglect	1,716 (1610.26) [6.94]	156 (113.59) [15.83]	136 (284.15) [77.24]	**2008**
Column Totals	14615	1031	2579	**18225 Grand Total**

A chi-square test of independence was performed to examine the relation between ACE study participants and the relationship between the different forms of abuse. The p-value of 0 was less than 0.05. Therefore, Abuse and Neglect indicators can be strongly associated with the Philadelphia project total, Replica Study total, and Kaiser ACE Study total, showing a trend with the five types of abuse.

X-squared = 1939.6, df = 8, p-value < 2.2e-16.

Chapter 4: Addressing ACEs

There are approximately 2.12 million inmates in U.S. prisons today ("The Whole Pie", 2019). Juveniles make up approximately 130,000 of the incarcerated in the United States every year (Aizer & Doyle, 2015). Native American youth are also confined at a much higher rate than any other race (Wang, 2021). However, it is difficult to gather consistent data of Native youth being incarcerated in jurisdictions where data is not collected. Little evidence has been shown for Native Americans living on a reservation and incarceration rates and ACE studies. More research is needed in this area.

A study in Manitoba Canada was conducted between July and October of 2018 to test the relationship between ACEs and substance abuse in adolescents called the Well-Being and Experiences (WE) Study (Afifi et al., 2020). The study consisted of (n = 1002) aged 14–17 years of age and was completed using a random sampling method. Through this study, the researchers found that ACEs were linked to increased substance use by an alarming seventy-five-point one percent of study participants with eighteen-point six percent disclosing binge drinking in the past 30 days (Afifi et al., 2020). Not only was there an increase in alcohol use among the participants but the findings also showed a prevalence of cannabis use, electronic vapor use, and increased cigarette smoking (Afifi et al., 2020).

Life-course theory suggests that circumstances and events that happen in a person's life can alter their life trajectory over time (Glantz et al., 2017). Combining life-course theory with ACEs and toxic stress can create risk factors for criminal career behavior. The foremost predictors of what is keyed life-course-persistent or (LCP), offenders with poor parental supervision, harsh discipline or a parent in the criminal justice system, and parental conflict (Farrington, 2020), were at a higher risk for criminal behavior in adulthood. A study based on the

Cambridge Study in Delinquent Development (CSDD), researchers conducted a longitudinal survey of males aged 8-61. They found that 6% of males, with at least five arrests, accounted for fifty-two percent of all participants in the study, with many of them beginning a life of crime by the time they were age 16. These percentages are based on psychosocial risk factors that include the conviction of a parent, uninvolved fathers, socio-economic status, low verbal IQ, impulsiveness, and behavior (Farrington, 2020).

Inmate Demographics

There is a progressive rate of higher ACE scores in inmates compared to the general population. Currently, males make up for most of the inmate population under supervision at eighty-seven percent with forty- five percent of them being White, leaving the Black population coming in at thirty-eight percent (Heirigs et al., 2020). However, black males are incarcerated at a rate five times higher than whites. The Native American inmate population is on the rise with over 10,000 incarcerated in the United States, which makes up two-point-one percent of the total population incarcerated. Native Americans living on a reservation, sit longer sentences than non-Native for the same crimes committed since reservations fall under federal jurisdiction (Klasky, 2013). Data for Native Americans incarcerated is also difficult to gather since they are often collected as "other" groups of people (Wang, 2021). The below table depicts how the Native American inmate population is counted.

Table 4

The number of Native people in jails depends on how you count them
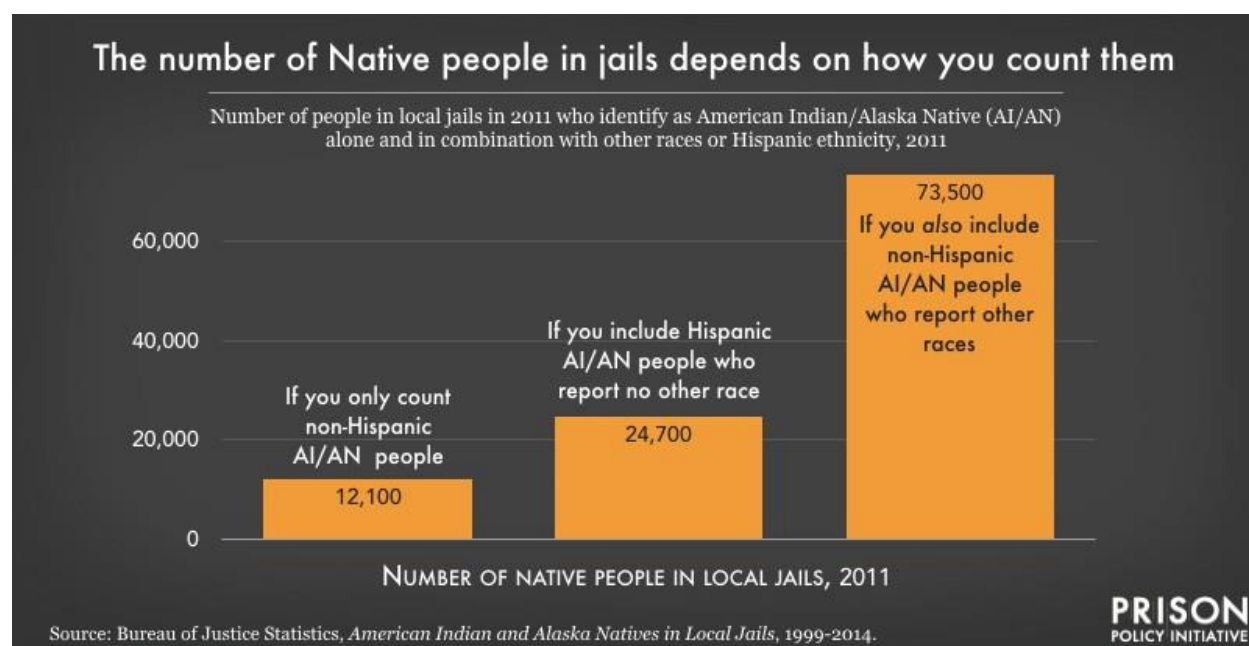
Note. From "The U.S. criminal justice system disproportionately hurts Native people: the data, visualized" by Leah Wang 2021 (https://www.prisonpolicy.org/blog/2021/10/08/indigenouspeoplesday/) Copyright 2021 by Prison Policy Initiative. Reprinted with permission.

The number of jails has also increased in Indian country since 2018, going from 68 to 2000 (Fox et al., 2023). The amount of time an inmate sat in these jails has also doubled from 2002 to 2018 Alcohol and drug abuse has also been a trend with most inmates in Indian country contributing to most of the crimes committed (Fox et al., 2023). These numbers could give tribes an advantage in addressing these higher numbers of tribal members incarcerated, by including culturally appropriate approaches that include programming for inmates, which will be discussed later in this paper.

Female prisoners make up for increased incarceration rates. Seventy-five percent of women serving a prison sentence report having experienced some form of childhood trauma (Tripodi et al., 2019). This increase may be due to women being child-bearers and the detrimental effects of having their children removed from their homes as an effect of the trauma (Lehrer, 2021). The most common form of abuse documented for female prisoners is childhood sexual abuse. This leads researchers to believe an increase in gender-specific support within prisons is needed for women to center around any sexual abuse. This would in turn make programming more effective.

Social Learning Theory tells us how male inmates view their place in this world (Glantz et al., 2017). Social learning also tells us that behaviors are learned, and this is especially true with domestic violence cases. If the inmate grew up witnessing violence in their homes, it is more likely they will be the perpetrator in a domestic violence situation. When behaviors are seen as learned, it is an arduous process to resolve since it was a behavior learned from childhood. Males have also had to deal with harmful stereotypes, which makes it harder for them to display and recognize their childhood trauma. Toxic masculinity falls into play and can also be a barrier to recognizing traumas for men and is defined as a need for dominance and to aggressively compete with others (Kupers, 2005). This also includes being homophobic, devaluing women, and overall dominant gender issues. Incarceration and toxic masculinity can go hand in hand inside prison walls and can add to negative outcomes for an inmate and leads to barriers to mental health treatment (Kupers, 2005).

Creating Resiliency

Protective Factors

Looking at the benefits of treating trauma, we see how it can benefit inmates by learning coping mechanisms and tools to live successful lives outside of prison, and that can lower incarceration rates. These benefits are not possible without parole treatment programming. Many inmates have been falling through the cracks of the criminal justice system. Meaning, many do not get to the root of the problem while they are serving time, and upon release, fall back into the same lifestyle and habits as before they entered the criminal justice system. In Indian country, these drastic gaps in outcomes were caused by a direct result of colonization over the last 500-plus years and assimilation. There are systemic issues that give rise to these current health disparities. Forced relocation with the original peoples, boarding schools, culturally inappropriate interventions, historical trauma, institutional practices, structural racism, discrimination, social inequality, and other federal and public policies that were created also had an impact on creating the conditions for these health disparities to exist. The absence of these cultural traditions has had the greatest impact on youth with higher suicide rates and other factors resulting in shorter life expectancies (Shantz, 2010). Culture can play a key role as a prevention and protective factor for inmates. Reviving culture and creating spiritual connections can give an inmate what they may have been missing for most of their lives.

There are Seven Grandfather Teachings derived from the Ojibwe and Potawatomi peoples, and those teachings are wisdom, love, courage, respect, truth, honesty, and humility. When these seven teachings are illustrated and centered around a person's life, it is said they are living in harmony, and it also brings a level of responsibility within that person. When these seven teachings are incorporated into families, schools, and communities, it can be beneficial to

developing resiliency. Along with The Seven Grandfather Teachings, it is also important to keep Indigenous language and other cultural practices alive. Youth programs that involve preserving culture in schools such as one in Canada, called The Midwinter Mural Project incorporate learning their traditional language and seasonal cultural traditions, which include harvesting, fishing, and cleaning skills (Shantz, 2010). The Native Youth Council, also in Canada keeps traditions and culture alive by offering positive activities for youth that include drumming and singing traditional songs. Naming ceremonies and sweat lodges can give the largest sense of self and place in this world and offer healing in a person's life.

A holistic approach within the justice system could reap huge benefits for tribal justice programming. This approach was developed in New York in 1997 and includes client-centered interdisciplinary approaches (Fox et al., 2023). Restorative in structure, this approach includes filling gaps in treatment protocols for inmates. There are four main goals included in this approach which include; social support needs, excellent and meaningful communication with the client, strong advocacy skills from the professional, and understanding and good connection to the community the professional is serving (Fox et al., 2023). A holistic approach's backbone is understanding what brings a person into the criminal justice system, to begin with. The holistic approach was never created to serve Indigenous communities, but research is showing the benefits that could come from the results of culturally specific programming surrounding a comprehensive approach since Indigenous communities have unique criminogenic needs (Fox et al., 2023).

While discussing trauma treatment components, protective factors also must be considered. There are four categories of protective factors with the first factor beginning within the home. These include quality housing, quality parental supervision, good family income, and

interest and support in the education of youth. Second, there are protective factors within the education system for the youth, which include having a positive learning environment and being committed to the student. Lastly, the community has a responsibility to offer a strong social support system for youth, and peer-level support is important without friends exhibiting antisocial behaviors (Craig et al., 2017). When we see a lack of protective factors for youth, this adds to their vulnerability factor to suffering from one or more ACEs. In turn, with more vulnerability, they are more likely to have their first contact with the criminal justice system. It is the duty of families, and the communities they live in, to provide a positive, supportive environment for youth who have been exposed to trauma and in the prevention of trauma. Much of an inmate's trauma stems from childhood experiences that go much further than what is on the surface and into unresolved experiences that they may be in denial about, which is an area that they have never even wanted to admit. This can be challenging to treat in a correctional setting. It is crucial, especially for male inmates to be given a chance to feel enough trust with professionals to begin to acknowledge their trauma, this also plays a crucial role in the expectation and views of society (Glantz et al., 2017).

Trauma-Informed Care

Interventions for ACEs in a correctional setting should include Trauma-Informed Care (TIC), by trained professionals that can identify trauma. While in a correctional setting, the correct term used is trauma-informed correctional care (TICC), which is an innovative approach that has been popping up in many facilities with many benefits. The main goal of this approach is to "do no harm," and minimize re-traumatization (Miller & Najavits, 2012). By using this approach, professionals should begin to ask, "What happened to you?" rather than "What is wrong with you?" There are six features associated with TIC and including trust, safety

empowerment, collaboration, and historical and cultural factors (Lehrer, 2021). These six factors are centered around the goals of supporting ownership, forgiveness, and mindfulness which leads to them taking control of their lives (Lehrer, 2021). Caregivers knowing how to deliver TIC is important as well, which would begin with trust-building and relationship rapport, which is extremely important for the person receiving services. According to a study that included 237 women involved in the criminal justice system, who received TIC, had a ninety-one percent success rate (Lehrer, 2021), meaning they did not re-offend.

Beyond Violence

Another treatment program specifically for female offenders to try to prevent incarceration is a trauma treatment program called Beyond Violence. Beyond Violence is a trauma-informed and gender-responsive intervention for women facing a violent offense (King, 2015). The goal of this programming is centered around five specific topics and includes the influence of family and society on the woman's life, connections of feelings, thoughts, and behaviors, roles of violence and anger, definitions of violence and abuse, and the woman's mental health as it links to substance abuse (King, 2015). Beyond Violence is a 20-week program that teaches and encourages improved communication, decision-making, and conflict resolution (King, 2015). The study that was performed on this programming showed that 29 of the 35 women who completed this study had a decrease in mental health symptom measures (King, 2015).

Mental Health Programming

Studies show twenty percent of inmates show a need for mental health treatment, yet almost half of them will not receive it (Severson et al., 2020, p. 1756), and thirty percent of inmates showed their mental health needs were unmet even after their sentence was served

(Lehrer, 2021 p. 122). There are several reasons for the inability to receive proper mental health programming and include a lack of mental health providers, especially in rural areas, and long waiting lists. Other barriers include limited budgets, poor tracking practices, and screening of inmates, lack of confidentiality, medication distribution, and understaffing of mental health professionals in prisons (Severson et al., 2020). There are also differences between men and women who are more likely to seek treatment, with women being more likely to seek treatment. The barrier to women seeking out treatment is the inability of prisons to offer specialized treatments for women, especially for those who have been sexually abused or who suffer from substance abuse issues (Severson et al., 2020).

Treating prisoners' mental health while behind bars is crucial. The trauma an inmate faces while still incarcerated is equally important and must be considered since this also adds to their health disparities. The isolation and fears they contend with can negatively affect their mental health well-being since an inmate with 4 or more ACEs is four times higher risk of having a mental illness diagnosis (Ford et al., 2020). The most common forms of mental health diagnoses for an inmate are an increase in depression, personality disorders, and psychological distress which can all lead to a higher suicidality rate (Ford et al., 2020). We cannot forget to mention the substance abuse problems among incarcerated individuals, which also display at an increasingly high rate.

Dr. Gabor Mate' an expert on trauma has explored in depth, the connection between trauma, stress, and addictions. Dr. Mate' found through his research that childhood adversity was the main pretense for culminating addictions (Maté, 2012). Mate' also looked specifically at the nurture vs nature approach and found parental bonding played a large part in whether interpersonal relationships normally bonded vs abnormally for a child (Maté, 2012). By

including stress, he further says the stress factor increases the susceptibility to addiction issues (Maté, 2012). With Dr. Gabor Mate's research, it is safe to say we can see the importance of protective factors in a child's life; starting from birth is imperative.

In Dr. Peter Levine's book, Waking the Tiger, he discusses the effects of trauma on the body and the healing of that trauma. He goes on to say that recognizing trauma can be difficult, but once recognized, he believes all humans can also heal from it (Levine 1997). Recognizing trauma is one of the most important tasks when we look at ACEs and re-offending. Without recognition and treatment, offenders are more prone to what is called trauma re-enactment. Dr. Levine states when humans are exposed to trauma, our bodies will automatically remain aroused to relive pieces of the trauma (Levine, 1997). By recognizing and treating trauma through families or at the community level, we can see the benefits of trauma transformation.

Reentry Programs

Reentry programs play a large part in lowering rates of recidivism. Many varied factors contribute to recidivism when an inmate is released from prison. Not having adequate support, housing, and a continuum of care upon release only adds to the problem of higher recidivism numbers. There are several benefits to having reentry programs for inmates. First, it is crucial to incorporate a plan upon release, whether it be for housing needs, mental health advocacy, medication management, family support, and proper chemical dependency treatment. Several organizations are making strides to aid in lowering recidivism rates in communities throughout the United States. Native Scents is supporting efforts for inmates that are currently incarcerated that bring cultural prison circles inside the prison in New Mexico. Offering prisoners ritual herbs and other ceremonial tools, allows the prisoners to practice ceremonial practices thus allowing for healing and the crucial support they need ("Native American Prisoner Program," n.d.)

Ben & Jerry's Ice Cream has also been investing in criminal justice reform in communities. Since 2018, Ben & Jerry's has supported the New Poor People's Campaign, which carries out the work of Dr. Martin Luther King. The highlight of this project was to pass an amendment to restore the voting rights of inmates convicted of a felony passed in the same year. They have been involved in several other areas at local and state levels to make changes in criminal justice reform to help lower recidivism and crime rates altogether in several states ("Why Ben & Jerry's Cares About Front End Criminal Justice Reform (And You Should, Too)", 2019). Having a solid support foundation in communities for inmates can help improve the quality of life.

Compassion Prison Project

In 2019, Fritzi Horstman began a 501(c)(3) non-profit organization she calls the Compassion Prison Project. It is under this non-project she and her team of ambassadors began visiting prison inmates at Kern Valley State Prison. The Kern Valley State Prison is a level IV maximum-security prison that houses 5,120 male inmates and the prison is the home of California's death row. It was here, Fritzi and others worked for the same compassionate goal creating an informed-trauma approach within the walls of this prison. It was when Fritzi began her work inside the jail that she saw ACEs (Adverse Childhood Experiences) are disproportionately high among inmates (Compassion Prison Project, 2021). The Compassion Prison Project's trauma-informed curriculum is a six-part series that focuses on inmates becoming aware of their childhood trauma. This six-part series of workbooks are currently being distributed throughout prisons in the US and other countries. By not only understanding but accepting their trauma, inmates can begin their healing (Compassion Prison Project, 2021). The

Compassion Prison Project is making great strides in continuing its efforts today, to work with prisoners inside the California penal system.

Positive Childhood Experiences (PCEs)

Positive Childhood Experiences (PCEs) are the ability for a child to feel safe enough in the family environment to express thoughts and emotions and be supported. PCEs are crucial for a child and help to build trust and improve communication. Building and supporting nurturing positive relationships is PCEs goal. A lack of trust and communication creates an increased distrust between the child and the adult. Evidence shows increased adult functioning with more productivity and the ability to handle responsibility when PCEs are present. A study conducted by researchers Kosterman et al. (2011) found the rates of substance abuse were lower when PCEs were also present in the family of 8,500 sixth graders. The measures included in this study were civic involvement and responsibility, interpersonal connection, physical exercise, and overall productivity (Kosterman et al., 2011). PCEs have a proactive effect on parental involvement in a child's life. Having PCEs in the family had a profound effect on the four variables measured among the participants. Teaching conflict resolution and effective communication skills also play a large part in PCEs. Finally, the community also has a responsibility to children to engage and positively interact with them. PCEs present in the home for a child will be visible and help them become productive adults.

Chapter 5: Recommendations & Implications

Study Summary

Recidivism is defined as "Criminal acts that resulted in rearrest, reconviction or return to prison with or without a new sentence for three years following the person's release" (Lehrer, 2021, p. 122). In 1995, the Levels of Service Inventory (LSI-R) tool was created to look at reasons for recidivism and offer specialized programming options, based on the inmate's needs. Individuals are accessed based on ten factors, which include, criminal history, employment/ education, financial standing, marital/family, leisure/recreation, alcohol/drug issues, emotional/personal, orientation/attitudes, accommodations, and companions (Glantz et al., 2017). The (LSI-R) tool has also been shown to be consistent while measuring recidivism with race and ethnicity. This tool is widely used in the criminal justice system to find levels of risk in recidivism, while a higher score would show more risk of recidivism and will also find treatment needs (Glantz et al., 2017). While many argue this type of tool does not measure ACEs, it is important to note that it will give us a correct idea of what type of programming an inmate may receive help from. It would also make sense to assess an inmate's risk whilst they are still incarcerated. Providing programming inside prisons that support stability with mental health issues will give a clearer understanding of an inmate's underlying issue for behaviors they are showing. Targeted programming would include case management that would find any risks which would include any chemical dependency issues that could begin while they are incarcerated, A continuum of care could then be set up, which is the biggest priority for inmates in the criminal justice system.

Throughout this paper, I have shown through integrative research that ACEs can hold significant outcomes of incarceration. Based on the studies analyzed in this paper, we have seen

similar findings that point to high recidivism rates due to untreated childhood trauma. There was also a clear indication of trends between these three studies, showing higher ACE scores within the abuse categories. Based on the evidence from the original Kaiser study, the replica study, and the Philadelphia Expanded ACEs study, we took an in-depth look at three diverse groups of survey participants who also differed in age, using Cooper's Integrative Research. Integrative Research has the quality of collecting data to prospectively evolve into a larger evidence-based research project. This type of research allowed for a clearer understanding and obscurity when reviewing evidence and comparing studies and therefore increasing understanding of the evidence.

Incorporating Trauma-Informed Correctional Care (TICC), educational options, and other specific treatment programs, will improve the reintegration process and give inmates the tools and confidence of coping outside of the prison walls. A Wisconsin longitudinal survey conducted among 237 incarcerated women with high recidivism rates, showed only 11 had recidivated after going through a trauma-informed treatment program (Lehrer, 2021). For an inmate completing a trauma-informed treatment program could mean the difference between them re-entering prison and regaining control of their life. Prison inmates' well-being outside of prison could be a matter of life or death, and incorporating culturally specific holistic treatment could change the the life course of an inmate with specific criminogenic needs.

Proposed Answers & Actions

The studies conducted for this thesis have identified several areas that require further exploration and analysis. Since the studies included in this paper only explored a limited sample of youth with ACEs and incarceration, future research could be a continuum. This could contribute to a deeper understanding of higher rates of recidivism among youth. Data in this area

is limited and by including data from different parts of the world, it may be possible to further gather data. Another important recommendation is to gather more data in Indigenous communities. Including these jurisdictions may give more insight into the increasing numbers of those incarcerated. Since we know there is a lack of data regarding ACEs and incarceration rates coming out of Indian country, it is important to focus more on this research since the number of jails on reservations has also increased since 2018 (Fox et al., 2023).

Social & Policy Impact

Studies suggest that trauma rehabilitative programming for inmates lowers recidivism rates. All jails and prisons throughout the country must have proposed trauma treatment programming. It will be through this programming we will begin to see incarceration and recidivism rates decreasing throughout the country. Another social policy that would be beneficial is the use of Positive Childhood Experience programming in schools, particularly at the elementary level. This programming would involve the whole family building and supporting nurturing positive relationships between the parent and the child. This type of programming has been shown to have beneficial results on the child, lowering their risk for adversities entering adulthood.

References

ACE research committee. (n.d.). Philadelphia ACES.

   https://www.philadelphiaaces.org/projects/ace-research-committee

Afifi T.O., Taillieu, T., Salmon, S., Davila, I.G., Stewart-Tufescu, A., Fortier, J., Struck, S.,

   Asmundson, G.J.G., Sareen, J, MacMillan, H.L. (2020). Adverse childhood experiences

   (ACEs), peer victimization, and substance use among adolescents. *Child Abuse &*

   Neglect. doi: 10.1016/j.chiabu.2020.104504.

Aizer, A., & Doyle, J. J. (2015). Juvenile incarceration, human capital, and future crime:

   Evidence from randomly assigned judges *. *The Quarterly Journal of Economics, 130*(2),

   759-803. https://doi.org/10.1093/qje/qjv003

About the CDC-kaiser ACE study. (2021, May 21). U.S. Department of Health & Human

   Services https://www.cdc.gov/ violenceprevention/aces/about.html

Bucci, M., Marques, S. S., Oh, D., & Harris, N. B. (2016). Toxic stress in children and

   adolescents. *Advances in Pediatrics, 63(1),* 403-428. https://doi.org/

   10.1016/j.yapd.2016.04.002

Compassion Prison Project. (2021). https://compassionprisonproject.org/

Craig, J. M., Piquero, A. R., Farrington, D. P., & Ttofi, M. M. (2017). A little early risk goes a

   long bad way: Adverse childhood experiences and life-course offending in the

   Cambridge study. *Journal of Criminal Justice, 53,* 34-45. https://doi.org/

   10.1016/j.jcrimjus.2017.09.005

Farrington, D. P. (2020). Childhood risk factors for criminal career duration: Comparisons with

   prevalence, onset, frequency, and recidivism. *Criminal Behavior and Mental Health,*

   30(4), 159-171. https://doi.org/10.1002/cbm.2155

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (2019). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine, 14*(4), 245-258. https://doi.org/10.1016/s0749-3797(98)00017-8

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. *American Journal of Preventive Medicine, 14*(4), 245-258. https://doi.org/10.1016/s0749-3797(98)00017-8

Findings from Philadelphia ACE survey and compared ACE questions. (2013, September 18). simplebooklet.com. https://simplebooklet.com/ findingsfromphiladelphiaacesurveyandcomparedacequestions#page=8

Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2013). Improving the adverse childhood experiences study scale. *JAMA Pediatrics, 167*(1), 70. https://doi.org/10.1001/ jamapediatrics.2013.420

Ford, K., Bellis, M. A., Hughes, K., Barton, E. R., & Newbury, A. (2020). Adverse childhood experiences: A retrospective study to understand their associations with lifetime mental health diagnosis, self-harm or suicide attempt, and current low mental wellbeing in a male Welsh prison population. *Health & Justice, 8*(1). https://doi.org/10.1186/s40352-020-00115-5

Fox, D., Hansen, C., & Miller, A. (2023). *Over-Incarceration of Native Americans: Roots, Inequities, and Solutions.* Safety & Justice Challenge. https:// safetyandjusticechallenge.org/resources/over-incarceration-of-native-americans-roots-inequities-and-solutions/

Glantz, T., Harrison, J., & Cable, A. (2017). *Trauma & recidivism: Informing assessment and treatment options for incarcerated men, International Review of Modern Sociology, 43*(1), 95-118. https://www.jstor.org/ stable/44510056

Heirigs, M. H., Tatman, A. W., Richey, T., Loudon, A., & Bell, H. (2020). Predicting Recidivism Using Adverse Childhood Experiences & the Level of Service Inventory. *Justice Policy Journal, 17.* http://www.cjcj.org/jpj

King, E. A. (2015). Outcomes of trauma-informed interventions for incarcerated women. *International Journal of Offender Therapy and Comparative Criminology, 61*(6), 667-688. https://doi.org/10.1177/0306624x15603082

Klasky, P. M. (2013). *The power of the drum*. www.pbs,org/drcleofstories

Kosterman, R., Mason, W. A., Haggerty, K. P., Hawkins, J. D., Spoth, R., & Redmond, C. (2011). Positive childhood experiences and positive adult functioning: Prosocial continuity and the role of adolescent substance use. *Journal of Adolescent Health, 49*(2), 180-186. https:// doi.org/10.1016/j.jadohealth.2010.11.244

Kupers, T. A. (2005). Toxic masculinity as a barrier to mental health treatment in prison. *Journal of Clinical Psychology, 61*(6), 713-724. https://doi.org/10.1002/jclp.20105

Krinner, L. M., Warren-Findlow, J., Bowling, J., Issel, L. M., & Reeve, C. L. (2021). The dimensionality of adverse childhood experiences: A scoping review of ACE dimensions measurement. *Child Abuse & Neglect, 121*, 105270. https://doi.org/10.1016/ j.chiabu.2021.105270

Lehrer, D. (2021). Trauma-informed care: The importance of understanding the incarcerated women. *Journal of Correctional Health Care, 27*(2), 121-126. https://doi.org/10.1089/jchc.20.07.0060

Levine, P. A. (1997). *Waking the tiger: Healing trauma: The innate capacity to transform overwhelming experiences.* North Atlantic Books.

Maté, G. (2012). Addiction: Childhood trauma, stress and the biology of addiction. *Journal of Restorative Medicine, 1*(1), 56-63. https://doi.org/10.14200/jrm.2012.1.1005

Miller, N. A., & Najavits, L. M. (2012). Creating trauma-informed correctional care: A balance of goals and environment. *European Journal of Psychotraumatology, 3*(1), 17246. https://doi.org/10.3402/ejpt.v3i0.17246

Native American Prisoner Program. (n.d.). Retrieved from https://www.nativescents.com/native-prisoner-support.

Payne, P., Levine, P. A., & Crane-Godreau, M. A. (2015). Somatic experiencing: Using interoception and proprioception as core elements of trauma therapy. *Frontiers in Psychology, 6.* https://doi.org/10.3389/fpsyg.2015.00093

Preventing child abuse & neglect. (2021, March 23). Centers for Disease Control and Prevention. https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

Prison Policy Initiative. (2021). https://www.prisonpolicy.org/blog/2021/10/08/indigenouspeoplesday/

Shantz, J. (2010). 'The foundation of our community': Cultural restoration, reclaiming children and youth in an Indigenous community. *Journal of Social Welfare and Family Law, 32*(3), 229-236. https://doi.org/10.1080/09649069.2010.520515

Severson, R. E., Toman, E. L., & Alvarado, M. (2020). Mental health service utilization: General and gendered consequences for prison strains. *Crime & Delinquency, 66*(12), 1754-1786. https://doi.org/10.1177/0011128720937294

Tripodi, S., Pettus-Davis, C., Bender, K., Fitzgerald, M., Renn, T., & Kennedy, S. (2019). Pathways to recidivism for women released from prison: A mediated model of abuse, mental health issues, and substance use. *Criminal Justice and Behavior, 46*(9), 1219-1236. https://doi.org/10.1177/0093854819867119

U.S. incarcerated population. (2020). Prison Policy Initiative https://www.prisonpolicy.org/graphs/percent_incarcerated.html

Wang, L. (2021). *The U.S. criminal justice system disproportionately hurts native people: The data, visualized.* Prison Policy Initiative.

Why Ben & Jerry's Cares About Front End Criminal Justice Reform (And You Should, Too) (2019). Ben & Jerry's. Retrieved from https://www.benjerry.com/whats-new/2019/05/ben-jerrys-criminal-justice.

Wong, A. (2021, April 17). How do we heal from trauma*?* Psychology Today. https://www.psychologytoday.com/us/blog/the-body-knows-the-way-home/202104/how-do-we-heal-trauma