

HEALING INVISIBLE WOUNDS: Why Investing in Trauma-Informed Care for Children Makes Sense

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Introduction

Any number of factors can contribute to a person becoming involved in the criminal justice system, including a history of trauma or victimization. Over 93,000 children are currently locked up in juvenile correctional facilities around the country. Research shows that while up to 34 percent of children in the United States have experienced at least one traumatic event, between 75 and 93 percent of youth entering the juvenile justice system annually in this country are estimated to have experienced some degree of trauma.

With four million youth in the United States estimated to have experienced at least one traumatic event,¹ childhood trauma has become a pressing public health concern. A traumatic event can involve interpersonal events such as physical or sexual abuse, war, community violence, neglect, maltreatment, loss of a caregiver, witnessing violence or experiencing trauma vicariously; it can also result from severe or life-threatening injuries, illness and accidents. The direct and indirect costs associated with child maltreatment alone make it among the most costly public health problems in the United States.² Based on national surveys of youth in the United States:

- 14-34 percent of children have experienced at least one traumatic event;³
- Children are twice as likely as adults to be victims of serious violent crime and three times as likely to experience simple assault;⁴
- 13.4 percent of female adolescents report having been sexually assaulted;⁵
- 35-46 percent of adolescents report witnessing violence;⁶
- Youth of color are more likely to experience violence than their white counterparts (42.1 per 1,000 in the population versus 46.1, respectively).⁷

Significant research on the effects of trauma on youth and on its impact on youth involvement in both the juvenile and criminal justice systems shows that identifying children who have experienced trauma is either being done inappropriately or not as often as necessary. This may be leaving many of these young people without the services and treatment they need, thus making them more at risk for involvement in the justice system.

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Youth in correctional facilities already face significant challenges related to their incarceration and justice involvement, including separation from their families, communities, education and other positive social networks. But youth who have experienced trauma will be even more acutely affected. In addition, there is risk of re-traumatization by staff and other people in correctional facilities. Addressing a child's trauma through the public health system before the child becomes involved in the justice system, or if necessary while in the justice system, is critical to promoting the well-being of the child, his family and the community.

Traumatic experiences affect brain development in children.

Youth who have experienced trauma may be more likely to be involved in illegal behavior for a variety of reasons, including the neurological, psychological and social effects of trauma. A growing body of research in developmental neuroscience has begun to uncover the pervasive detrimental effects of traumatic stress on the developing brain. The majority of brain development is completed during the first five years of life, with the most critical development occurring within the first two years. Considering that the average first trauma exposure in children who experience trauma occurs at five years old,⁸ the experience of trauma in childhood is likely to impact some critical aspect of this brain development.

Brain structures responsible for regulating emotion, memory and behavior develop rapidly in the first few years of life and are very sensitive to damage from the effects of emotional or physical stress, including neglect. Some of these structures are measurably smaller in abuse survivors,⁹ and irregular brain activity in these areas among abuse survivors is correlated with an increased frequency of violence.¹⁰ Without adequate emotional control, particularly in aggression centers of the brain, people may fail to develop empathy and are more prone towards aggressive, violent and sociopathic behavior.¹¹

People who have experienced trauma often have abnormal blood levels of stress hormones, and the parts of the brain responsible for managing stress may not function as well as in people who have not been exposed to trauma.¹² Also, a decreased integration of the left and right sides of the brain following prolonged stress exposure can affect the ability to use logic and reason and can result in poor problem-solving skills.¹³ Although the most critical brain development occurs in early childhood, the part of the brain responsible for rational decision-making does not fully develop until the mid-20s. Because of this extended maturation process, in March 2005 the U.S. Supreme Court abolished the death penalty for people who committed their offense prior to age 18, citing scientific evidence that children should not be held accountable to the same extent as adults.¹⁴

People who experienced trauma as children are also more likely to develop life-long psychiatric conditions, including personality disorders, conduct disorder, ADHD, depression, anxiety, substance abuse disorders and posttraumatic stress disorder (PTSD). Developmental delays, decreased cognitive abilities, learning disabilities and even lower IQ levels have been observed among those who experienced trauma at a young age.¹⁵ Research shows that a majority of people with these histories experience school problems; school dropout and expulsion rates are as high as three times those of peers who had not experienced trauma.¹⁶

Traumatic Brain Injury and Juvenile Justice

The Brain Injury Association of America describes traumatic brain injury (TBI) as “a blow or jolt to the head or a penetrating head injury that disrupts the function of the brain.”¹⁷ The severity of TBI may range from mild (i.e. brief change in mental status) to severe (i.e. extended amnesia).¹⁸ According to the Centers for Disease Control, children and adolescents are at greater risk for TBI than adults, with the highest risk ages being 0-4 years and 15-19 years, respectively.¹⁹ The short and long-term consequences of TBI consist of physical (i.e. hearing, speech, vision, coordination), cognitive (i.e. perception, communication, reasoning, judgment), and behavioral (i.e. mood swings, anxiety, difficulty with emotional control and anger management) impairments.²⁰

A traumatic brain injury during the period of brain development, which lasts well into a person’s 20s,²¹ could disrupt the full development of decision-making skills and emotional controls that guide behavior. A traumatic brain injury combined with the impulsiveness of a youthful developing brain can increase the likelihood that a young person is involved in delinquent behavior. A large scale longitudinal research study in Finland found increased incidents of delinquency among youth who had experienced a traumatic brain injury prior to the age of 14.²² Additionally, recent research examining youth currently incarcerated in juvenile detention facilities in Missouri found high prevalence rates of TBI.²³

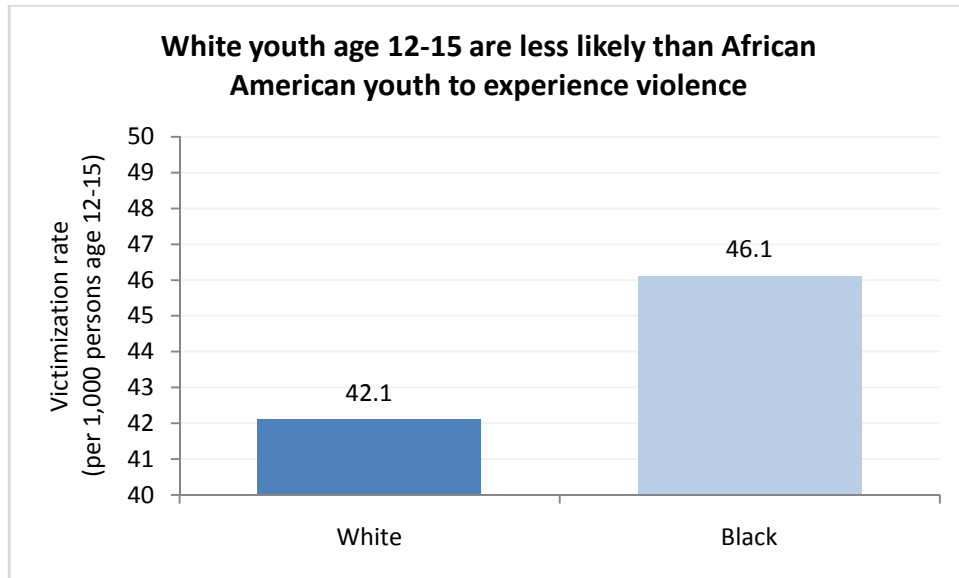
In addition to screening for psychological trauma, social agencies that come into contact with youth that need services should also test for physical trauma that may be contributing to delinquent behaviors.

People of color are more likely to be victims of crime and violence.

One source of trauma for both children and adults is being the victim of a crime. Research shows that those who may be most likely to experience victimization include people of color, people from single-parent households, people living in an urban environment or people from disadvantaged communities.²⁴ People with these same characteristics also bear the concentrated impact of incarceration.

Data from the National Crime Victimization Survey reveals that whites age 12 and over are less likely to be victims of violent offenses than African Americans or people identifying with more than one race.²⁵

When income is brought into the equation, African Americans who make less than \$7,500 per year are nearly twice as likely to be victims of violence as whites at the same income level (80.2 per 1,000 people versus 44.6, respectively).²⁶ Rates of victimization fall steadily as income increases.



Source: National Crime Victimization Survey, *Criminal Victimization in the United States, 2007 Statistical Tables*, Table 9. (Washington, D.C.: Bureau of Justice Statistics, 2009).
<http://bjs.ojp.usdoj.gov/content/pub/pdf/cvus0701.pdf>

Children are rarely screened for trauma, especially in the juvenile justice system.

Child-serving systems upstream of the justice system often fail to routinely screen for and treat trauma in referred children; alternatively, this information is not made readily available to these agencies. In one study, 84 percent of agencies reported either no or extremely limited information provided on the youth’s trauma history, and 33 percent of the agencies reported not training staff to assess for trauma at all. Although 60 percent of states surveyed report using universal or selective trauma screenings, the scope is often limited, and fewer than 20 percent of states provide evidence-based or otherwise standardized assessment tools.²⁷

Of the millions of youth who come into contact with the juvenile justice system every year, and the thousands who will enter some type of correctional facility, few will be screened for trauma-related symptoms or provided with trauma-informed care at their point of entry into the system. Screening for trauma may be overlooked because the behavioral responses to trauma often resemble the common delinquent behaviors seen in youth referred to the justice system and are therefore under-identified as posttraumatic symptoms. Additionally, traumatic stress may manifest differently in children of different ages or developmental stages, making it difficult to assess for stereotyped posttraumatic adaptations. Although it may be difficult to initially identify the role trauma has played in the child’s current circumstances, the mental health needs and basic trauma exposure history should be systematically identified at all stages of juvenile justice processing, ideally at the earliest point of contact with the system.

Evidence gathered through focus groups conducted with juvenile and family court judges suggests that current scientific information on childhood trauma has not fully permeated the justice system.²⁸ These focus groups revealed that over 50 percent of participants had not received prior training on the assessment or treatment of childhood trauma. Many are not aware of the psychological diagnoses or

symptoms that are common following trauma exposure and only 23.1 percent reported getting information from psychology journals. When judges were aware of issues related to childhood trauma, many reported being overwhelmed by the degree of trauma exposure among the children they encounter in court and frustrated with the lack of evidence-based treatments for trauma available in the community.

Children who experience trauma have disproportionate contact with the justice system.

One of the most unfortunate repercussions of childhood trauma is that children exposed to violence often grow up to engage in or become repeat victims of violence.²⁹ People who experience childhood trauma are more likely to be arrested for serious crimes both as youth and adults.³⁰ Many of the nation's most traumatized youth are found in the juvenile justice system, and a large percentage of adults in the criminal justice system report having experienced trauma in childhood. Illegal behavior is not an inevitable consequence of childhood trauma, however based on the diverse range of traumatic exposure observed among youth in the juvenile justice system, trauma can be considered a specific risk factor for future involvement with the justice system.³¹ A number of studies have examined the relationship between childhood trauma and justice involvement.

- Studies from a number of psychological journals report that between 75-93 percent of youth entering the juvenile justice system annually are estimated to have experienced some degree of traumatic victimization.³²
- A study of children held in a Chicago detention center found that over half of them had experienced more than six traumatic events prior to their detainment.³³
- Two studies reviewing the link between childhood maltreatment and juvenile justice involvement found that among males who experienced maltreatment prior to 12 years of age, 50-79 percent became involved in serious juvenile delinquency.³⁴
- A study published in the *Journal of Child Sexual Abuse* found that among young boys engaged in sexual offenses, 95 percent reported some type of trauma exposure, 77.5 percent reported more than one type of trauma and nearly half had experienced both physical and sexual abuse.³⁵
- A study of mental disorders in incarcerated women found that when compared to women in community samples, incarcerated women were more likely to report a history of childhood sexual or physical abuse.³⁶
- A study in the *Clinical Child and Family Psychological Review* found that most pre-teen and adolescent youth who participated in a homicide offense have histories of severe childhood maltreatment.³⁷

Additionally, studies show that 65-75 percent of youth in juvenile custody suffer from multiple mental health disorders, with 25 percent of these youth exhibiting severe functional impairment.³⁸ Given the link between trauma exposure and mental illness, and the prevalence of trauma among youth in the juvenile justice system, it is not surprising that mental illness is also highly prevalent among youth in the system.

The current juvenile justice system does not meet the needs of youth who have experienced trauma.

Once a child enters the justice system, quality, evidence-based trauma-informed treatments and interventions are not always provided. A number of factors contribute to this problem: lack of clinical resources in the community or within the juvenile justice system itself; an under-identification of trauma symptoms which are often mistaken for general behavioral disturbances; and greater resource expenditure on management of these behavioral issues rather than treatment of their underlying cause.³⁹ Additionally, when youth are detained in adult facilities, they are less likely to have access to youth-appropriate therapy, if they are able to access any mental health services at all.

Accompanying the growing awareness of the numerous and deleterious effects of childhood trauma has been a desire to understand—particularly within the last decade—the causes of and solutions to the disproportionate involvement of traumatized youth in the justice system. To this end, Congress established the National Child Traumatic Stress Network (the Network) in 2000.⁴⁰ The Network, funded by the Substance Abuse and Mental Health Services Administration of the U.S. Department of Health and Human Services, has a mission to raise the standard of care and improve access to services for children who have experienced trauma, their families and communities throughout the United States. Although the federal government recognized the far-reaching effects of childhood trauma by creating this collaborative network, a unified push for trauma-informed juvenile justice systems in states has yet to occur.

Although more than 50 percent of states provide some form of evidence-based treatment for youth with mental illness, their scope is often limited and they do not always include culturally competent or trauma-informed services.⁴¹ In recent years, 11 states have implemented large-scale, trauma-informed services or pilot programs into their youth services system, but their expansion remains limited by budget constraints. For example, in North Carolina, the Child Treatment Program was established in 2006 as a three-year pilot program for underserved counties.⁴² The program provided free treatment to uninsured children who have experienced sexual trauma and aimed to impact PTSD, depression and behavioral outcomes. Advanced training in an evidence-based form of therapy specifically for people who have experienced trauma was offered free of charge to eligible clinicians between 2008-2009, but a bill drafted to train additional clinicians across the state over three years failed to pass in the North Carolina state legislature, despite support from consumers, professionals and universities.⁴³

Incarceration itself can be traumatic.

For youth who have experienced trauma who are entering the justice system, the process of arrest and incarceration can itself represent a traumatic event. Confinement has been shown to exacerbate the symptoms of mental disorders, including PTSD, and the act of processing youth into juvenile custody (for example, using handcuffs, searches, isolation and restraints), as well as the risk of abuse by staff or other youth can be traumatizing.⁴⁴ In particular, characteristics of correctional facilities, such as seclusion, staff insensitivity or loss of privacy, can exacerbate negative feelings created by previous victimization, especially among PTSD sufferers and girls. Youth in correctional facilities are frequently exposed to verbal and physical aggression, which can intensify fear or traumatic symptoms. In addition,

investigations in recent years have uncovered deplorable conditions in youth correctional facilities across the country that could significantly impact youth:

- A 2007 General Accountability Office revealed problems with abuse, including 10 deaths, in juvenile facilities across 33 states and involving over 1,600 facility staff.⁴⁵ Most often, this abuse was related to untrained or inexperienced staff, poor nourishment as a form of “tough love” or negligent operating procedures.⁴⁶
- A Bureau of Justice Statistics survey of youth in custody revealed that 12 percent of adjudicated youth in state-operated and large, locally or privately owned juvenile facilities reported experiencing one or more incidents of sexual victimization by another youth or facility staff in the previous 12 months or since admission, if less than 12 months. Over 2,800 of these youth (10.7 percent) report sexual contact by staff, with or without the use of force.⁴⁷
- The juvenile justice system in New York State gained notoriety in recent years as an especially traumatic and poorly-run system, and has been rated by Human Rights Watch and the American Civil Liberties Union as among the worst in the world.⁴⁸ A U.S. Department of Justice (DOJ) report highlighted abuse at four youth residential centers, and based on the results of this investigation, the DOJ has raised the possibility of a federal takeover of the entire youth prison system.⁴⁹ Even though over 75 percent of youth entering New York’s justice system have drug or alcohol problems, and over half have been diagnosed with psychological disorders, these facilities failed to provide adequate counseling or mental health treatment.⁵⁰ Recently, more family court judges have tried to send youth to the Child Welfare Agency for foster care or residential placement, but the agency is unable to accommodate this increased demand due to resource constraints.

Youth who spend time in juvenile facilities have poorer outcomes than youth who stay in the community.

In the context of often overcrowded juvenile facilities, incarcerated youth may experience increased suicidal behavior, stress-related illness and psychiatric problems.⁵¹ Additionally, youth in secure confinement often do not develop social skills (such as self control and conflict resolution) on par with those who remain in the community. Overall, studies show that imprisoned youth have higher recidivism rates, are less likely to “age out” of illegal behavior, suffer more mental illness and are less likely to succeed at education and employment than youth who stay in the community.⁵²

In a follow-up study of youth involved in the juvenile justice system that examined outcomes as adults, placement in a correctional facility was found to be the most important determinant of adult outcomes.⁴⁰ The fewest adult aggressive offenses were committed by those who were returned to non-abusive households, followed by those returned to special schools, psychiatric hospitals or their families. The most offenses were committed by those discharged to adult prisons, group homes or other disciplinary settings. Trauma-exposed children with PTSD who are diverted to mental health treatment demonstrate higher recovery rates, suggesting that treatment is more effective than incarceration at reducing recidivism in youth with mental illness who have experienced trauma.⁵³

Conclusions and Recommendations

Trauma is an unfortunately common part of the lives of many U.S. children. The biological, psychological and social development of children who have experienced trauma is often derailed, resulting in increased involvement with the justice system, where their developmental and rehabilitative needs are often not met. Experts in medicine, psychology, social work and juvenile justice are advocating for system reforms that address the unique needs of children who have experienced traumatic events. A consensus exists among these experts that long-term strategies to treat rather than incarcerate are needed to curb the cycle of criminal justice involvement at its source and that these programs should be supported at federal and state levels.

Based largely on the collaborative work of researchers, clinicians and members of the National Child Traumatic Stress Network (NCTSN), JPI makes the following recommendations for child-serving systems, law enforcement, judges and entire judicial systems to better recognize and treat trauma in children. These recommendations outline “trauma-informed” care models for people who have experienced childhood trauma, the overall goal being to improve systematic responses to these people using evidence-based practices. The following policies outline steps towards a trauma-informed system.

Improve in-system understanding and public awareness of the effects of childhood trauma. Prior to contact with the justice system, other child-serving organizations have an opportunity to intervene on behalf of the children they may encounter. The National Child Traumatic Stress Network⁵⁴ recommends that systems work together to:

- increase public awareness of the impact of trauma and the range of effective trauma assessment strategies and interventions that exist;
- develop strategic partnerships with national organizations to help disseminate information, products and training tools; and
- provide trauma-focused education and skill-building for all staff across child-serving systems. This includes pediatric health practitioners in the community and school educators and administrators, who often represent the first service system to which the child will be exposed. Training should also extend to professionals in the child welfare system, broader health care system, juvenile justice systems, law enforcement/first responders and the mental health system.

Improve reporting of and screening for trauma exposure. One impediment to addressing youth trauma exposure is that the majority of violent victimizations of youth are not reported to authorities.⁵⁵ Adults may be unaware of the consequences of youth victimization, and youth may see reporting the incident as a sign of weakness or betrayal. In order to increase reporting, the justice system must emphasize an interest in assisting people who experience abuse, as well as supporting people who do report incidents of abuse or neglect. For example, supportive services for youth who have experienced a traumatic event could be expedited by simplifying the process of accessing these services and not requiring the person to pursue criminal charges. Within communities, there should be greater support for reporting incidents of abuse and neglect of youth.

Child welfare professionals such as custody evaluators or family court magistrates should investigate allegations of intimate partner violence or other domestic disturbance with an understanding of the

psychological, cognitive and behavioral consequences that occur following exposure to violent or insecure environments, even in the absence of direct physical harm to the child.⁵⁶

Once youth enter the juvenile justice system, a formal screening method for trauma is critical in identifying children and adolescents in the courtroom who suffer from stress related to trauma. Regular and universal screening for trauma history is recommended for all child-serving agencies, but this has a particularly critical application among certain populations, such as youth in substance abuse and delinquency programs.

Improve assessment of trauma exposure. Following a positive trauma screen, a more thorough and time-consuming trauma assessment should be performed by a professional trained in both general psychiatric assessment and child traumatic stress assessment.⁵⁷ This involves an investigation into the child's current environment beyond basic safety assurance, which is important for both diagnosis and treatment of trauma-related dysfunction. It is important to recognize that some information culled from an extensive assessment may have consequences for an ongoing legal case, particularly those involving substance use or violence. In order to protect the child's legal interests in the absence of mandated privacy considerations, these assessments may best be performed in the window between adjudication and disposition.

Provide targeted prevention and early intervention programs. Ideally, the needs of people who have experienced childhood trauma would be addressed prior to their entry into the justice system. Counseling and other early interventions should be provided for all people who have experienced trauma and should be instituted relatively soon following the initial incident. Schools are one place these interventions can occur, as the warning signals of reactivity to trauma may first become evident here.⁵⁸

Any professional in the community who has contact with children could be a reasonable target for education on trauma prevention, identification and early intervention. For example, the Violence Intervention Program led by Dr. Carnell Cooper at Baltimore's Shock-Trauma Hospital is an intensive in-hospital intervention program that works with recent victims of violence to prevent re-victimization. The program was founded to address the reality that health care providers are often the first and only professionals to encounter youth who have experienced trauma, and those who treat victims of violence may be uniquely poised to intervene before they enter the justice system or meet a worse fate.

For maximum effectiveness, public education, prevention and early intervention programs should be targeted to the groups and communities that research shows are most likely to experience trauma: youth of color, children in single-parent families, urban youth, those who have been previously victimized, youth with disabilities and youth from disadvantaged communities.⁵⁹

Provide services and treatment programs for children who have experienced trauma. Youth and families that have experienced trauma should be referred to practitioners or agencies that provide evidence-based, trauma-informed treatment. Youth should not have to enter the justice system to access these and other mental health services. Youth with trauma-related or other mental health needs should be preferentially diverted to mental health treatment in a community setting, if necessary. The therapy with the highest rating for adolescent trauma victims is "trauma-focused cognitive behavioral therapy" (TF-CBT), which has been used successfully in the treatment of PTSD and other trauma-related psychological disorders.⁶⁰ Therapy must be tailored to the individual trauma history and needs of the person and should include gender-specific and culturally-sensitive programming. This is especially

relevant since youth of color are disproportionately represented in the juvenile justice system, and girls often have unique mental health needs that are currently not met by most juvenile facilities.

Avoid further traumatization within the justice system. At all stages of processing, care should be taken to not further traumatize youth entering child-serving systems, most of whom have previous traumatic experiences or concurrent mental illness. First responders and police officers should be trained in trauma-sensitive handling and arrest methods. Every effort should be made to send children to the least restrictive and least traumatizing environments possible, which may entail rigorous inquiry into foster care, home environment or preferential placement in community-based treatment facilities. If this is not possible, the child should be placed in the least restrictive setting possible with access to this treatment and with minimal use of seclusion and restraints. A child should never be placed in an adult facility, because these facilities are far less likely to provide any mental health treatment and are not equipped to ensure the safety and well-being of youth. In light of recent reports of substandard and even life-threatening conditions in juvenile facilities, no child should be placed in a facility that has not recently passed rigorous health and safety standards.

Consider trauma exposure when deciding sentencing and placement. It is critical for judges to understand the role of trauma exposure on youth, particularly if the traumatic exposure may have contributed to an offense. This is particularly true when complex mental disorders or PTSD are evident. In some cases, the impact of the disorder on the youth's behavior can and should serve as a mitigating factor. Judges should receive training on the impact of trauma on youth and appropriate, evidence-based responses.

In recent years, the role of PTSD in the defense of combat veterans has gained national attention. Beginning in 1984, California allowed veterans convicted of felonies and suffering from substance abuse or psychological illness to receive treatment in federal facilities. In 2007, this mandate was updated to require the sentencing judge to hear evidence related to the person's military history in a special hearing. In 2008, Minnesota enacted the "Military Veterans Provision" which requires a pre-sentence investigation for all people convicted of a felony. This report describes the individual circumstances, characteristics, needs, criminal record and social history of the veteran, as well as the circumstances of the offense.

Recent developments in the treatment of people with PTSD reflect a growing understanding of the relationship between traumatization and criminal activity, and similar models should be applied to youth in the juvenile justice system. While prosecution and sentencing should take into account the behavioral and mental health of the young person, it is perhaps more critical that a consideration of trauma exposure impact placement decisions, as youth who are diverted to treatment programs are more likely to have better outcomes than those placed in correctional facilities.

Invest in prevention and trauma-informed programs. Although many states are currently grappling with record budget deficits, cutting prevention and trauma-informed programs may result in more costs down the road. The direct and indirect costs associated with child maltreatment make it among the most costly public health problems in the United States.⁶¹ Beyond the social benefit, by preventing or addressing child maltreatment early, both direct (medical and psychiatric care, government services, criminal justice, child protection services) and indirect (lost earnings and productivity) costs could be lowered substantially by investing in programs that work.⁶²

One study by the RAND Corporation comparing the cost of early childhood interventions to the benefits found that, in general, the benefits far outweigh the costs. This is true particularly when programs were targeted to the most at-risk populations who were the most likely to benefit from them.⁶³ For example, child abuse prevention programs save an estimated \$3 for every \$1 spent. However, cost-benefit analyses necessarily understate the benefit, since the exact cost of the program is always known while the full benefits may not be obvious or quantifiable.⁶⁴ Some of the benefits are derived from less use of other resources such as welfare services or incarceration or from a decreased cost of crime to society, all of which are not easily measured. Trauma-informed programs are as cost effective as other prevention and education programs and likely provide a similar benefit in exchange for the initial expenditure outlay.⁶⁵

The most humane and effective response to a person who has experienced trauma entering the justice system is one of treatment and support. We can no longer afford to ignore the evidence of both the prevalence and long-term effects of untreated childhood trauma. If we are to invest in a safe and strong society, we must start with children, whose unseen scars can hinder their ability to meet their adult potential.

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Recommended Reading

National Child Traumatic Stress Network: www.NCTSN.org

Hennessey M, Ford JD, Mahoney K, Ko SJ, Siegfried CB. Trauma among girls in the juvenile justice system. National Child Traumatic Stress Network, Juvenile Justice Working Group. 2004

Mahoney K, Ford JD, Ko SJ, Siegfried CB. Trauma-focused interventions for youth in the juvenile justice system. National Child Traumatic Stress Network, Juvenile Justice Working Group, 2004

Siegfried CB, Ko SJ, Kelley A. Victimization and juvenile offending. National Child Traumatic Stress Network, Juvenile Justice Working Group. 2004

Wolpaw JM, Ford JD. Assessing exposure to psychological trauma and post-traumatic stress in the juvenile justice population. National Child Traumatic Stress Network, Juvenile Justice Working Group. 2004

Sprague, C. Informing Judges About Child Trauma. NCTSN Service System Briefs. August, 2008; 2(2)

Taylor N, Siegfried CB. Helping children in the child welfare system heal from trauma: A systems integration approach from the National Child Traumatic Stress Network Systems Integration Working Group. 2005

Heide KM, Solomon EP. Biology, childhood trauma, and murder: rethinking justice. International Journal of Law and Psychiatry. 2006; 29: 220-233.

-
- ¹ Craig CD, Sprang G. Trauma exposure and child abuse potential: investigating the cycle of violence. *American Journal of Orthopsychiatry*. 2007; 77(2): 296-305
- ² Putnam FW. The impact of trauma on child development. *Juvenile and Family Court Journal*. 2006; 57: 1-11.
- ³ Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*. 1998; 14(4)
- ⁴ Felitti VJ, et al. 1998; Costello EJ, Erklani A, Fairbank J, Angold A. The prevalence of potentially traumatic events in childhood and adolescence. *Journal of Traumatic Stress*. 2003; 15:99-112
- ⁵ Kilpatrick DG, Saunders BE, Smith DW. Youth victimization: Prevalence and implications. National Institute of Justice: Research in Brief, April 2003. Washington, DC: US Department of Justice, Office of Justice Programs. www.ncjrs.gov/pdffiles1/nij/194972.pdf
- ⁶ Kilpatrick DG, Ruggiero KJ, Acierno R, Saunders BE, Resnick HS, Best CL. Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the National Survey of Adolescents. *Journal of Consulting and Clinical Psychology*. 2003; 71(4): 692-700
- ⁷ *Criminal Victimization in the United States, 2007 Statistical Tables*, Table 9. Washington, D.C.: Bureau of Justice Statistics. 2009. <http://bjs.ojp.usdoj.gov/content/pub/pdf/cvus0701.pdf>
- ⁸ Putnam FW. 2006
- ⁹ Shin LM, Rauch SL, Pitman RK. Amygdala, medial prefrontal cortex, and hippocampal function in PTSD. *Annals of the New York Academy of Sciences*. 2006; 1071: 67-79; Solomon EP, Heide KM. The biology of trauma: implications for treatment. *Journal of Interpersonal Violence*. 2005; 20: 51
- ¹⁰ Ito Y, Teicher MH, Glod CA, Harper D, Magnus E, Gelbard HA. Increased prevalence of electrophysiological abnormalities in children with psychological, physical, and sexual abuse. *Journal of Neuropsychiatry and Clinical Neurosciences*. 1993; 5: 401-408
- ¹¹ Shin LM, et al. 2006; Heide KM, Solomon EP. Biology, childhood trauma, and murder: rethinking justice. *International Journal of Law and Psychiatry*. 2006; 29: 220-233; Raine A, Buchsbaum M, LaCasse L. Brain abnormalities in murderers indicated by positron emission tomography. *Biological Psychiatry*. 1997; 42(6): 495-508; Blake PY, Pincus JH, Buckner C. Neurologic abnormalities in murderers. *Neurology*. 1995; 45(9): 1641-1647
- ¹² Solomon EP, et al. 2005; Cook A, Blaustein M, Spinazzola J, van der Kolk B, Eds. Complex trauma in children and adolescents. White Paper from the National Child Traumatic Stress Network Complex Trauma Task Force. 2003 www.NCTSN.org; Sapolsky RM. Why stress is bad for your brain. *Science*. 1996; 273:749-50
- ¹³ Teicher MH, Dumont NL, Ito Y, Valtusiz C, Giedd JN, Anderson SL. Childhood neglect is associated with reduced corpus callosum area. *Biological Psychiatry*. 2004; 56: 80-85
- ¹⁴ *Roper v. Simmons* 543 U.S. 551 (2005)
- ¹⁵ Goodman GS, Quas JA, Ogle CM. Child maltreatment and memory. *Annual Review of Psychology*. 2009; 61: 325-351
- ¹⁶ Putnam FW. 2006; Goodman GS, et al. 2009
- ¹⁷ Brain Injury Association of America, "Facts about Traumatic Brain Injury," 2006. www.biausa.org/aboutbi.htm.
- ¹⁸ Centers for Disease Control and Prevention, "Traumatic Brain Injury," March 2010. www.cdc.gov/TraumaticBrainInjury/
- ¹⁹ Mark Faul and others, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations and Deaths 2002-2006* (Washington, DC: Center for Disease Control and Prevention, 2010). www.cdc.gov/traumaticbraininjury/pdf/blue_book.pdf
- ²⁰ Centers for Disease Control and Prevention, "What are the Potential Long-Term Outcomes of TBI?" March 2010. www.cdc.gov/TraumaticBrainInjury/outcomes.html; Brain Injury Associate of America, *Brain Injury: The Teenage Years – Understanding and Preventing Teenage Brain Injury*, 2002. www.biausa.org/publications/Teenage.Years%20_Edited_.pdf
- ²¹ Coalition for Juvenile Justice, *2006 Emerging Concepts Brief: What are the Implications of Adolescent Brain Development for Juvenile Justice?* (Washington, D.C.: Coalition for Juvenile Justice, 2006). www.juvjustice.org/media/resources/public/resource_134.pdf
- ²² Paula Rantakallio and others, "Association of Perinatal Events, Epilepsy, and Central Nervous System Trauma with Juvenile Delinquency," *Archives of Disease in Childhood* 67 (1992): 1459-61.

-
- ²³ Brian E. Perron and Matthew O. Howard, "Prevalence and Correlates of Traumatic Brain Injury among Delinquent Youths," *Criminal Behaviour and Mental Health* 218 (2008): 243-55.
- ²⁴ Siegfried CB, Ko SJ, Kelley A. Victimization and juvenile offending. National Child Traumatic Stress Network, Juvenile Justice Working Group. 2004. www.NCTSNet.org
- ²⁵ *Criminal Victimization in the United States, 2007 Statistical Tables*, Table 5. Washington, D.C.: Bureau of Justice Statistics. 2009. <http://bjs.ojp.usdoj.gov/content/pub/pdf/cvus0701.pdf>
- ²⁶ *Criminal Victimization in the United States, 2007 Statistical Tables*, Table 15. Washington, D.C.: Bureau of Justice Statistics. 2009. <http://bjs.ojp.usdoj.gov/content/pub/pdf/cvus0701.pdf>
- ²⁷ Taylor N, Siegfried CB. Helping children in the child welfare system heal from trauma: A systems integration approach from the National Child Traumatic Stress Network Systems Integration Working Group. 2005. www.nctsnet.org/nctsn_assets/pdfs/promising_practices/A_Systems_Integration_Approach.pdf
- ²⁸ Sprague, C. Informing Judges About Child Trauma. NCTSN Service System Briefs. August, 2008; 2(2). www.NCTSNet.org
- ²⁹ Craig CD, et al. 2007; Neigh GN, Gillespie CF, Nemeroff CB. The neurobiological toll of child abuse and neglect. *Trauma Violence Abuse*. 2009; 10: 389
- ³⁰ Holowka DW, King S, Saheb D, Pukall M, Brunet A. Childhood abuse and dissociative symptoms in adult schizophrenia. *Schizophrenia Research*. 2003; 60(1): 87-90
- ³¹ Shaffer JN, Ruback RB. Violent victimization as a risk factor for violent offending among juveniles. *Juvenile Justice Bulletin*, December, 2002. Washington, DC: US Department of Justice, Office of Juvenile Justice and Delinquency Prevention. www.ncjrs.gov/pdffiles1/ojdp/195737.pdf
- ³² Kilpatrick DG. 2003; Sprague, C. 2008; Maschi T. Unraveling the link between trauma and male delinquency: the cumulative versus differential risk perspectives. *Social Work*. 2006; 51(1): 59; Abram KM, Teplin LA, Charles DR, Longworth SL, McClelland GM, Dulcan MK. Posttraumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry*. 2004; 61: 403-410; Arroyo W. PTSD in children and adolescents in the juvenile justice system. S. Eth (Ed.). *Review of Psychiatry*. 2001; 20(1): 59-86. In *Children and Adolescents* (1st ed). Washington, DC: American Psychiatric Publishing; Cauffman E, Feldman SS, Waterman J, Steiner H. Posttraumatic stress disorder among incarcerated females. *Journal of the American Academy of Child and Adolescent Psychiatry*. 1998; 37: 1209-1216
- ³³ Abram KM, et al. 2004
- ³⁴ Stouthamer-Loeber M, Wei EH, Homish DL, Loeber R. Which family and demographic factors are related to both maltreatment and persistent serious juvenile delinquency? *Children's Services: Social Policy, Research, and Practice*. 2002; 5: 261-272; Lemmon JH. How child maltreatment affects dimensions of juvenile delinquency in a cohort of low-income urban youths. *Justice Quarterly*. 1999; 16: 357-376
- ³⁵ McMackin RA, Leisen MB, Cusack JF, LaFratta J, Litwin P. The relationship of trauma exposure to sex offending behavior among male juvenile offenders. *Journal of Child Sexual Abuse*. 2002; 11(2): 25-40
- ³⁶ Zlotnick C. Posttraumatic stress disorder, PTSD comorbidity, and childhood abuse among incarcerated women. *Journal of Nervous and Mental Disease*. 1997; 185: 761-763
- ³⁷ Shumaker DM, Prinz R. Children who murder: a review. *Clinical Child and Family Psychology Review*. 2000; 3(2): 97-115
- ³⁸ Skowyra K, Coccozza JJ. A blueprint for change: Improving the system response to youth with mental health needs involved with the juvenile justice system. National Center for Mental Health and Juvenile Justice, Research and Program Brief. June 2006; Teplin L, Abram K, McClelland GM, Dulcan M, Washburn JJ. Psychiatric disorders of youth in detention. *Juvenile Justice Bulletin*. April 2006; 1-16; Wasserman GA, McReynolds LS, Lucas CP, Fisher P, Santos L. The voice DISC-IV with incarcerated male youths: prevalence of disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2002; 41: 314-321
- ³⁹ Mahoney K, Ford JD, Ko SJ, Siegfried CB. Trauma-focused interventions for youth in the juvenile justice system. National Child Traumatic Stress Network Juvenile Justice Working Group, 2004. www.NCTSNet.org
- ⁴⁰ National Childhood Traumatic Stress Network, www.nctsnet.org
- ⁴¹ Siegfried C, Van Tassel R. What states are doing about child trauma. Presentation to the 2010 International Conference on Child and Family Maltreatment. San Diego, CA, January 27, 2010.
- ⁴² North Carolina Child Treatment Program website. www.cfar.unc.edu/

-
- ⁴³ Siegfried C, et al. 2010.
- ⁴⁴ Abram KM, et al. 2004; Cooper JL. Creating policies to support trauma-informed perspectives and practices. Third Annual Symposium, Bridging the Gap. November, 2009: Fort Worth, TX; Huckshorn, KA. Re-designing state mental health policy to prevent the use of seclusion and restraint. *Administration and Policy in Mental Health*. 2006; 33(4): 482-491
- ⁴⁵ Statement of Gregory D. Kutz, Managing Director Forensic Audits and Special Investigations, Testimony Before the Committee on Education and Labor, House of Representatives, RESIDENTIAL PROGRAMS: Selected Cases of Death, Abuse, and Deceptive Marketing, April 24, 2008, www.gao.gov/new.items/d08713t.pdf; Ken Dillanian, GAO finds abuses at 'tough love' camps for troubled kids, USA Today, October 10, 2007, www.usatoday.com/news/nation/2007-10-10-boot-camps_N.htm
- ⁴⁶ Cooper JL. 2009
- ⁴⁷ Beck AJ, Harrison PM, Guerino P. Sexual victimization in juvenile facilities reported by youth, 2008-09. Bureau of Justice Statistics; January 7, 2010. <http://bjs.ojp.usdoj.gov/index.cfm?ty=pbdetail&iid=2113>
- ⁴⁸ Human Rights Watch and ACLU, Custody and Control: Conditions of Confinement in New York's Juvenile Prisons for Girls, 2006, www.aclu.org/womens-rights/custody-and-control-conditions-confinement-new-york%E2%80%99s-juvenile-prisons-girls
- ⁴⁹ Letter from Loretta King, Acting Assistant Attorney General at the US DOJ/Civil Rights Division to NY Governor Paterson, 8/14/09, Investigation of the Lansing Residential Center, Louis Gossett, Jr. Residential Center, Tryon Residential Center, and Tryon Girls Center www.justice.gov/crt/split/documents/NY_juvenile_facilities_findlet_08-14-2009.pdf
- ⁵⁰ Confessore N. 4 youth prisons in New York used excessive force. *The New York Times*. August 25, 2009
- ⁵¹ Burrell S, DeMuro P, Dunlap E, Sanniti C, Warboys L. Crowding in juvenile detention facilities: A problem-solving manual. National Juvenile Detention Association and Youth Law Center, 1998: Richmond, KY.
- ⁵² Justice Policy Institute. *The Costs of Confinement: Why Good Juvenile Justice Policies Make Good Fiscal Sense*. May, 2009: Washington, DC.
- ⁵³ Weintraub L. Inner-city posttraumatic stress disorder. *Journal of Psychiatry and Law*. 1997; 249(25): 249-286
- ⁵⁴ NCTSN Service System Brief, *Creating Trauma-Informed Child-Serving Systems*, www.nctsn.org/nctsn_assets/pdfs/Service_Systems_Brief_v1_v1.pdf
- ⁵⁵ Siegfried CB, Ko SJ, Kelley A. Victimization and juvenile offending. National Child Traumatic Stress Network, Juvenile Justice Working Group. 2004. www.NCTSN.org
- ⁵⁶ Putnam FW. 2006
- ⁵⁷ Ford, J. D., Chapman, J. F., Hawke, J. & Albert, D. Trauma among youth in the juvenile justice system: Critical issues and new directions. National Center for Mental Health and Juvenile Justice Research Brief. 2004. www.cwla.org/programs/juvenilejustice/ncmhjjtraumayouth.pdf.
- ⁵⁸ Siegfried CB, et al. 2004.
- ⁵⁹ Siegfried CB, et al. 2004.
- ⁶⁰ Putnam FW. 2006; Cohen JA, Mannarino AP, Deblinger E. *Child and parent trauma-focused cognitive behavioral therapy treatment manual*. Philadelphia: Drexel University College of Medicine. 2003; Saunders, B.E., Berliner, L., & Hanson, R.F. (Eds.). (2004). *Child Physical and Sexual Abuse: Guidelines for Treatment (Revised Report: April 26, 2004)*. Charleston, SC: National Crime Victims Research and Treatment Center
- ⁶¹ Putnam FW. 2006
- ⁶² Mulvihill D. The health impact of childhood trauma: an interdisciplinary review, 1997-2003. *Issues in Comprehensive Pediatric Nursing*. 2005; 28: 115-136
- ⁶³ Karoly L, Greenwood P, Everingham S, Houe J, Kilburn M, Rydell C. Investing in our children: What we know and don't know about the costs and benefits of early childhood interventions. 1998. Santa Monica, CA: RAND Corporation
- ⁶⁴ Karoly L, et al. 1998; Waldron RJ. Reducing and containing cost in correctional health care. In (J. Moore, Ed.) *Management and Administration of correctional health care*. (pp. 17-1-16). 2003. Kingston, NJ: Civic Research Institute
- ⁶⁵ Kamradt B. Funding mental health services for youth in the juvenile justice system: Challenges and opportunities. National Center for Mental Health and Juvenile Justice. 2002