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National Study of Childhood Traumatic Events and Adolescent and Adulthood Criminal Justice Involvement Risk: Evaluating the Protective Role of Social Support from Mentors During Adolescence

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Abstract

Objective: With nearly 11 million people in the United States arrested in 2015, the need to identify antecedent risk factors driving criminal justice involvement (CJI) and possible mitigating factors is crucial. This study examines the relation between childhood trauma and CJI in adolescence and adulthood and assesses how this relation is moderated by mentoring during young adulthood.

Methods: We analyzed three waves of data – adolescents, young adults, and adults – collected from 1995 to 2008 from 12,288 adolescents who participated in the National Longitudinal Study of Adolescent to Adult Health, a nationally-representative study of adolescents in grades seven to 12. We used logistic regression to examine how having a close mentor in adolescence moderated the relation between criminal justice involvement and nine childhood traumatic events: (1) neglect; (2) emotional, (3) physical, and (4) sexual abuse; (5) parental incarceration; (6) parental binge drinking; (7) witnessed, (8) threatened with, and (9) experienced violence.

Results: Cumulative exposure to childhood trauma was associated with CJI in adolescence (adjusted odds ratios (AOR) ranging from 1.44–2.69) and adulthood (AORs 1.35–6.39), and parental incarceration was consistently one of the, if not the, most strongly associated with each form of CJI; the strength of these associations was weakened for those who reported a close mentor compared to those who did not.

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Conclusions: This study advances the literature regarding trauma and CJI, highlighting the role of social support and mentorship as protective factors for youth who experience childhood trauma. We must now look towards interventions aimed at protecting vulnerable children from the harms of trauma.

Keywords

Childhood Trauma; Criminal Justice Involvement; Mentorship

Introduction

The United States has the largest incarcerated population in the world.¹ Given that criminal justice involvement (CJI) is associated with a range of adverse behavioral and physical health outcomes, the high rates of U.S. incarceration come at great individual and societal costs.^{2,3} While disproportionate U.S. incarceration rates are explained by changes over the past 40 years in policing and sentencing,⁴ individual-level behaviors play a role in CJI risk.^{5,6} By identifying antecedent factors that contribute to CJI, we can better understand how to prevent a trajectory of risk that leads to arrest and incarceration.

Criminal justice populations report disproportionately high rates of maltreatment during childhood, including physical, sexual, and emotional abuse, and neglect.^{7–12} Prospective studies indicate childhood trauma contributes to CJI in adolescence and adulthood;^{10,12–14} among the most rigorous studies, one retrospective cohort of 1,539 minority children followed into young adulthood (ages 22–24) found that childhood maltreatment was an independent risk factor associated with almost three times the odds of adulthood incarceration.¹² Criminal justice populations report a range of diverse traumatic events including not only maltreatment but also neglect, household dysfunction traumas, and violence;^{15–19} a large, nationally representative study is warranted to assess the potential contributing role of a range of traumatic experiences to CJI. Given evidence from regional models, indicating increasing burden of childhood trauma is associated with delinquency and offending in dose response fashion,^{20,21} a general population study should assess the independent impacts of distinct childhood traumas, as well as the cumulative burden of childhood trauma.

An additional gap in the literature on childhood trauma and incarceration is the relative lack of understanding of factors that may protect against the negative effects of experiencing trauma and decrease trauma-related CJI risk. There is evidence social support may mitigate the negative effects of childhood trauma,^{22,23} by decreasing risky and violent behaviors in children^{24,25} and decreasing the likelihood of psychiatric disorders and drug dependence,²⁶ risk factors of offending and in turn CJI.^{27,28} In addition to emotional support, material support may also help an individual at risk of incarceration avoid detainment. For example, the bail system has been criticized for discriminating against people who are poor^{29,30} or without material support, such that an individual with friends or family members to help pay bail will be less likely to be jailed (whereas someone without money or outside financial support will not). Support from outside the family system, like from a mentor, shows promise in protecting children with trauma histories from trajectories of risk and CJI; for

example, there is evidence that the effects of witnessing violence and experiencing physical abuse on offending behaviors appear to be mitigated among adolescent males who report that they have someone to count on.²⁴ Moreover, programs for children and youth who experienced parental incarceration have been effective in improving school performance, feelings of well-being, and relationships.^{31–33} The degree to which mentorship mitigates the impact of cumulative trauma burden that account for the range of traumatic experience on CJI has not been documented.

The current study aims to examine the relations between childhood trauma and later (adolescent and adult) arrest, incarceration, and delinquent behaviors in a nationally-representative sample. We examine a diverse range of traumatic experiences before the age of 18, as well as cumulative trauma burden, to explore the independent and combined effects of trauma on delinquency, arrest, and incarceration. In addition, we examine the effect of mentorship as a moderator of the association between cumulative trauma and CJI.

Methods

Design and Sample

This secondary data analysis uses data from The National Longitudinal Study of Adolescent to Adult Health (Add Health) -- a stratified, random sample of more than 20,000 U.S. middle and high school students who were followed prospectively from adolescence into adulthood. This analysis included data from 12,283 respondents collected at Wave I (ages 11–21; collected in April and December 1995), Wave III (18–26; collected in August 2001 to April 2002), and Wave IV (ages 24–34; collected in 2008), who had sample weights at each wave.^{34,35} This study was deemed non-human subjects research by the NYU School of Medicine Institutional Review Board.

Measures

Childhood Traumatic Experiences.

To replicate the ACE study's trauma score, we developed nine dichotomous measures of self-reported traumatic experiences before the age of 18 years. The cut-points for the dichotomization of the exposure to each trauma were based on the ACE study¹⁹ and previous literature, in which any sexual abuse is considered endorsing the trauma,^{17,36,37} and reporting that a trauma occurred six times is considered equivalent to the ACE study's threshold of "often" or "very often" for neglect, emotional and physical abuse.^{38–40}

Neglect was operationalized as having been left alone when an adult should have been present and/or not having basic needs met by an adult caregiver six times. Emotional abuse was defined as endorsing that a parent/adult caregiver said things that really hurt one's feelings or made one feel unloved six times. Physical abuse was having been slapped, hit, kicked, or thrown by a parent/adult caregiver six times. Sexual abuse was a parent/adult caregiver touching the respondent or forcing the respondent to touch him or her in sexual way or forcing sexual relations one or more times. Parental incarceration included responses from four items which assessed whether a biological parent/parental figure had spent time in jail or prison. Parental binge-drinking was assessed in the parent interview as having five

drinks on one occasion at least once in the past month, which is in accordance with the Substance Abuse and Mental Health Services Administration.⁴¹ Witnessing violence was having seen someone shoot or stab another person. Threatened with violence was defined as endorsing that someone pulled a knife or gun on the respondent. Experienced violence was defined as having been shot or cut/stabbed. Each of these traumatic experiences were summed to create a score representing the cumulative number of childhood traumas, which was then categorized into none, one, two, three, four, and five traumas. Only respondents who had data for each of the nine traumas were included ($n = 9,569$).

Delinquency.

Delinquent behaviors were reported at Waves I and IV. These included: deliberately damaging others' property, stealing something worth more/less than \$50, going into a house to steal something, using/threatening to use a weapon to get something from someone, selling drugs, or physical group fights. Wave I and Wave IV delinquency responses were summed and dichotomized as no or any acts in adolescence and adulthood, respectively, as has been done previously given there is no common method of measuring delinquency and the median number of delinquent acts is one in Add Health.⁴²

Criminal Justice Involvement.

Arrest and incarceration before and after 18 were reported at Wave IV, as was number of total arrests and lifetime duration of incarceration. Arrested and incarceration before/after 18 were dichotomized as never versus at least once. Frequency of arrest was dichotomized as arrested zero to four times and arrested five or more times; the split was based on the mean frequency of arrest among those who had been arrested. Duration of lifetime incarceration was summed and dichotomized as spending one month or less incarcerated (including never incarcerated) and spending more than one month incarcerated; the split was based on the mean duration of incarceration among those who had been incarcerated.

Mentorship.

At Wave III, mentorship was assessed by the following question: "Other than your parents or step-parents, has an adult made an important positive difference in your life at any time since you were 14 years old?" This item has been used similarly to assess mentorship in previous studies of the Add Health data set.^{43,44} A follow-up question assessing closeness to the mentor ("how close do you feel to him or her?") was dichotomized; if the respondent reported not having a mentor, or endorsing a relationship with him or her that was not close at all, only a little close, or somewhat close, the response was coded as no mentor/not close to mentor. If the respondent reported his or her relationship with a mentor as quite close or very close, the response was coded as close to mentor.

Sociodemographics.

The following sociodemographic characteristics were examined: age, sex (male or female), race/ethnicity (non-Hispanic white, non-Hispanic African American, Hispanic, and other), poverty during adolescence and emerging adulthood (not having enough money to pay utility/housing bills according to parental report at Wave I and participant report during

Wave III), and education status (less than a high school education, high school education, or greater than high school education).

Data Analysis

All analyses were conducted using SAS 9.4.⁴⁵ Univariable analyses were used to estimate the weighted prevalence of the individual and cumulative number of childhood traumas in the entire sample. Logistic regression was used to estimate unadjusted and adjusted odds ratios and 95% confidence intervals for associations between each individual trauma and the cumulative number of traumas and outcomes. Adjusted analyses of adolescent outcomes controlled for age, race, sex, and poverty at Wave I; models for adulthood outcomes additionally included poverty and education at Wave IV. We examined moderation of mentorship closeness on the relation between cumulative trauma burden and outcomes of arrest and incarceration after age 18 by testing the significance of a trauma score by adulthood mentorship interaction term, interpreting $p < 0.10$ to suggest statistically significant differences in the relationship between trauma and outcomes by mentorship.

Results

Study Population Characteristics

Increasing levels of education were associated with a stepwise reduction in the likelihood of incarceration (Table 1). Males were significantly more likely to have a history of incarceration (23.8%) compared to females (7.5%). Concerns about ability to pay bills at Wave I and IV were both significantly associated with incarceration.

Individual and Cumulative Traumas and Delinquency

All nine individual traumas were significantly associated with adolescent delinquency (Table 2). After adjusting for socio-demographics, all but sexual abuse and parental binge drinking remained significant; the three traumas most strongly associated with delinquency were those related to violence. The association between trauma score and adolescent delinquency was significant and increased in a stepwise fashion, with about a 50% increase in the adjusted odds for each unit increase in the number of traumatic events.

All nine individual trauma events were significantly associated with adulthood delinquency (Table 2). After adjustment, emotional abuse, parental incarceration, threatened with violence, and sexual abuse remained significant. The cumulative number of traumas were significantly associated with adulthood delinquency, with four traumas associated with almost three times the odds.

Individual and Cumulative Traumas and Arrest

All nine individual trauma events were significantly associated with increased risk of adolescent arrest (Table 3). All traumas except neglect, emotional abuse, and experienced violence remained significant after adjustment. Parental incarceration had the strongest adjusted association, with 2.69 times the odds; followed by witnessed violence, 2.28 times the odds; and threatened with violence, 2.19 times the odds. The associations between

trauma score and adolescent arrest were significant and increased in a stepwise fashion, with five or more traumas associated with 16.42 the odds.

All nine individual trauma events were significantly associated with arrest after the age of 18 (Table 3). After adjustment, parental incarceration had the largest association, with 2.28 times the odds. Neglect, physical abuse, witnessed violence, and threatened with violence remained significant after adjustment. There was a significant association between trauma score and arrest after age 18, with four traumas having the strongest association, at almost 7 times the odds.

All nine individual trauma events were significantly associated with frequent arrest in lifetime (defined as more than four times; Table 3). After adjustment, parental incarceration had the strongest association of 2.46 times the odds, followed by sexual abuse with 2.31 times the odds, and threatened with violence with 2.19 times the odds. Physical abuse, parental binge drinking, and witnessed violence were also significantly associated with frequent arrest, with odds ratios (ORs) ranging from 1.60–1.81. In adjusted analyses, cumulative trauma score was significantly associated with increased odds of frequent lifetime arrest, with an almost an 80% increase in the odds for each unit increase in the number of traumas.

Individual and Cumulative Traumas and Incarceration

All nine individual trauma events were significantly associated with increased odds of incarceration before the age of 18 (ORs ranging from 1.74–4.63; Table 4). After adjustment, parental incarceration had the strongest association, with parental binge drinking, witnessed violence, and experienced violence also remaining significant. In adjusted analyses, the cumulative number of traumas were significantly associated with incarceration before 18, with those who experienced five or more traumas having 26 times the odds of being incarcerated before 18 compared to those with no trauma.

Incarceration after 18 was significantly associated with all nine trauma events (Table 4). After adjustment, physical abuse, sexual abuse, parental incarceration, witnessed violence, and threatened with violence remained significant. Cumulative trauma exposure had no discernable trend with incarceration after 18. In addition, all individual traumas were significantly associated with incarceration duration of more than one month. After adjustment, all associations remained significant except emotional abuse and experienced violence; parental incarceration had the strongest association, 2.73 times the odds. In adjusted analyses, trauma score was significantly associated with incarceration for more than one month; a trauma score of four had the strongest association, 11.80 times the odds.

Moderation by Mentorship for Arrest and Incarceration

In adjusted analyses examining effect modification by having a close mentor, increasing number of traumas was associated with a stepwise in odds of arrest after 18 in both groups (i.e., those with no/non-close mentor and those with a close mentor). However, estimates were weaker among those with a close mentor (AORs ranging from 2.41–3.60; Table 5) compared to those with no/non-close mentors (AORs ranging from 1.87–6.93; Table 5). Specifically, three or more traumas were associated with approximately seven times the odds

of arrest after 18 among those with no/non-close mentor (AOR = 6.93, 95% Confidence Interval (CI) = 4.80–10.02; Table 5) versus approximately four times the odds among those with a close mentor (AOR = 3.60, 95% CI = 2.27–5.71; Table 5). Experiencing two traumas was associated with 3.27 times the odds of arrest after 18 among those with no/non-close mentor (95% CI = 2.28–4.68; Table 5) compared to 2.65 times the odds among those with a close mentor (95% CI = 1.85–3.79; Table 5). One trauma was associated with 1.87 times the odds of arrest after 18 among those with no/non-close mentor (95% CI = 1.35–2.58; Table 5) and 2.41 times the odds among those with a close mentor (95% CI = 1.69–3.45; Table 5).

Incarceration after the age of 18 demonstrated a similar pattern when comparing those who reported close mentorship versus those with no/non-close mentors; that is, the more traumas experienced, the higher the odds of incarceration after 18 for both groups. The magnitude of the association between trauma and incarceration were attenuated for those reporting close mentorship (AORs ranging from 2.10–2.24; Table 5) compared to those reporting no/not close mentorship (AORs ranging from 1.97–3.57; Table 5). Three or more traumas was associated with 3.57 times the odds of incarceration after 18 (95% CI = 2.51–5.10; Table 5) for those with no/non-close mentor and 2.24 times the odds (95% CI = 1.48–3.37; Table 5) for those with a close mentor. For those reporting two traumas, the association with incarceration after 18 was 2.53 times the odds for those with no/non-close mentor (95% CI = 1.87–3.42; Table 5) and 1.90 times the odds for those with a close mentor (95% CI = 1.32–2.73; Table 5). Similarly, one trauma was associated with 1.97 times the odds of incarceration for those with no/non-close mentorship (95% CI = 1.46–2.67; Table 5) versus 2.10 times the odds for those with close mentorship (95% CI = 1.46–3.02; Table 5).

Discussion

In this nationally-representative sample, a broad range of traumas was associated with delinquency, arrest, and incarceration across the life-course. Cumulative trauma burden was also strongly associated with delinquent acts and CJI in a dose-response fashion. For example, experiencing one, two, or three or more traumas was linked to greater than two, six, and 10 times the odds of adolescent incarceration, respectively; these effects weakened but remained into adulthood. This study also demonstrates the potential efficacy of mentorship as a means to mitigate the negative impact of cumulative trauma burden on later criminal justice involvement.

The current findings on trauma and involvement in the criminal justice system are consistent with regional models,¹⁸ indicating a range of traumatic events have moderate to strong associations with delinquency, arrest, and CJI,^{10,12,13,15,46} and that cumulative trauma burden is linked to these outcomes in a dose-response fashion.¹⁵ This provides further evidence of the persistent effect of trauma on delinquency, arrest, incarceration at the national level.^{10,11,14,24}

Our study is the first to our knowledge to examine the individual and composite effects of each trauma in a nationally-representative sample. Screening for childhood trauma has demonstrated feasibility, and the relation with adverse health outcomes is widely known; however, the uptake and implementation of assessing childhood trauma is far from routine.

Brief screenings are usually conducted by staff members upon entry into a detention center, and one measure is often not sufficient to accurately evaluate trauma.⁴⁷ Using a combination of trauma screeners, or also screening for post-traumatic stress disorder (PTSD), would likely provide the most accurate assessments.⁴⁷

Extant research has shown the efficacy of both trauma-informed and even more potent trauma-specific interventions for people who are incarcerated.^{48,49} Trauma-informed programs such as Seeking Safety; Trauma Affect Regulation: Guide for Education and Therapy (TARGET); Trauma, Addictions, Mental health And Recovery (TAMAR) Trauma Treatment Group Model; and cognitive-behavioral interventions for incarcerated persons with PTSD and substance abuse problems reduce recidivism, drug and alcohol use, mental health and trauma symptoms, and aggressive behaviors.^{48–52}

Mentorship significantly moderated the relation between trauma and CJI. The findings suggest that support from outside of the family system may offer important protective effects on later CJI among those who have experienced a prior traumatic experience, highlighting a potential intervention pathway for children at highest risk of CJI. These results are supported by previous research on the positive effects of mentorship programs on children at risk for CJI; for example, Big Brothers Big Sisters mentorship programs significantly reduce drug/alcohol use, physical fights, relationship problems with family and peers, and truancy in a sample of children, many of whom had experienced childhood traumas.^{53–58} Based on the current findings, an expansion of these types of programs are may be important for promoting support and preventing CJI for those with a history of trauma. For those who are already involved in the CJ system, expansion of these programs in that setting may help divert individuals from the system and potentially prevent recidivism.

An important limitation of the present study is the retrospective nature of assessing many trauma exposures (e.g., use of data from Waves III and IV). An additional limitation is the somewhat sparse information available about the mentorship experience, which may have led to misclassification. For example, the survey asks the respondent to indicate how close he or she feels to the mentor currently. The respondent may have felt very close to the mentor previously, which may have been critical to reducing CJI, but if he/she is no longer close to the mentor, this protective effect of mentorship would not be captured. Finally, as in any study that relies on self-reported data of sensitive topics, the study is vulnerable to recall and social desirability bias.

Despite these limitations, this study addresses a critical gap in the field of research on the negative effects of trauma by documenting associations between trauma and delinquency and arrest/incarceration in early adolescence and into the young adult life course in a nationally representative sample. The study is also the first to highlight the important prevention pathway of social support from outside the family system to those with a history of childhood trauma. Our findings underscore the need to screen for and address prior trauma in criminal justice settings, and in general population settings (e.g., primary care, schools) for adolescents to identify and intervene in preventing delinquency and CJI. These results are promising and highlight the likely importance of mentorship for people who have experienced trauma. Future qualitative and quantitative studies should expand upon the

current finding by further exploring and describing the types of mentorship relationships that are the most protective.

Conclusions

Given the substantial number of individuals who experience arrests and incarceration, we should be focusing on (1) interventions that prevent justice involvement for those who have experienced trauma, including the promotion and availability of mentor-mentee programs and (2) promoting support for those who have experienced trauma and are already involved in the criminal justice-system. The well-documented, deleterious effects of trauma on CJI have been well-studied; future research should continue to explore protective influences that may mediate this relation, including expanding upon the current findings on mentorship, for children who have been exposed to the harmful effects of trauma.

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References

1. Jacobson J, Heard C, Fair H. Prison: evidence of its use and over-use from around the world. 2017.
2. McCollister KE, French MT, Fang H. (2010). The cost of crime to society: new crime-specific estimates for policy and program evaluation. *Drug Alcohol Depend.* 2010;108(1–2), 98–109. [PubMed: 20071107]
3. Meijers J, Harte JM, Jonker FA, Meynen G. Prison brain? Executive dysfunction in prisoners. *Front Psychol.* 2015;6. doi:10.3389/fpsyg.2015.00043.
4. Travis J, Western B, Redburn FS. The growth of incarceration in the United States: exploring causes and consequences. Washington, DC: National Academies Press 2014.
5. Barrett DE, Katsiyannis A. Juvenile offending and crime in early adulthood: a large sample analysis. *Journal of Child and Family Studies.* 2016;25(4), 1086–1097.
6. Murray J, Farrington DP. Risk factors for conduct disorder and delinquency: key findings from longitudinal studies. *The Canadian Journal of Psychiatry.* 2010; 55(10), 633–642. [PubMed: 20964942]
7. Cook SL, Smith SG, Tusher CP, Raiford J Self-reports of traumatic events in a random sample of incarcerated women. *Women & Criminal Justice.* 2005; 16(1–2), 107–126.
8. Harlow CW. Prior abuse reported by inmates and probationers. 1999.
9. Widom CS. Does violence beget violence? A critical examination of the literature. *Psychol Bull.* 1989;106(1), 3. [PubMed: 2667008]
10. Currie J, Tekin E. Does Child Abuse Cause Crime? 2006. doi:10.3386/w12171
11. Malvaso CG, Delfabbro P, Day A. The maltreatment–offending association: a systematic review of the methodological features of prospective and longitudinal studies. *Trauma, Violence, Abuse.* 2015;19(1):20–34. doi:10.1177/1524838015620820.

12. Mersky JP, Topitzes J, Reynolds AJ. Unsafe at any age. *J Res Crime*. 2011;49(2):295–318. doi: 10.1177/0022427811415284.
13. English DJ, Widom CS, Brandford C. Childhood victimization and delinquency, adult criminality, and violent criminal behavior: a replication and extension. *PsycEXTRA Dataset*. 2002. doi: 10.1037/e510512006-001.
14. Herrera VM, McCloskey LA. Sexual abuse, family violence, and female delinquency: findings from a longitudinal study. *Violence Vict*. 2003;18(3):319–334. doi:10.1891/vivi.2003.18.3.319. [PubMed: 12968661]
15. Baglivio MT, Epps N, Swartz K, Huq MS, Sheer A, Hardt NS. The prevalence of adverse childhood experiences (ACE) in the lives of juvenile offenders. *J Juv*. 2014;3(2), 1.
16. Dong M, Anda RF, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse Negl*. 2004;28(7):771–784. doi:10.1016/j.chiabu.2004.01.008. [PubMed: 15261471]
17. Dube SR, Felitti VJ, Dong M, Chapman DP, Giles WH, Anda RF. Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*. 2003;111(3):564–572. doi:10.1542/peds.111.3.564 [PubMed: 12612237]
18. Eitle D, Turner RJ. Exposure to community violence and young adult crime: The effects of witnessing violence, traumatic victimization, and other stressful life events. *J Res Crime Delinq*. 2002;39(2): 214–237. doi:10.1177/002242780203900204
19. Felitti V, Anda R, Nordenberg D. 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 Preventative Medicine*. 1998;14(4): 245–258.
20. Fox BH, Perez N, Cass E, Baglivio MT, Epps N. Trauma changes everything: examining the relationship between adverse childhood experiences and serious, violent and chronic juvenile offenders. *Child Abuse Negl*. 2015;46:163–173. doi:10.1016/j.chiabu.2015.01.011. [PubMed: 25703485]
21. Chu CM, Thomas SDM, Ng VPY. Childhood abuse and delinquency: a descriptive study of institutionalized female youth in Singapore. *Psychiatry, Psychology and Law*. 2009;16(sup1). doi: 10.1080/13218710802552971. (22)
22. Ardino V. Post-traumatic stress in antisocial youth: a multifaceted reality. *Post-Traumatic Syndromes in Childhood and Adolescence*. 2012:211–230. doi:10.1002/9780470669280.ch11.
23. Egeland B, Jacobvitz D, Sroufe LA. Breaking the cycle of abuse. *Child development*. 1988:1080–1088. [PubMed: 3168615]
24. Maschi T. Trauma and violent delinquent behavior among males: The moderating role of social support. *Stress, Trauma, and Crisis*. 2006;9(1): 45–72. doi:10.1080/15434610500506233
25. Taussig HN. Risk behaviors in maltreated youth placed in foster care: a longitudinal study of protective and vulnerability factors. *Child Abuse Negl*. 2002;26(11): 1179–1199 [PubMed: 12398855]
26. Feldman BJ, Conger RD, Burzette RG. Traumatic events, psychiatric disorders, and pathways of risk and resilience during the transition to adulthood. *Res Hum Dev*. 2004;1(4): 259–290. doi:10.1207/s15427617rhd0104_3
27. White HR. Substance use and crime In: Sher KJ, ed. *The Oxford handbook of substance use and substance use disorders*. Vol. 2 New York, NY: Oxford University Press; 2016:347–378.
28. Torrey EF, Kennard AD, Eslinger D, Lamb R, Pavle J. More mentally ill persons are in jails and prisons than hospitals: a survey of the states. Arlington, VA: Treatment Advocacy Center 2010:1–18.
29. Johnson LD. The politics of the bail system: what's the price for freedom. *The Scholar*. 2015;17: 171.
30. Jenkins M. Poverty is the new crime. *DePaul Journal for Social Justice*. 2017;10,1.
31. Bruster BE, Foreman K. Mentoring children of prisoners: program evaluation. *Soc Work in Public Health*. 2012;27(1–2): 3–11. [PubMed: 22239375]
32. Laakso J, Nygaard J. Children of incarcerated parents: How a mentoring program can make a difference. *Soc Work in Public Health*. 2012;27(1–2): 12–28. [PubMed: 22239376]

33. Lopez C, Bhat CS. Supporting students with incarcerated parents in schools: a group intervention. *J Spec Gr Work*. 2007;32(2):139–153. doi:10.1080/01933920701227125.
34. Harris KM, Halpern CT, Whitsel E, Hussey J, Tabor J, Entzel P, Udry JR. The national longitudinal study of adolescent to adult health: Research design. 2009.
35. Chen P, Chantala K. Guidelines for analyzing Add Health data. Carolina Population Center University of North Carolina at Chapel Hill 2014.
36. Dube SR, Anda RF, Felitti VJ, Chapman DP, Williamson DF, Giles WH. Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the adverse childhood experiences study. *JAMA*. 2001;286(24): 3089–3096. [PubMed: 11754674]
37. Hillis SD, Anda RF, Felitti VJ, Nordenberg D, Marchbanks PA. Adverse childhood experiences and sexually transmitted diseases in men and women: a retrospective study. *Pediatrics*. 2000;106(1): e11.
38. Fletcher JM. Childhood mistreatment and adolescent and young adult depression. *Social Science & Medicine*. 2009;68(5):799–806. doi:10.1016/j.socscimed.2008.12.005. [PubMed: 19155114]
39. McLaughlin KA, Hatzenbuehler ML, Xuan Z, Conron KJ. Disproportionate exposure to early-life adversity and sexual orientation disparities in psychiatric morbidity. *Child Abuse Negl*. 2012;36(9):645–655. doi:10.1016/j.chiabu.2012.07.004. [PubMed: 22964371]
40. Shin SH, Miller DP. A longitudinal examination of childhood maltreatment and adolescent obesity: results from the National Longitudinal Study of Adolescent Health (AddHealth) Study. *Child Abuse Negl*. 2012;36(2):84–94. doi:10.1016/j.chiabu.2011.08.007. [PubMed: 22398304]
41. Substance Abuse and Mental Health Services Administration. Binge drinking: terminology and patterns of use. 2016.
42. Aalsma MC, Tong Y, Wiehe SE, Tu W (2010). The impact of delinquency on young adult sexual risk behaviors and sexually transmitted infections. *J Adolesc Health*. 2010;46(1): 17–24. [PubMed: 20123253]
43. Erickson LD, Phillips JW. The effect of religious-based mentoring on educational attainment: More than just a spiritual high? *Journal for the Scientific Study of Religion*. 2012; 51(3): 568–587.
44. Erickson LD, McDonald S, Elder GH Jr. Informal mentors and education: Complementary or compensatory resources? *Sociology of Education*. 2009; 82(4): 344–367. [PubMed: 21912440]
45. SAS Institute. SAS 9.4 for windows. 2012.
46. Heck C, Walsh A. The effects of maltreatment and family structure on minor and serious delinquency. *Int J Offender Ther*. 2000;44(2):178–193. doi:10.1177/0306624x00442004.
47. Wolpaw J, Ford J. Assessing exposure to psychological trauma and post-traumatic stress in the juvenile justice population. Los Angeles, CA: National Child Traumatic Stress 2004. doi:10.1037/e733752011-001.
48. Miller NA, Najavits LM. Creating trauma-informed correctional care: a balance of goals and environment. *Eur J Psychotraumatol*. 2012;3(1):17246. doi:10.3402/ejpt.v3i0.17246.
49. Morrissey JP, Jackson EW, Ellis AR, Amaro H, Brown VB, Najavits LM. Twelve-month outcomes of trauma-informed interventions for women with co-occurring disorders. *Psychiatric Serv*. 2005;56(10):1213–1222. doi:10.1176/appi.ps.56.10.1213.
50. Jennings A Models for developing trauma-informed behavioral health systems and trauma specific services. Alexandria, VA: National Association of State Mental Health Program Directors, National Technical Assistance Center for State Mental Health Planning 2004.
51. Lynch SM, Heath NM, Mathews KC, Cepeda GJ. Seeking safety: an intervention for trauma-exposed incarcerated women? *J Trauma Dissociation*. 2012;13(1):88–101. doi: 10.1080/15299732.2011.608780. [PubMed: 22211443]
52. Marrow MT, Knudsen KJ, Olafson E, Bucher SE. The value of implementing TARGET within a trauma-informed juvenile justice setting. *J Child Adolesc Trauma*. 2012;5(3):257–270. doi: 10.1080/19361521.2012.697105.
53. Grossman JB, Garry EM. Mentoring: a proven delinquency prevention strategy. U.S. Department of Justice. 4 1997. doi:10.1037/e302022003-001.
54. Grossman JB, Tierney JP. Does mentoring work? *Evaluation Review*. 1998;22(3):403–426. doi: 10.1177/0193841x9802200304.

55. Herrera C, Grossman J, Kauh T. Mentoring in schools: an impact study of Big Brothers Big Sisters school-based mentoring. *Child*. 2011.
56. Shlafer RJ, Poehlmann J, Coffino B, Hanneman A. Mentoring children with incarcerated parents: implications for research, practice, and policy. *Fam Relat*. 2009;58(5):507–519. doi:10.1111/j.1741-3729.2009.00571.x. [PubMed: 20657746]
57. Southwick SM, Morgan CA, Vythilingam M, Charney D. Mentors enhance resilience in at risk children and adolescents. *Psychoanalytic Inquiry*. 2007;26(4):577–584. doi:10.1080/07351690701310631.
58. Tierney JP, Grossman JB, Resch NL. Making a difference. An impact study of Big Brothers/Big Sisters. Philadelphia, PA: Public/Private Ventures. 11 1995.

Clinical Points

- There is a limited understanding of protective factors that can buffer the relation between trauma and criminal justice involvement.
- Mentorship appears to be a potential pathway for intervention in preventing criminal justice involvement for those with a history of trauma.

Table 1.

Sample Characteristics and Associations with History of Incarceration

	N (%) in Total Sample	N (%) with History of Incarceration	Odds Ratio (95% CI) for Association with History of Incarceration
Age at Wave I			
11–14	4548 (37.0)	659 (16.1)	Ref
15–17	4723 (38.4)	677 (15.2)	0.94 (0.78–1.13)
18	3012 (24.5)	455 (15.8)	0.98 (0.79–1.23)
Race			
White	6597 (65.6)	886 (14.1)	Ref
Black	2609 (16.0)	450 (19.5)	1.47 (1.13–1.91)
Hispanic	1913 (11.9)	305 (19.9)	1.51 (1.14–2.00)
Other	1162 (6.5)	150 (15.4)	1.11 (0.77–1.60)
Sex			
female	6684 (49.4)	504 (7.5)	Ref
Male	5604 (50.6)	1287 (23.8)	3.85 (3.31–4.48)
Concern about Ability to Pay Housing/Utility Bills at Wave I			
No	8570 (83.0)	1187 (14.4)	Ref
Yes	1849 (17.0)	317 (20.3)	1.51 (1.20–1.89)
Concern about Ability to Pay Housing/Utility Bills at Wave IV			
No	10165 (82.3)	1313 (14.0)	Ref
Yes	2116 (17.7)	475 (23.9)	1.48 (1.18–86)
Education			
Less than High School	896 (8.5)	323 (38.4)	Ref
High School	1934 (17.5)	440 (23.5)	0.49 (0.38–0.65)
Greater than High School	9458 (74.0)	1028 (11.3)	0.21 (0.17–0.25)

Table 2.

Delinquency

	Adolescence			Adulthood		
	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)
Neglect No Yes	68.7 78.4	Referent 1.65 (1.40–1.96)	Referent 1.46 (1.20–1.77)	12.6 15.4	Referent 1.26 (1.04–1.53)	0.96 (0.75–1.22)
Emotional Abuse No Yes	68.5 76.8	Referent 1.52 (1.30–1.78)	Referent 1.27 (1.03–1.55)	12.1 18.0	Referent 1.59 (1.33–1.90)	1.59 (1.24–2.03)
Physical Abuse No Yes	68.8 78.6	Referent 1.66 (1.37–2.02)	Referent 1.28 (1.01–1.63)	12.3 18.0	Referent 1.58 (1.31–1.90)	1.10 (0.86–1.41)
Sexual Abuse No Yes	69.6 74.7	Referent 1.29 (1.06–1.58)	Referent 1.14 (0.88–1.49)	12.4 18.8	Referent 1.64 (1.29–2.08)	1.43 (1.03–1.97)
Parental Incarceration No Yes	69.0 77.7	Referent 1.56 (1.28–1.92)	Referent 1.46 (1.13–1.90)	12.1 21.4	Referent 1.99 (1.60–2.47)	1.55 (1.19–2.03)
Parental Binge No Yes	69.5 73.6	Referent 1.22 (1.00–1.49)	Referent 1.13 (0.90–1.41)	13.0 16.8	Referent 1.35 (1.07–1.70)	1.12 (0.84–1.50)
Witness Violence No Yes	67.4 89.6	Referent 4.17 (3.27–5.31)	Referent 2.77 (2.00–3.83)	12.2 21.1	Referent 1.93 (1.60–2.33)	1.27 (0.94–1.72)
Threat w/ Violence No Yes	67.0 90.2	Referent 4.53 (3.44–5.98)	Referent 2.68 (1.99–3.60)	11.7 23.2	Referent 2.28 (1.86–2.80)	1.49 (1.09–2.03)
Experienced Violence No Yes	68.6 92.6	Referent 5.69 (3.73–8.68)	Referent 2.69 (1.55–4.69)	12.7 21.6	Referent 1.90 (1.48–2.44)	0.94 (0.63–1.40)
Number of Traumas None One Two Three Four Five or More	61.5 73.3 81.8 82.7 87.4 91.5	1.53 (1.43–1.64) Referent 1.72 (1.48–2.00) 2.81 (2.26–3.49) 3.00 (2.24–4.00) 4.36 (2.73–6.97) 6.70 (2.47–18.18)	1.50 (1.40–1.61) Referent 1.68 (1.44–1.97) 2.77 (2.21–3.46) 2.77 (2.01–3.69) 4.31 (2.69–6.92) 5.68 (2.11–15.28)	9.1 14.1 16.5 20.1 25.9 27.3	1.34 (1.26–1.42) Referent 1.64 (1.35–1.99) 1.97 (1.52–2.56) 2.51 (1.81–3.49) 3.49 (2.39–5.10) 3.75 (2.21–6.39)	1.28 (1.20–1.37) Referent 1.54 (1.25–1.90) 1.81 (1.39–2.36) 2.13 (1.50–3.03) 3.35 (2.26–4.97) 2.81 (1.56–5.05)

Adolescent model adjusted for age, race, sex, poverty at Wave I; adulthood model adjusted for age, race, sex, poverty at Wave I and IV, and education.

Table 3.

Arrest

	Arrested before the Age of 18			Arrested after the Age of 18			Frequent Arrest in Lifetime		
	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)
Neglect No Yes	4.6 8.0	Referent 1.79 (1.32–2.43)	Referent 1.12 (0.72–1.73)	12.7 21.1	Referent 1.84 (1.59–2.13)	Referent 1.67 (1.36–2.06)	4.1 7.7	Referent 1.96 (1.44–2.66)	Referent 1.24 (0.83–1.85)
Emotional Abuse No Yes	4.8 7.5	Referent 1.63 (1.20–2.23)	Referent 1.36 (0.86–2.15)	13.5 16.5	Referent 1.26 (1.03–1.55)	Referent 1.15 (0.85–1.56)	4.2 6.4	Referent 1.54 (1.10–2.16)	Referent 1.13 (0.76–1.68)
Physical Abuse No Yes	4.3 9.4	Referent 2.30 (1.74–3.04)	Referent 1.49 (1.02–2.18)	12.5 21.8	Referent 1.95 (1.59–2.38)	Referent 1.53 (1.20–1.95)	3.8 9.0	Referent 2.51 (1.85–3.41)	Referent 1.60 (1.13–2.28)
Sexual Abuse No Yes	4.7 8.2	Referent 1.82 (1.24–2.69)	Referent 1.82 (1.10–3.00)	13.2 19.6	Referent 1.60 (1.21–2.11)	Referent 1.29 (0.93–1.79)	4.1 8.4	Referent 2.15 (1.49–3.08)	Referent 2.31 (1.52–3.52)
Parental Incarceration No Yes	4.2 12.7	Referent 3.32 (2.44–4.53)	Referent 2.69 (1.82–3.99)	12.2 28.3	Referent 2.82 (2.32–3.44)	Referent 2.28 (1.76–2.96)	3.8 11.5	Referent 3.32 (2.44–4.52)	Referent 2.46 (1.66–3.66)
Parental Binge No Yes	4.7 8.0	Referent 1.78 (1.34–2.36)	Referent 1.44 (1.01–2.07)	13.4 18.0	Referent 1.42 (1.14–1.78)	Referent 1.10 (0.85–1.43)	4.1 7.7	Referent 1.94 (1.45–2.59)	Referent 1.80 (1.24–2.62)
Witness Violence No Yes	4.0 14.5	Referent 4.04 (3.18–5.14)	Referent 2.28 (1.44–3.62)	12.1 29.4	Referent 3.03 (2.54–3.60)	Referent 2.00 (1.51–2.66)	3.7 12.5	Referent 3.71 (2.81–4.88)	Referent 1.81 (1.18–2.77)
Threat w/ Violence No Yes	3.8 15.0	Referent 4.50 (3.44–5.90)	Referent 2.19 (1.47–3.26)	11.8 30.4	Referent 3.28 (2.66–4.05)	Referent 1.62 (1.23–2.13)	3.3 14.5	Referent 4.98 (3.66–6.77)	Referent 2.19 (1.32–3.64)
Experienced Violence No Yes	4.6 15.4	Referent 3.77 (2.80–5.07)	Referent 1.05 (0.62–1.78)	13.1 30.5	Referent 2.91 (2.24–3.78)	Referent 0.91 (0.60–1.38)	4.0 16.2	Referent 4.60 (3.37–6.29)	Referent 1.44 (0.80–2.60)
Number of Traumas None One Two Three Four	1.6 4.6 6.9 13.2 12.7 23.9	1.75 (1.50–1.92) Referent 2.90 (1.94–4.33) 4.41 (2.91–6.69) 9.06 (5.74–14.32) 8.69 (4.74–15.90) 18.75 (9.77–35.98)	1.74 (1.58–1.92) Referent 2.61 (1.75–3.89) 4.13 (2.67–6.39) 8.20 (5.10–13.19) 9.01 (4.87–16.66) 16.42 (8.55–31.53)	6.9 14.1 18.8 24.4 34.0 41.9	1.59 (1.49–1.70) Referent 2.23 (1.81–2.75) 3.14 (2.47–4.01) 4.36 (3.28–5.80) 6.97 (4.77–10.19) 9.77 (5.70–16.75)	1.51 (1.40–1.63) Referent 1.88 (1.50–2.36) 2.63 (1.98–3.49) 3.54 (2.57–4.87) 6.69 (4.39–10.18) 6.26 (3.47–11.30)	1.54 3.85 5.93 10.26 16.81 23.42	1.80 (1.63–1.99) Referent 2.55 (1.64–3.97) 4.02 (2.59–6.24) 7.29 (4.21–12.65) 12.88 (7.46–22.25) 19.50 (10.23–37.16)	1.78 (1.61–1.97) Referent 2.29 (1.49–3.51) 3.79 (2.40–5.98) 6.45 (3.62–11.50) 13.90 (7.96–24.26) 15.47 (8.15–29.36)

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	Arrested before the Age of 18			Arrested after the Age of 18			Frequent Arrest in Lifetime		
	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)
Five +									

Adolescent and lifetime models adjusted for age, race, sex, poverty at Wave I; adulthood model adjusted for age, race, sex, poverty at Wave I and IV, and education.

Table 4.

Incarceration

	Incarcerated before the Age of 18			Incarcerated after the Age of 18			Incarcerated More than One Month in Lifetime		
	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)	% with outcome	OR (95% CI)	Adjusted OR (95% CI)
Neglect No Yes	2.5 5.6	Referent 2.33 (1.59–3.42)	Referent 1.65 (1.00–2.73)	11.9 16.4	Referent 1.45 (1.21–1.75)	Referent 1.19 (0.94–1.50)	7.0 12.5	Referent 1.89 (1.51–2.37)	Referent 1.42 (1.05–1.91)
Emotional Abuse No Yes	2.6 4.5	Referent 1.74 (1.29–2.35)	Referent 1.32 (0.84–2.07)	12.2 14.6	Referent 1.22 (1.00–1.51)	Referent 1.15 (0.87–1.53)	7.4 10.4	Referent 1.45 (1.16–1.81)	Referent 1.13 (0.81–1.57)
Physical Abuse No Yes	2.4 6.0	Referent 2.57 (1.85–3.58)	Referent 1.41 (0.90–2.23)	11.7 17.6	Referent 1.62 (1.32–1.98)	Referent 1.37 (1.02–1.84)	6.8 14.0	Referent 2.23 (1.71–2.90)	Referent 1.66 (1.08–2.53)
Sexual Abuse No Yes	2.6 4.9	Referent 1.93 (1.23–3.03)	Referent 1.63 (0.90–2.94)	12.0 19.0	Referent 1.73 (1.32–2.27)	Referent 1.54 (1.10–2.16)	7.2 12.9	Referent 1.90 (1.39–2.60)	Referent 1.96 (1.34–2.85)
Parental Incarceration No Yes	2.2 8.5	Referent 4.07 (2.82–5.88)	Referent 3.56 (2.11–6.03)	11.3 22.3	Referent 2.26 (1.85–2.76)	Referent 1.56 (1.17–2.07)	6.6 17.8	Referent 3.07 (2.39–3.95)	Referent 2.73 (1.95–3.82)
Parental Binge No Yes	2.4 4.8	Referent 2.04 (1.40–2.97)	Referent 1.76 (1.20–2.60)	11.8 16.0	Referent 1.42 (1.14–1.79)	Referent 1.23 (0.95–1.58)	7.2 11.1	Referent 1.61 (1.26–2.07)	Referent 1.57 (1.18–2.10)
Witness Violence No Yes	2.1 9.0	Referent 4.54 (3.33–6.20)	Referent 2.18 (1.38–3.45)	11.5 21.5	Referent 2.10 (1.69–2.61)	Referent 1.34 (1.01–1.77)	6.6 18.1	Referent 3.11 (2.42–4.00)	Referent 1.67 (1.14–2.45)
Threat w/ Violence No Yes	2.1 8.9	Referent 4.63 (3.21–6.68)	Referent 1.47 (0.84–2.59)	11.2 23.5	Referent 2.45 (2.00–3.00)	Referent 1.44 (1.08–1.91)	6.3 19.3	Referent 3.53 (2.74–4.56)	Referent 1.65 (1.16–2.34)
Experienced Violence No Yes	2.6 9.6	Referent 4.04 (2.74–5.98)	Referent 1.83 (1.01–3.32)	12.2 20.8	Referent 1.89 (1.40–2.56)	Referent 0.68 (0.44–1.05)	7.3 19.2	Referent 3.01 (2.31–3.92)	Referent 1.17 (0.73–1.87)
Number of Traumas None One Two Three Four Five +	0.8 1.9 4.7 8.2 6.8 18.7	1.89 (1.72–2.08) Referent 2.50 (1.41–4.43) 6.31 (3.78–10.54) 11.49 (6.32–20.87) 9.47 (4.57–19.61) 29.58 (14.26–61.33)	1.87 (1.69–2.07) Referent 2.24 (1.25–4.03) 5.95 (3.43–10.31) 10.08 (5.24–19.37) 9.71 (4.47–21.13) 25.98 (12.53–53.90)	7.1 14.1 15.5 16.1 30.4 22.2	1.39 (1.31–1.47) Referent 2.16 (1.73–2.70) 2.41 (1.94–3.00) 2.52 (1.82–3.48) 5.74 (3.90–8.45) 3.74 (2.17–6.45)	1.28 (1.20–1.36) Referent 1.84 (1.47–2.30) 1.94 (1.52–2.46) 1.82 (1.31–2.55) 4.90 (3.22–7.48) 2.18 (1.15–4.14)	2.8 8.0 10.2 15.2 23.7 25.6	1.67 (1.53–1.81) Referent 3.02 (2.07–4.42) 3.93 (2.79–5.54) 6.20 (4.10–9.38) 10.75 (6.57–17.60) 11.92 (6.43–22.10)	1.64 (1.50–1.79) Referent 2.79 (1.91–4.09) 3.69 (2.54–5.36) 5.21 (3.30–8.24) 11.80 (6.99–19.90) 9.82 (5.33–18.10)

Adolescent and lifetime models adjusted for age, race, sex, poverty at Wave I; adulthood model adjusted for age, race, sex, poverty at Wave I and IV, and education.

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Table 5.

Moderation by Mentorship Closeness

	Arrest After Age 18				Incarceration After Age 18			
	No Mentor/Not Close to Mentor		Close to Mentor		No Mentor/Not Close to Mentor		Close to Mentor	
	OR	AOR	OR	AOR	OR	AOR	OR	AOR
# of Traumas	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
None	2.03 (1.49–2.76)	1.87 (1.35–2.58)	2.55 (1.79–3.62)	2.41 (1.69–3.45)	2.16 (1.59–2.93)	1.97 (1.46–2.67)	2.16 (1.48–3.14)	2.10 (1.46–3.02)
One	3.35 (2.41–4.66)	3.27 (2.28–4.68)	2.88 (2.01–4.12)	2.65 (1.85–3.79)	2.71 (2.03–3.63)	2.53 (1.87–3.42)	2.02 (1.43–2.85)	1.90 (1.32–2.73)
Two	7.11 (5.08–9.93)	6.93 (4.80–10.02)	3.90 (2.49–6.11)	3.60 (2.27–5.71)	4.13 (2.96–5.78)	3.57 (2.51–5.10)	2.50 (1.68–3.71)	2.24 (1.48–3.37)
Three+								

Adolescent model adjusted for age, race, sex, poverty at Wave I; adulthood model adjusted for age, race, sex, poverty at Wave I and IV, and education.