

Trauma-Informed Approaches Need to be Part of a Comprehensive Strategy for Addressing the Opioid Epidemic

EXECUTIVE SUMMARY

This policy brief reviews the evidence linking trauma and adverse childhood experiences to opioid addiction. It also provides examples of effective prevention and treatment programs, and describes innovative approaches being used by communities to address the current epidemic. The argument is made that efforts to address the opioid crisis will be effective only if we acknowledge the roots of addiction and make investments in proven and promising prevention and treatment strategies.

There is now powerful evidence showing a strong correlation between opioid addiction and traumatic experiences, particularly early childhood adversity. Evidence indicates that individuals exposed to opioid misuse experience multiple negative consequences, including loss of employment, poor physical and mental health, suicidal behavior, and disrupted family and social relationships. Among those who misuse opioids, the individuals most likely to experience problems with addiction are those who suffered multiple adverse childhood experiences (ACEs). General population surveys have estimated that 75% of individuals with substance use disorders have experienced trauma at some point in their lives;¹ rates are even higher among populations seeking treatment for opioid addiction.² It is the premise of this paper that to be effective, a strategy to address the opioid epidemic must recognize the role that trauma and ACEs play in addiction, and must incorporate trauma-informed prevention and treatment in a significant way.

The 1998 Adverse Childhood Experience (ACE) Study by Kaiser Permanente and the Centers for Disease Control demonstrated a powerful correlation between multiple adverse childhood experiences (including child sexual, physical and emotional abuse; neglect; spousal abuse; parental incarceration; and others) and substance abuse during adulthood.³ While much is

yet to be learned about the specific developmental pathways and predictor variables of opioid addiction, programs that reflect the needs of people who have suffered from traumatic experiences must be part of any comprehensive strategy to attack the opioid epidemic. Fortunately, we have a substantial evidence base of programs that can help reduce childhood adversity in the next generation and build resilience and support recovery among those already addicted.

To date, few strategy discussions on ways to combat the opioid epidemic have addressed the role of ACEs in creating the foundation for addiction. Nor have they considered the importance of trauma-informed approaches to addiction prevention and treatment. The purpose of this paper is to change that situation by reviewing: (1) evidence showing a correlation between traumatic experiences, particularly in childhood, and opioid addiction, (2) evidence-based, trauma-informed programs available to prevent addiction in future generations; and (3) evidence-based addiction treatment programs. The Campaign for Trauma-Informed Policy and Practice (CTIPP) urges those involved in developing responses to opioid addiction to incorporate a trauma-informed component into their strategy. It will never be possible to completely shut off the supply of drugs or to improve the economy so that job loss does not occur in some sectors. Research

1 Mills, K.L., Lynskey, M., Teeson, M., et al (2005) Post-traumatic stress disorder among people with heroin dependence in the Australian treatment study (ATOS): Prevalence and correlates. *Drug and Alcohol Dependence*, 77, 243-249.

2 Mills, K.L., Teeson, M., Ross, J., et al (2006) The costs and outcomes of treatment for opioid dependence associated with post-traumatic stress disorder. *Psychiatric Services*, 56(8), 940-945.

3 <https://www.cdc.gov/violenceprevention/acesstudy/>

indicates that the most effective way to prevent and treat opioid addiction is to begin by understanding its origin in adverse childhood experiences.

THE CORRELATION BETWEEN TRAUMA AND OPIOID ADDICTION

The 1998 ACE study by Kaiser Permanente and the CDC found that persons who suffered three or more adverse childhood experiences had a much greater likelihood of engaging in substance abuse, domestic violence and suicide attempts, and were more likely to have dropped out of school, to be divorced, and to have diabetes, obesity, cancer and heart disease. The findings on substance abuse were particularly powerful. As the author noted: "... [W]e found that the compulsive use of nicotine, alcohol and injected street drugs increases proportionally in a strong, graded, dose response manner that closely parallels the intensity of adverse life experiences during childhood."⁴

More recent studies have shown a specific correlation between ACEs and opioid addiction. For example, a 2016 study demonstrated a clear dose response relationship between the number of traumatic experiences and increased risk of prescription drug misuse in adults. Individuals who reported five or more ACEs were three times more likely to misuse prescription pain medication and 5 times more likely to engage in injection drug use.⁵ Another study found that over 80% of the patients seeking treatment for opioid addiction had at least one form of childhood trauma, with almost two-thirds reporting having witnessed violence in childhood.⁶ Among the different forms of adverse childhood experiences, sexual abuse and parental separation (for women) and physical and emotional abuse (for men) appear to be particularly highly correlated with opioid abuse.⁷ In one study, although childhood trauma alone did not predispose

the development of opioid addiction, individuals with high childhood trauma scores were more likely to display antisocial behavior and to have complicated addiction histories.⁸

In addition, studies have shown that individuals who have experienced childhood trauma are more likely to report chronic pain symptoms that interfere with daily activities and are more likely to be prescribed multiple prescription medications making them more likely to seek opioids for pain relief in adulthood⁹ and creating a likely pathway to addiction. Similarly, Veterans of the wars in Iraq and Afghanistan who are diagnosed with PTSD are significantly more likely to receive opioids for pain, to receive multiple and higher doses, and to experience adverse clinical outcomes than those without PTSD.¹⁰ Diagnosed opioid abuse prevalence is almost seven times higher in the Veteran's Administration population than in commercial health plans, which translates to a significant economic burden on the VA.¹¹

USING TRAUMA-INFORMED APPROACHES TO PREVENT AND TREAT OPIOID ADDICTION

There are at least two ways in which the knowledge of the correlation between ACEs and opioid addiction can be put to work. The first is through programs to prevent exposure to trauma (primary prevention) and to promote resilience in groups put at risk by exposure to adversity (secondary prevention). Prevention programs help to ensure that the next generation does not abuse substances when they become adults, which is particularly important in communities devastated by addiction. The second strategy is to use trauma-informed treatment approaches to help existing addicts recover and return to productive lives. Both approaches, prevention and treatment, need to be part of a comprehensive plan to address opioid addiction.

4 Felitti, V.J. (2003) The origins of addiction: Evidence from the Adverse Childhood Experiences study. *Praxis der Kinderpsychologie und Kinderpsychiatrie*, 52, 547 – 559.

5 Quinn, K., Boone, L., Scheidell, J.D., Mateau-Gelabert, P., Mcgorray, S.Sp., Beharie, N., Cottler, L.B, and Kahn, M.R (2016) The relationship of childhood trauma and adult prescription pain reliever misuse and injection drug use. *Drug and Alcohol Dependence*, 169, 190-198.

6 Sansone, R.A., Whitecar, P., and Wiederman, M.W. (2009) The prevalence of childhood trauma among those seeking buprenorphine treatment. *Journal of Addictive Diseases*, 28(1), 64-67.

7 Conroy, E., Degenhardt, L., Mattick, R.P and Nelson, E.C. (2009) Child maltreatment as a risk factor for opioid dependence: Comparison of family characteristics and type and severity of child maltreatment with a matched control group. *Child Abuse and Neglect*, 33(6), 343-352.

8 Davids, E., Hartwid, U., Specka, M., Gastpar, M., and Scherbaum, N. (2006) Childhood trauma and later opioid dependence. *Krankenhauspsychiatrie*, 17(3), 92-95.

9 Finestone, H.M., Stenn, P., Devies, F., Stalker, C., Fry, R., Koumanis, J. (2000) Chronic pain and healthcare utilization in women with a history of childhood sexual abuse. *Child Abuse and Neglect*, 24, 547 – 556; Davis, D.A., Luecken, L.J., & Zautra, A.J. (2005) Are reports of childhood abuse related to the experience of chronic pain in adulthood? A meta-analytic review of the literature. *Clinical Journal of Pain*, 21(5), 398-405; Sachs-Ericsson, N., Kendall-Tackett, K., & Hernandez, A. (2007) Child abuse, chronic pain, and depression in the National Comorbidity Study. *Child Abuse & Neglect: The International Journal*, 31(5), 531-547; Anda, R.F. Brown, D.W., Felitti, V.J., Dube, S.R. & Giles, W.H. (2008). Adverse childhood experiences and prescription drug use in a cohort study of adult HMO patients. *BMC Public Health*, 8(198), 1-9.

10 Seal, K.H., Shi, Y., Cohen, G., Cohen, B.E., et al (2012) Association of mental health disorders with prescription opioids and high-risk opioid use in US veterans of Iraq and Afghanistan. *Journal of the American Medical Association*, 307(9), 940-947.

11 Baser, O., Xie, L., Mardekian, J., Schaaf, D., Wang, L. and Joshi, A. V. (2014), Prevalence of Diagnosed Opioid Abuse and its Economic Burden in the Veterans Health Administration. *Pain Pract*, 14: 437-445. doi:10.1111/papr.12097

PREVENTION STRATEGIES

Maurice Richards, Chief of Police in Martinsburg, West Virginia, a community hard hit by the opioid epidemic, believes we need to increase our focus on prevention. In material to inform the Martinsburg community about the “Martinsburg Initiative” the Police Department and the County Schools created to prevent addiction in the next generation, he stated: “Prevention is the single most effective long-term solution to drug addiction (because) if we do not reduce the demand for drugs we will never reduce the supply.”¹²

Prevention is also evidence-based. The Surgeon General's recent report *Facing Addiction in America*,¹³ concluded that science strongly supports the possibility of preventing addiction. As noted above, reducing exposure to adverse childhood experiences would dramatically decrease risk for addiction (as well as a large number of other health and mental health problems). Moreover, there already exist numerous effective preventive interventions for reducing the level of exposure to adversity and for strengthening resilience to adverse circumstances. Some of the best studied prevention programs include:

Home Visiting Programs, where a trained home visitor provides services to pregnant women and families with young children, have proven effective at reducing child abuse, neglect, and domestic violence and improving health outcomes for children and parents. One such program is the Nurse Family Partnership (NFP), which has been shown in experimental trials to reduce state

verified rates of abuse and neglect by 48%,¹⁴ reduce emergency room visits by 56%,¹⁵ and produce a 79% reduction in the number of days that children were hospitalized with injuries and ingestions during the first two years of life.¹⁶ A number of other long term benefits are linked to the NFP including improved maternal life course and infant school readiness.¹⁷

The Positive Parenting (Triple P) Program is an intervention that provides parents with tools to raise healthier children and deal with stressors. Triple P was demonstrated in an experimental trial to reduce the rates of child maltreatment in the counties in which it was implemented relative to control counties by over 20% while it also decreased out of home placements

and childhood injuries.¹⁸

Parent Child Interaction Therapy is a tool that assists parents in improving the quality of the parent-child interaction and relationship. It was shown in an experimental trial to reduce reported child abuse in participants (19% reported abuse) versus individuals in the control conditions (49% reported abuse) at a median follow-up of up of 850 days.¹⁹

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A number of communities are implementing innovative approaches to prevent addiction in the next generation. For example, in Martinsburg, W.V., the police department and the school district have created an ACE-based, multidimensional partnership that is strengthening families and empowering communities in order to “provide the long-term solution to opioid abuse and addiction.” The police and the schools have a unique connection with families and at-risk children, and are using that connection to prevent ACEs and

12 See “*The Martinsburg Initiative*” a unique police-school-community partnership. at Martinsburgpd.org.

13 U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. Washington, DC: HHS, November 2016.

14 Olds D, Eckenrode J, Henderson C, Kitzman H, Powers, J, Cole R, Sidora K, Morris P, Pettitt L, Luckey D. (1997) Long-term effects of home visitation on maternal life course and child abuse and neglect: a 15-year follow-up of a randomized trial. *JAMA*, 278(8), 637-643.

15 Olds DL, Henderson CR Jr., Chamberlin R, Tatelbaum R. (1986) Preventing child abuse and neglect: a randomized trial of nurse home visitation. *Pediatrics*, 78(1), 65-78.

16 Kitzman H, Olds DL, Henderson CR Jr., Hanks C, Cole R, Tatelbaum R, McConnochie KM, Sidora K, Luckey DW, Shaver D, Engelhardt K, James D, Barnard K. (1997) Effect of prenatal and infancy home visitation by nurses on pregnancy outcomes, childhood injuries, and repeated childbearing: a randomized controlled trial. *JAMA*, 278(8), 644-652.

17 <http://www.nursefamilypartnership.org/proven-results>

18 Prinz, R.J., Sanders, M.R., Shapiro, C.J., Whitaker, D.J. & Lutzker, J.R. (2009). Population-based prevention of child maltreatment: The U.S. Triple P System population trial. *Prevention Science*, 10, 1-12.

19 Chaffin, M., Silovsky, J.F., Funderburk, B., Valle, L.A., Brestan, E.V., Balachova, T., Jackson, S., Lensgraf, J., & Bonner, B.L. (2004). Parent-Child Interaction Therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology*, 72(3), 500-510

to provide support and teach resilience to students already subjected to multiple ACEs, catching the problem before it becomes destructive.²⁰

Similarly, the State of Tennessee, a state hard-hit by the opioid epidemic, has launched an ACE-based initiative to revise all child-serving state programs and policies to focus on prevention of childhood trauma. The effort is expected to avoid significant costs to children and families, taxpayers and the community. It costs almost \$200,000 to house a juvenile in custody and \$40,000-\$50,000 to house an adult who is in custody because of addiction, while programs to prevent the child from being subjected to adversity cost just a fraction of that amount.²¹

TRAUMA-BASED TREATMENT FOR OPIOID ADDICTION

Treatment providers have long understood that childhood trauma contributes to adult substance use and increased risk of severe trauma for the children of addicted parents, and that addiction treatment should address these issues.²² A 2007 Substance Abuse, Mental Health and Services Administration (SAMHSA) five-year, ten-site outcome study of women with histories of violence and co-occurring mental health and substance use disorders showed that approaches that included trauma (rather than just mental health and addiction) were more helpful than programs treating them separately.²³

More recently, a number of studies have evaluated trauma-informed approaches to treat addiction, including opioid addiction. The program that has been most extensively implemented and evaluated is *Seeking Safety*, an approach developed by Dr. Lisa Najavits. Seeking Safety is a coping skills approach that addresses trauma-related problems and substance use at the same time. It was identified as having the highest level of evidence by the International Society for Traumatic Stress Studies,²⁴ is the only model developed thus far that has outperformed a control or comparison on both trauma symptoms and substance abuse, and is the most evidence-based model for people with both trauma and addiction. Seeking Safety can be delivered by peers as well as by counselors or other professionals. A recent randomized controlled

trial found that both peers and professionals produced positive outcomes on both trauma problems and addiction, with no difference between peers and professionals.²⁵ Seeking Safety is also the lowest-cost evidence-based model available for trauma and addiction, and has shown especially strong results for heavy drug users.

Seeking Safety provides education and coping skills to help clients attain safety from trauma and addiction. It was designed for flexible use: group or individual format; males and females; all levels of care (e.g., outpatient, inpatient, residential); all types of trauma and substances; and has been studied in both adults and adolescents. It covers issues such as safety, help-seeking, setting boundaries, emotional regulation, re-traumatization, self-care and recovery. Seeking Safety builds hope and uses simple, emotionally engaging language. It has been translated into 12 languages and can be used with people who are illiterate or have cognitive impairment as well.

Dr. Stephanie Covington has developed several evidence-based, gender-responsive programs of varying lengths: *Helping Women Recover*, *Beyond Trauma*, and *Beyond Violence*. The two newest interventions are *Healing Trauma: A Brief Intervention for Women* and *Exploring Trauma: A Brief Intervention for Men*. All of the programs incorporate knowledge about gender differences in risks of and responses to trauma. Treatment strategies include approaches effective for treating trauma and substance use disorders: cognitive-behavioral, mindfulness, body-oriented (i.e., yoga), and expressive arts. Peer facilitation has produced positive outcomes with *Beyond Violence*, *Healing Trauma*, and *Exploring Trauma*.²⁶ Other substance abuse treatment programs addressing trauma listed in SAMHSA's National Registry of Evidence-Based Programs and Practice (NREPP)²⁷ include: A Women's Path to Recovery, Mind-Body Bridging Substance Abuse Program, and Sobriety Treatment and Recovery Teams.

Some of the evidence introduced into the opioid policy discussion is anecdotal, but still very powerful. For example, at a U.S. Senate briefing of Senate staff

20 For more information go to: www.MartinsburgPD.org/martinsburg-initiative

21 Fang, X., Brown, D. S., Florence, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child abuse & neglect*, 36(2), 156-165.

22 Substance Abuse Treatment for Persons with Child Abuse and Neglect Issues. Treatment Improvement Protocol (TIP) Series, No. 36. Center for Substance Abuse Treatment. Rockville (MD): Substance Abuse and Mental Health Services Administration (US); 2000. Report No.: (SMA) 00-3357

23 <https://www.samhsa.gov/sites/default/files/wcdvs-bibliography.pdf>

24 See www.seekingsafety.org

25 Crisanti et al. (in preparation) Peer versus clinician-led Seeking Safety.

26 Covington, S.S., Burke, C., Keaton, S., and Norcott, C. (2008) Evaluation of a trauma-informed and gender-responsive intervention for women in drug treatment. *Journal of Psychoactive Drugs, SARC Supplement 5*, 387-398. Additional research articles are available online at www.stephaniecovington.com and www.centerforgenderandjustice.org

27 See <http://nrepp.samhsa.gov/landing.aspx>

on ACEs and trauma-informed approaches, Judge Dan Michael of the Memphis/Shelby County Juvenile Court told dramatically contrasting stories of two young people with traumatic childhoods and who had both committed serious crimes—one had a bad (and expensive) outcome while the other was a “success story.” The first was a severely abused child who did not receive treatment, and was jailed and will remain there for many years. The second child received cognitive behavioral therapy and social supports at a crucial time during rapid brain development, according to Michael. She is now a straight-A student and will be paying taxes rather than being incarcerated at a cost of \$40,000 a year.²⁸

Another anecdote comes from Dr. Daniel Sumrock, a Tennessee physician who has treated over 1200 individuals in his addiction clinic.

Using the Kaiser-CDC survey for ACEs, he found that over 1100 had four or more ACEs. According to a recent article: *“Dr. Sumrock has pieced together the ingredients for a revolutionary approach to addiction. It is an approach that’s advocated by many of the leading thinkers in addiction and trauma, including Drs. Gabor Mate, Lance Dodes and Bessel van der Kolk. Surprisingly it is a fairly simple formula: Treat people with respect instead of blaming or shaming them. Listen intently to what they have to say. Integrate the healing traditions of the culture in which they live. Use prescription drugs, if necessary. And integrate adverse childhood experience science: ACEs.”*²⁹

While this approach may seem like common sense, it is “revolutionary” in a society that stigmatizes addiction³⁰

and is still largely in denial about the role that violence, trauma and adversity play in the development of substance use disorders.

POLICY IMPLICATIONS

The evidence is clear: (1) there is a strong correlation between traumatic experiences, particularly in childhood (ACEs), and opioid addiction; (2) there are programs available (and being used right now) that can reduce traumatic exposure and build resilience; and (3) for those needing treatment for

opioid addiction, trauma-informed interventions are effective. It is way past time to begin applying this evidence to our policies and practices for addressing the opioid addiction epidemic in this country.

The first thing to recognize is that traumatic experiences

are pervasive. Traumatic events are common across the lifespan, with estimates of lifetime prevalence of 60.7% for men and 51.2% for women.³¹ Almost 90% of respondents to the National Stressful Events Survey reported exposure to at least one traumatic event; 30% reported six event types.³² Reducing the overall level of violence and trauma across the lifespan and ensuring that every child grows up in a safe and nurturing environment would begin to reduce the risk factors for addiction.

We also need to ensure that the basic building blocks for resilience are in place in every community, and that access to effective treatment is universally available. All forms of health insurance should cover evidence-based, trauma-informed addiction treatment and prevention programs. Public insurance programs,

While this approach may seem like common sense, it is revolutionary in a society that is still largely in denial about the role that violence, trauma and adversity play in the development of substance use disorders.

28 <http://www.acesconnection.com/blog/congressional-briefing-addresses-trauma-in-an-ever-changing-political-and-policy-environment>

29 Stevens, J. (May 2, 2017) Substance abuse doc says: stop chasing the drug! Focus on ACEs. Retrieved from <http://www.acesconnection.com/blog/substance-abuse-doc-says-stop-chasing-the-drug-and-focus-on-the-aces> See also, Addiction, trauma, and Adverse Childhood Experiences –the Neuroscience behind developmental/Attachment trauma and Adverse Childhood Experiences, (August 1, 2016) Retrieved from <http://adversechildhoodexperiences.kajabi.com/sp/40006-aces-study-on-dvd>

30 Merrill, J.E. and Monti, P.M. (2015) Influencers of the stigma complex toward substance use and substance use disorders. Retrieved from http://sites.nationalacademies.org/cs/groups/dbassesite/documents/webpage/dbasse_170043.pdf

31 Kessler R. C., Sonnega A., Bromet E., Hughes M., & Nelson C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*, 52(12), 1048-1060

32 Kilpatrick D. G., Resnick, H. S., Milanak, M. E., Miller, M. W., Keyes, K. M. and Friedman, M. J. (2013). National estimates of exposure to traumatic events and PTSD prevalence use DSM-IV and DSM-5 criteria. *Journal of Traumatic Stress*, 26, 537-547.

such as Medicaid, should prioritize these types of addiction treatments.

At the state and local levels, more communities need to follow the lead of Kansas City, St. Louis, Philadelphia, Tarpon Springs Florida, Camden N.J., Buncombe County N.C., the States of Tennessee and Oregon, the Menominee Tribe of Wisconsin, and many others that, recognizing that no single institution in the community can, by itself, effectively address the causes and effects of childhood adversity, are creating broad coalitions that bring together the many different institutions in their community – the schools, law enforcement, health and mental health, businesses, the courts, and others -- to develop and implement comprehensive community-wide trauma-informed initiatives.³³

The current efforts to address the opioid crisis will only be as effective as our ability to provide treatment that acknowledges the roots of addiction and make investments in both proven and promising prevention and treatment strategies. As our failed efforts to reduce

other forms of illegal drugs in this country teach us, we will never succeed in reducing the availability of opioids until we reduce the demand. Efforts to prevent and treat opioid addiction that fail to acknowledge what the studies cited above show will spend a great deal of money and produce inadequate results. It is time to apply what neuroscience and social science have taught us about the implications of trauma and childhood adversity for opioid addiction so that our money, energy and resources are spent effectively.

Finally, the role that ACEs play in opioid addiction, as set out in this paper, in no way diminishes the importance of the many other steps being taken to address the opioid epidemic. Rather, it adds another tool in that fight. Further, nothing in this paper provides a defense for persons or organizations who may be legally liable for improperly distributing or dispensing opioid pills. To the contrary, the paper shows that those most susceptible to such behavior are among the most vulnerable in our society because of the abuse they suffered as children.

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³³ <https://store.samhsa.gov/product/Spotlight-Building-Resilient-and-Trauma-Informed-Communities-Introduction/SMA17-5014>