Trauma-Informed Care in Behavioral Health: *What is the Evidence?*

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"Healing is a matter of time, but it is sometimes also a matter of opportunity." – Hippocrates

"Our sorrows and wounds are healed only when we touch them with compassion." – Buddha

Introduction

In medicine, the term "trauma" broadly refers to a wound or other injury.[1] It has long been recognized that injuries can be physical or psychological in nature. In mental health contexts, "trauma" refers to "experiences that cause intense physical and psychological stress reactions"[2] and the reactions (psychological wounds/injuries) themselves. Trauma can relate to "a single event, multiple events, or a set of circumstances that is experienced by an individual as physically and emotionally harmful or threatening and that has lasting adverse effects on the individual's physical, social, emotional, or spiritual wellbeing."[3]

Table 1. Traumatic Experiences Across the Lifespan[4]

Exposure to Organized Violence
Relief worker in a war zone
Civilian in a war zone
Civilian in region of terror
Refugee
Kidnapped
Participation in Organized Violence
Witnessed death, dead body, or serious injury
Unintentionally caused serious injury or death
Combat experience
Purposely injured, tortured, or killed someone
Witnessed atrocities
Experience/Threat of Physical Violence
Beaten up by someone else
Witnessed physical fight at home
Beaten up by caregiver
Mugged or threatened with a weapon
Experience of Sexual Violence
Raped
Sexually assaulted
Stalked
Beaten up by spouse or romantic partner
Traumatic event to loved one
Some other event
Accidents and/or Injuries
Natural disaster
Man-made disaster
Toxic chemical exposure
Automobile crash
Life-threatening illness
Child with serious illness
Other life-threatening accident
Unexpected death of loved one

Examples of Potentially Traumatic Experiences

Individuals can experience traumatic events or circumstances at any age. Across the lifespan, events and circumstances that can result in trauma include exposure to or participation in organized violence, experience of physical or sexual violence, accidents or injuries, disasters, or unexpected death of a loved one (see Table 1).[4] In childhood, additional events or adversities may be traumatic and can have a lifelong impact, including interpersonal loss, parental maladjustment, maltreatment, life threatening physical illness, or extreme economic adversity (see Table 2).[5] A subset of these, termed adverse childhood experiences (ACEs), have received particular attention. These include—before the age of 18—living with anyone who was depressed, mentally ill, or suicidal; living with anyone who was a problem drinker /alcoholic, used illegal street drugs, or abused prescription medications; living with anyone who served time or was sentenced to serve time in correctional facility; having parents who were separated or divorced; having parents or adults in the home who ever slapped, hit, kicked, punched, or beat each other up; being hit, beaten, kicked, or physically hurt in any way by a parent or adult in the home; being sworn at, insulted, or put down by a parent or adult in the

home; and being touched sexually by, made to touch sexually, or forced to have sex with a person at least 5 years older or an adult.

Prevalence of Traumatic Experiences

Histories of traumatic experiences are widespread in society and endemic in behavioral health settings.[2] Results from a nationally-representative survey of American adults conducted in 2002-2003, the National Comorbidity Survey-Replication, indicated that approximately 83% had experienced at least one of the traumatic experiences listed in Table 1, the most common being unexpected death of a loved one (42%), followed by witnessing death, a dead body, or a serious injury (28%).[6] With regard to the subset of ACEs, according to data from the **Behavioral Risk Factor Surveillance System (BRFSS)** administered in 23 states from 2011-2014, it is estimated that about 62% of American adults have experienced at least one ACE before age 18, and 25% have experienced three or more.[7]

Table 2. Childhood Adversities[5]

Interpersonal Loss
Parental death
Parental divorce
Other separation from parents/caregivers
Parental Maladjustment
Mental illness
Substance abuse
Criminality
Violence
Maltreatment
Physical abuse
Sexual abuse
Neglect
Life-Threatening Childhood Physical Illness
Extreme Family Economic Adversity

In Washington State, ACEs were assessed in the 2011 BRFSS. Results showed that approximately 64% of adult Washingtonians have experienced at least one ACE and 28% have experienced three or more. Fifteen percent of adult Washingtonians have been the victim of intimate partner violence, 82% of whom have sustained injuries. Ten percent of Washington adults have been raped, and 12% have experienced attempted rape. As shown in Table 3, proportions with trauma histories trend higher among woman-identified members of the general population, much higher among adults of any gender who report current mental health treatment[1], and higher still among woman-identified recipients of mental health treatment, among whom 53% have had three or more ACEs, 34% have experienced intimate partner violence, 95% of whom sustained injuries, 33% have been raped, and 31% have experienced attempted rape. **The proportions of Washington adults who have a history of 3 or more ACEs, intimate partner violence, rape, or attempted rape are 46% in the general population, 54% among women, 62% among mental health care recipients, and 70% among woman-identified mental health care recipients.** Significant proportions of Washington adults and mental health care recipients may have been traumatized by other events or circumstances, such as those listed in Table 1 and Table 2, but no data are readily available to ascertain such proportions.

Table 3. Histories of Trauma Among Washington Adults

	General Population	Mental Health Care Recipients	Women in the General Population	Women Receiving Mental Health Care
At least 1 adverse childhood experience	64%	80%	66%	83%
Three or more adverse childhood experiences	28%	48%	32%	53%
Lifetime intimate partner violence	15%	27%	19%	34%
Lifetime rape	10%	24%	17%	33%
Lifetime attempted rape	12%	23%	18%	31%
Any of the above 4	46%	62%	54%	70%

Note: Proportions refer to those ≥ 18 years of age and are based on weighted data from the 2011 Behavioral Risk Factor Surveillance System

[1] Those who responded yes to "Are you now taking medicine or receiving treatment from a doctor or other health professional for any type of mental health condition or emotional problem?"

The **2018 Washington State Healthy Youth Survey** assessed certain traumatic experiences among 6th, 8th, 10th, and 12th graders in Washington State school districts. Approximately one quarter (25%) of 6th to 12th graders reported having been bullied at least once in the past 30 days. Over one-third (37%) of 8th to 12th graders reported that a parent or adult in their home swears at them, insults them, puts them down or humiliates them at least *sometimes*. One in four (25%) 8th to 12th graders had seen an adult hit, slap, punch, shove, kick, or otherwise physically hurt another adult more than one time. Nearly as many (24%) 8th to 12th graders reported that an adult had physically hurt them on purpose (e.g., by pushing, slapping, hitting, kicking, or punching), leaving a mark, bruise or injury. One quarter (25%) of 12th graders reported having been made to kiss, sexually touch, or have intercourse with someone when they didn't want to do so.

Who develops psychological disorders following trauma exposure?

The reasons why some trauma-exposed individuals go on to develop post-traumatic stress disorder (PTSD) and/or other long-standing psychological sequelae of trauma while some individuals do not have been a topic of significant debate, and risk and resilience factors are the subject of ongoing scientific inquiry.[8] Nonetheless, we still do not fully understand or know with any certainty who among those with traumatic experiences will develop or have developed PTSD or other mental health concerns as a result of the trauma. Unless and until this is fully understood, ***it would be prudent to surmise that anyone who has been exposed to potentially traumatic circumstances could have experienced lasting psychological trauma.*** Furthermore, since a large proportion of the population has been exposed to traumatic circumstances, ***it would be prudent to surmise that nearly all who present for physical or mental health care may have been traumatized at some point in their lifetimes.***

Why is this important?

Routine healthcare encounters have been known to trigger trauma-related distress or feelings of retraumatization in survivors of abuse and other trauma.[9,10,11,12] Feeling triggered or retraumatized can lead survivors to avoid obtaining necessary healthcare.[13] This is particularly unfortunate because research suggests that, compared to individuals without histories of trauma, those with trauma histories have a higher risk for chronic pain conditions (arthritis/rheumatism, back/neck pain, headaches, and chronic pain), heart disease, seasonal allergies, diabetes, cancer, and ulcers.[14] Compared to individuals with trauma histories but not PTSD, those with PTSD have further elevated risk of all of these conditions.[14] **If individuals with trauma histories do not show up for health care out of concern that they may be triggered or retraumatized, it stands to reason that this would pose a risk to their health.**

Trauma-Informed Care

Out of recognition of the above, there has been a major movement towards trauma-informed care (TIC). TIC is "grounded in an understanding of and responsiveness to the impact of trauma, that emphasizes physical, psychological, and emotional safety for both providers and survivors, and that creates opportunities for survivors to rebuild a sense of control and empowerment."[15] TIC has been described as a strengths-based approach that "involves vigilance in anticipating and avoiding institutional processes and individual practices that are likely to retraumatize individuals who already have histories of trauma, and it upholds the importance of consumer participation in the development, delivery, and evaluation of services."[2] In the context of behavioral health services, TIC "includes an understanding of trauma and an awareness of the impact it can have across settings, services, and populations. It involves viewing trauma through an ecological and cultural lens and recognizing that context plays a significant role in how individuals perceive and process traumatic events, whether acute or chronic."[3] Three key elements of a trauma-informed behavioral health program, organization, or system include 1) maintaining awareness of the prevalence of trauma; 2) understanding how trauma affects all individuals involved, including behavioral health staff; and 3) putting this knowledge of trauma and its sequelae into practice.[3] A cardinal example of the ethos of TIC is a move away from an emphasis finding out

"what is wrong with you" to respecting "what happened to you."[16,17,18] Integrating TIC into behavioral health services is believed to benefit not only clients, but also their families, communities, behavioral health organizations, and behavioral health staff.[2] TIC is intended to provide clients with a more compassionate perspective of their presenting problems, to foster a greater sense of safety in traumatized clients, and to prevent more serious consequences of traumatic stress.[2,19]

Applying Trauma-Informed Care to Behavioral Health

Table 4. Key Principles and Core Strategies of a Trauma-Informed Approach[21,37]

Key Principles

1. Safety
2. Trustworthiness and Transparency
3. Peer Support
4. Collaboration and Mutuality
5. Empowerment, Voice and Choice
6. Cultural, Historical, and Gender Issues

Core Strategies

a) Leadership towards organizational change
b) use of data to inform practice
c) workforce development
d) identification of alternatives to potentially retraumatizing practices
e) improve the consumer's role in care
f) vigorous debriefing

Since TIC is fundamentally a guiding ethos, in practice it can be applied in many ways. The same practice (e.g., assessment) can be applied in a trauma-informed way or without any regard to the possibility of prior trauma and retraumatization. A trauma-informed lens can be used to adapt existing practices to be consistent with TIC or to implement new practices and build interventions from the ground up. TIC is largely a "systems approach" as it is meant to be applied throughout entire systems of care and service delivery. This is necessary because the most careful efforts to avoid retraumatization in the application of interventions may be undermined by larger policies that are experienced as retraumatizing. For example, if a client who has been a victim of stalking and harassment receives a trauma-informed intervention but then receives repeated threatening phone calls for being late paying her bill, she may be retraumatized. "A trauma-informed service system and/or organization is one in which all components of the system have been reconsidered and evaluated in the light of a basic understanding of the role that violence and trauma play in the lives of people seeking mental health and addiction services…There should be written plans and procedures to develop a trauma-informed service system and/or trauma-informed organizations and facilities with methods to identify and monitor progress. Training programs for this purpose should be implemented."[20] The Substance Use and Mental Health Services Administration (SAMHSA) has articulated six key principles of a trauma-informed approach, shown in Table 4.[21] The National Association of State Mental Health Program Directors (NASMHPD) have also delineated six core strategies and provided specific guidelines to reduce potentially retraumatizing practices such as the use of restraints and seclusions, also shown in Table 4.[37]

Considering the Evidence for Trauma-Informed Care

Described above, the evidence regarding the prevalence of trauma and likelihood of retraumatization through health care service delivery is well-established and presents a compelling case for the implementation of TIC. In this way, TIC may be considered empirically informed and, perhaps, evidence-based. However, just because an practice or intervention is grounded in the literature does not mean that it has been tested and found to be effective. In Washington "evidence-based means a program or practice that has been tested in heterogeneous or intended populations with multiple randomized, or statistically controlled evaluations, or both; or one large multiple site randomized, or statistically controlled evaluation, or both, where the weight of the evidence from a systemic review demonstrates sustained improvements in at least one outcome… also… a program or practice that can be implemented with a set of procedures to allow successful replication in Washington and, when possible, is determined to be cost-beneficial."[22]

A number of trauma-informed interventions have been developed for behavioral health settings and evaluated with rigorous randomized controlled trials (RCTs).[23,24,25,26,27,28,29] Such interventions may meet the standard to be called "evidence-based" in Washington State. However, RCTs of trauma-informed interventions do not provide an experimental test of efficacy or effectiveness of TIC. For an experimental test of TIC, it would be necessary to

randomly assign clients to a trauma-informed system of care or a trauma-ignorant system of care and to control for potentially confounding variables such as location, other clientele, individual differences in staff, cost, etc. Such a trial would be practically impossible to do. A less rigorous but more practical possibility would be to conduct a pre-post trial within the same system of care, comparing outcomes before the implementation of TIC to those after the implementation of TIC, attempting to control (however possible) for the confounding effects related to time. Such would seem to be a natural study for any organization adopting TIC to undertake; however, there is a dearth of literature that presents such studies.

Purtle[30] conducted a systematic review in 2017 of evaluations of trauma-informed organizational interventions that include staff trainings. Twenty-three studies met inclusion criteria, the majority of which (17 studies) used a single group, pretest/posttest design, five used a randomized controlled design, and one used a quasi-experimental design. In most studies, no specific TIC training curriculum was identified and the training was developed in-house by the evaluators. Otherwise, the most frequently used TIC training curricula were Risking Connection (four studies) and the National Child Traumatic Stress Network's trauma-informed training (three studies). Trainings ranged from 1 hour to multiple days. Eight studies assessed effects on client outcomes, five of which found significant improvements. However, 12 studies found significant pre- to post-training improvements in staff TIC knowledge, attitudes, and behaviors, with 7 studies showing improvements retained at follow-up at least 1 month later. The researcher concluded that the strength of evidence remains limited by a preponderance of single group, pre-post studies with short follow-up periods, unsophisticated analytic approaches, and inconsistent use of assessment instruments.

Morrissey et al.[31] presented twelve-month outcomes of trauma-informed interventions for women with co-occurring mental health and substance use disorders. The Women, Co-occurring Disorders, and Violence Study (WCDVS) was described as the first major federal effort to address the lack of appropriate services for women with co-occurring disorders who also have a history of physical or sexual abuse and high service utilization. The WCDVS approach consisted of eight core services, such as resource coordination and crisis intervention; staff knowledgeable about trauma; holistic treatment of mental health, trauma, and substance use issues; and the involvement of consumers in service planning and provision. Effectiveness was evaluated using a quasi-experimental study conducted at 9 sites in which intervention sites chose comparison agencies that served similar clients with care-as-usual services in the same or nearby communities. Trauma-specific treatment implementation was guided by manuals and varied by site. Treatments used included the Addiction and Trauma Recovery Integration Model (1 site), Seeking Safety (4 sites), the Trauma Recovery and Empowerment Model (3 sites), and a Triad model (1 site). The researchers observed a clear trend at six months that strengthened at 12 months: among women with severe baseline values, a greater percentage improved substantially in terms of trauma and mental health symptom outcomes when treated in sites that emphasized integrated counseling. On average, women in the intervention sites improved more than those in the comparison sites. Among women with severe mental health or trauma symptoms at baseline, proportionally more women in the intervention group attained meaningful clinical improvement.

Ashby et al.[32] examined outcomes after the implementation of TIC within Children's Hospital Colorado through an obstetric and pediatric medical home for pregnant and parenting women under age 23 and their children, called the Colorado Adolescent Maternity Program (CAMP). Programmatic and operational changes were made, guided by SAMHSA's six key principles and supported through training ongoing fidelity monitoring, engaging staff at all levels: scheduling and front desk staff, nurses, medical assistants, and medical providers. A historical comparison group was used to compare outcomes from CAMP prior to the implementation of TIC and after its complete implementation. Results showed that implementation of TIC was associated with significantly higher rates of attendance at prenatal appointments and lower rates of low-birthweight babies.

Creech et al.[33] presented first year outcomes of a national implementation of a trauma-informed intervention program designed to reduce intimate partner violence (IPV) in veterans. Creation of the program followed 14 recommendations from a TIC task force which sought to expand screening, prevention, and intervention for

veterans regardless of gender, to introduce an employee assistance program for IPV, and to adopt non-stigmatizing language. Trainings were attended by personnel from 11 different hospitals in the first year of implementation, and fidelity was monitored over time. Results showed a significant decreases in measures of IPV from baseline to post-intervention, which were consistent with those observed in a controlled clinical efficacy trial.

Greenwald et al.[34] described first year outcomes of trauma-informed treatment for youth in a residential facility. The agency was already using the Positive Peer Culture approach[35] and sought to become more trauma-informed. Using a trauma-informed-approach called the Fairy Tale model[36], 70 direct care workers were trained on how to provide trauma-informed milieu care and on review, group consultation, and practice applying the model to challenging clients. Compared to the year prior to training, in the year of the training the researchers observed a 34% increase in problem reduction, 39% reduction in treatment time, and double the rate of positive discharges (e.g., discharge to a lower level of care), supporting the value of the Fairy Tale model for emotionally disturbed and acting-out youth.

Azeem et al.[37] examined use of seclusion and restraints with adolescent inpatients after the implementation of TIC at a state psychiatric hospital. Senior administrative, medical, nursing, and senior school staff at the hospital were trained on the six core strategies put forth by NASMHPD. Results showed that, during a six month period, prior to the implementation of TIC, there were 93 seclusion/restraint episodes. In a six month period following implementation of TIC, there were 31 such episodes, suggesting the implementation of TIC reduced the use of potentially retraumatizing practices.

Beidas et al.[38] described efforts to implement a trauma-informed public behavioral health system for children in Philadelphia. As part of the initiative, which began in 2012, behavioral health agencies were trained in both evidence-based trauma-informed interventions and trauma-informed models, which included trauma-focused cognitive behavioral therapy (TF-CBT)[39], prolonged exposure (PE)[40], and the Sanctuary Model.[16] Findings included a substantial increase in the number of youth diagnosed with PTSD which the researchers attributed to increased availability and/or access to trauma services and interpreted as supportive of efforts to increase trauma screening. Since 2012, participating agencies reported an over two-fold increase in the number of youth treated with TF-CBT, including youth receiving the entire treatment package. Overall, results supported the benefit of the TIC initiative.

Osofsky et al.[41] presented a study of a trauma-informed integrated care model implementation that sought to reduce posttraumatic stress symptoms and physical health complaints as part of a larger study to evaluate the effectiveness of the integrated health efforts in the Mental and Behavioral Health Capacity Project in Louisiana (MBHCP-LA). Using an interprofessional collaboration model (psychology and psychiatry), the approach combined on-site and telemedicine services to deliver brief behavioral-based trauma treatment, integrated into primary care, to communities affected by a series of natural and man-made disasters. Researchers examined participants' self-report of trauma symptoms at intake and at 1-, 3-, and 6-month follow-ups. Significant decreases in posttraumatic stress symptoms and physical health complaints were observed over the course of treatment, with 63% of patients demonstrating clinically significant change.

Booshehri et al.[42] described an RCT of a trauma-informed implementation of Temporary Assistance for Needy Families (TANF). Caregivers of children under six years old were randomly assigned to receive one of three TANF programs: standard TANF (control), TANF with 28-weeks financial education (partial TIC), and TANF with 28-weeks financial education and trauma-informed peer support (full TIC). Participants receiving full TIC evidenced significant declines in depressive symptoms and economic hardship 12-15 months following baseline, and these declines were significantly greater than those observed in the control condition. Neither participants in the control group nor the partial TIC group evidenced significant changes in depressive symptoms or economic hardship. The full TIC group demonstrated a significant increase in self-efficacy at month 9 while the control group demonstrated a significant decrease in self-efficacy at the same time point. Overall, results suggest that

trauma informed approaches delivered through the TANF system may create steady improvements in health and income.

Jankowski et al.[43] described a randomized study of a trauma-informed care initiative in a state child welfare system. As part of The New Hampshire Partners for Change Project, the overall aim was to use TIC strategies to improve the functioning and social-emotional well-being of children and families served by the state Division for Children, Youth and Families. Objectives included 1) implementation of universal screening for trauma exposure, posttraumatic symptoms, and well-being; 2) use of data-driven case planning informed by trauma screening results; 3) enhancement of progress monitoring through rescreening and increased coordination between child welfare and mental health sectors; 4) increase in trauma-focused competencies among child welfare staff; 5) increase in collaboration between child welfare and community-based behavioral health services; 6) psychotropic medication monitoring; 7) use of evidence-based trauma treatments by mental health providers; and 8) implementing service array realignment strategies. Ten child welfare offices were matched and randomized to an early or delayed implementation cohort. Staff were surveyed at Time 1 (prior to any intervention), Time 2 (postintervention for Cohort 1), and Time 3 (postintervention for Cohort 2). Findings showed increases in trauma screening, initial case planning, and perceptions of system performance as well as improved attitudes and behaviors for trauma screening. Staff and leader participants were strongly supportive of TIC.

Summary and Conclusions

In behavioral health services, TIC includes an understanding of trauma and an awareness of its potential impact across populations, settings, and services, viewed through an ecological and cultural lens.[44] Recognizing that context plays a significant role in how individuals perceive and process traumatic events, TIC upholds the importance of consumer participation in the development, delivery, and evaluation of services and stresses anticipating and avoiding institutional processes and individual practices that may retraumatize and present barriers to care.[44]

Given the well-established evidence of the prevalence of trauma and the effects it can have on physical and mental health care, it fundamentally seems like the right thing to do. However, the evidence for TIC as an approach to care is broadly heterogeneous and hampered by challenges in applying rigorous experimental designs to evaluate efficacy or effectiveness. Further research would help to demonstrate the value of TIC. Nonetheless, the fact that the general Trauma Informed Care approach has been associated with improvements in a variety of domains and settings is highly noteworthy.

References

1. Hoerr NL, Osol A. (eds.). Blakiston's New Gould Medical Dictionary, 2nd ed. New York: McGraw-Hill; 1956. Available from: https://books.google.com/books?id=J1cgAQAAMAAJ

2. Substance Abuse and Mental Health Services Administration. Trauma-Informed Care in Behavioral Health Services. Treatment Improvement Protocol (TIP) Series 57. HHS Publication No. (SMA) 13-4801. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2014.

3. Substance Abuse and Mental Health Services Administration. SAMHSA's working definition of trauma and principles and guidance for a trauma-informed approach [Draft].Rockville, MD: Substance Abuse and Mental Health Services Administration; 2012.

4. Liu H, Petukhova MV, Sampson NA, Aguilar-Gaxiola S, Alonso J, Andrade LH, Bromet EJ, De Girolamo G, Haro JM, Hinkov H, Kawakami N. Association of DSM-IV posttraumatic stress disorder with traumatic experience type and history in the World Health Organization World Mental Health Surveys. JAMA Psychiatry. 2017 Mar 1;74(3):270-81.

5. Green JG, McLaughlin KA, Berglund PA, Gruber MJ, Sampson NA, Zaslavsky AM, Kessler RC. Childhood adversities and adult psychiatric disorders in the national comorbidity survey replication I: associations with first onset of DSM-IV disorders. Archives of General Psychiatry. 2010 Feb 1;67(2):113-23.

6. Benjet C, Bromet E, Karam EG, Kessler RC, McLaughlin KA, Ruscio AM, Shahly V, Stein DJ, Petukhova M, Hill E, Alonso J. The epidemiology of traumatic event exposure worldwide: results from the World Mental Health Survey Consortium. Psychological Medicine. 2016 Jan;46(2):327-43.

7. Merrick MT, Ford DC, Ports KA, Guinn AS. Prevalence of adverse childhood experiences from the 2011-2014 Behavioral Risk Factor Surveillance System in 23 states. JAMA Pediatrics. 2018 Nov 1;172(11):1038-44.

8. Brewin CR, Andrews B, Valentine JD. Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. Journal of Consulting and Clinical Psychology. 2000 Oct;68(5):748.

9. Havig K. The health care experiences of adult survivors of child sexual abuse: a systematic review of evidence on sensitive practice. Trauma, Violence, & Abuse. 2008;9(1):19–33.

10. Pratt-Eriksson D, Bergbom I, Lyckhage ED. Don't ask don't tell: battered women living in Sweden encounter with healthcare personnel and their experience of the care given. International journal of qualitative studies on health and well-being. 2014 Jan 1;9(1):23166.

11. Wallin Lundell I, Eulau L, Bjarneby F, Westerbotn M. Women's experiences with healthcare professionals after suffering from gender-based violence: An interview study. Journal of Clinical Nursing. 2018 Mar;27(5-6):949-57.

12. Harper K, Stalker CA, Palmer S, Gadbois S. Adults traumatized by child abuse: What survivors need from community-based mental health professionals. Journal of Mental Health. 2008 Jan 1;17(4):361-74.

13. Byrne SK. Healthcare avoidance: a critical review. Holistic Nursing Practice. 2008 Sep 1;22(5):280-92.

14. Sledjeski EM, Speisman B, Dierker LC. Does number of lifetime traumas explain the relationship between PTSD and chronic medical conditions? Answers from the National Comorbidity Survey-Replication (NCS-R). Journal of behavioral medicine. 2008 Aug 1;31(4):341-9.

15. Hopper EK, Bassuk EL, Olivet J. Shelter from the storm: trauma-informed care in homelessness services settings. The Open Health Services and Policy Journal. 2010;3:80-100.

16. Bloom SL. The sanctuary model: developing generic inpatient programs for the treatment of psychological trauma. In: Williams MB, Sommer JF, eds. Handbook of post-traumatic therapy: a practical guide to intervention, treatment, and research. Westport, CT: Greenwood Publishing; 1994. p. 474-494.

17. Sweeney A, Clement S, Filson B, Kennedy A. Trauma-informed mental healthcare in the UK: what is it and how can we further its development? Mental Health Review Journal. 2016 Sep 12;21(3):174-92.

18. Gentry JE, Baranowsky AB, Rhoton R. Trauma competency: An active ingredients approach to treating posttraumatic stress disorder. Journal of Counseling & Development. 2017 Jul;95(3):279-87.

19. Fallot RD, Harris M. A trauma-informed approach to screening and assessment. In Harris M, Fallot RD, eds. Using trauma theory to design service systems. San Francisco: Jossey-Bass; 2001. p. 23–31.

20. Jennings A. Criteria for building a trauma-informed mental health service system. 2007 Dec. Available from http://www.theannainstitute.org/CBTIMHSS.pdf.

21. Substance Abuse and Mental Health Services Administration. SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2014.

22. Washington State Legislature. SB 6312 – Prioritizing Purchasing of Services that Utilize Evidence-Based Practices. 2013. Available from https://app.leg.wa.gov/billsummary?BillNumber=6312&Year=2013.

23. King EA. Outcomes of trauma-informed interventions for incarcerated women: A review. International Journal of Offender Therapy and Comparative Criminology. 2017 May;61(6):667-88.

24. Johnson SL, Elam K, Rogers AA, Hilley C. A meta-analysis of parenting practices and child psychosocial outcomes in trauma-informed parenting interventions after violence exposure. Prevention Science. 2018 Oct 1;19(7):927-38.

25. Hien DA, Wells EA, Jiang H, Suarez-Morales L, Campbell AN, Cohen LR, Miele GM, Killeen T, Brigham GS, Zhang Y, Hansen C. Multisite randomized trial of behavioral interventions for women with co-occurring PTSD and substance use disorders. Journal of Consulting and Clinical Psychology. 2009 Aug;77(4):607.

26. Torchalla I, Nosen L, Rostam H, Allen P. Integrated treatment programs for individuals with concurrent substance use disorders and trauma experiences: A systematic review and meta-analysis. Journal of Substance Abuse Treatment. 2012 Jan 1;42(1):65-77.

27. Gallegos AM, Crean HF, Pigeon WR, Heffner KL. Meditation and yoga for posttraumatic stress disorder: a meta-analytic review of randomized controlled trials. Clinical Psychology Review. 2017 Dec 1;58:115-24.

28. Black PJ, Woodworth M, Tremblay M, Carpenter T. A review of trauma-informed treatment for adolescents. Canadian Psychology. 2012 Aug;53(3):192.

29. Johnson SL, Elam K, Rogers AA, Hilley C. A meta-analysis of parenting practices and child psychosocial outcomes in trauma-informed parenting interventions after violence exposure. Prevention Science. 2018 Oct 1;19(7):927-38.

30. Purtle J. Systematic review of evaluations of trauma-informed organizational interventions that include staff trainings. Trauma, Violence, & Abuse. 2018 Aug 5:1524838018791304.

31. 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 Services. 2005 Oct;56(10):1213-22.

32. Ashby BD, Ehmer AC, Scott SM. Trauma-informed care in a patient-centered medical home for adolescent mothers and their children. Psychological Services. 2019 Feb;16(1):67.

33. Creech SK, Benzer JK, Ebalu T, Murphy CM, Taft CT. National implementation of a trauma-informed intervention for intimate partner violence in the Department of Veterans Affairs: first year outcomes. BMC Health Services Research. 2018 Dec;18(1):582.

34. Greenwald R, Siradas L, Schmitt TA, Reslan S, Fierle J, Sande B. Implementing trauma-informed treatment for youth in a residential facility: First-year outcomes. Residential Treatment for Children & Youth. 2012 Apr 1;29(2):141-53.

35. Vorrath HH, Brendtro LK. Positive peer culture. Hawthorne, NY: Aldine Publishing; 1985.

36. Greenwald R. Child trauma handbook: A guide for helping trauma-exposed children and adolescents. Binghamton, NY: Haworth; 2005.

37. Azeem MW, Aujla A, Rammerth M, Binsfeld G, Jones RB. Effectiveness of six core strategies based on trauma informed care in reducing seclusions and restraints at a child and adolescent psychiatric hospital. Journal of Child and Adolescent Psychiatric Nursing. 2011 Feb;24(1):11-5.

38. Beidas RS, Adams DR, Kratz HE, Jackson K, Berkowitz S, Zinny A, Cliggitt LP, DeWitt KL, Skriner L, Evans Jr A. Lessons learned while building a trauma-informed public behavioral health system in the City of Philadelphia. Evaluation and Program Planning. 2016 Dec 1;59:21-32.

39. Cohen JA, Mannarino AP. Interventions for sexually abused children: Initial treatment outcome findings. Child Maltreatment. 1998;3:17-26.

40. Foa EB, Hembree EA, Cahill SP, Rauch SA, Riggs DS, Feeny NC, et al. Randomized trial of prolonged exposure for posttraumatic stress disorder with and without cognitive restructuring: Outcome at academic and community clinics. Journal of Consulting and Clinical Psychology. 2005;73:953-964.

41. Osofsky HJ, Osofsky JD, Hansel TC, Flynn T. The Louisiana Mental and Behavioral Health Capacity Project Trauma-Informed Integrated Care Model and Improved Posttraumatic Stress Outcomes. Journal of Public Health Management and Practice. 2017 Nov 1;23:S25-31.

42. Booshehri LG, Dugan J, Patel F, Bloom S, Chilton M. Trauma-informed Temporary Assistance for Needy Families (TANF): A randomized controlled trial with a two-generation impact. Journal of child and family studies. 2018 May 1;27(5):1594-604.

43. Jankowski MK, Schifferdecker KE, Butcher RL, Foster-Johnson L, Barnett ER. Effectiveness of a trauma-informed care initiative in a state child welfare system: a randomized study. Child Maltreatment. 2019 Feb;24(1):86-97.

44. Substance Abuse and Mental Health Services Administration. Trauma-Informed Care in Behavioral Health Services. Quick Guide for Clinicians. HHS Publication No. (SMA) 15-4912. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2015.

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