Supporting Women with Substance Use Issues: Trauma-Informed Care as a Foundation for Practice in the NICU

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Abstract

Infants with neonatal abstinence syndrome and their mothers require extended support through health and social service systems. Practitioners are interested in exploring innovative approaches to caring for infants and mothers. There is now compelling evidence linking women's substance use to experiences of trauma and violence. A significant shift in the fields of addiction and mental health has been awareness of the impact of trauma and violence on infants and children, women, their families, and communities. In this article, the current state of knowledge of trauma-informed care is reviewed, in particular for application to practice within the NICU. Trauma survivors are at risk of being retraumatized because of health care providers' limited understanding of how to work effectively with them. Recognizing the impact of trauma and implementing evidence-based trauma-informed practices in the NICU holds promise for improving outcomes for women and their infants.

Keywords: trauma-informed care; substance use; addiction; neonatal intensive care unit; neonatal abstinence syndrome; neonatal withdrawal

NICU teams across the United States and in many other countries are reporting substantial increases in the incidence of neonatal abstinence syndrome (NAS) and maternal opioid use.[1–3] Patrick and colleagues have recently reported an almost threefold increase in the annual rate of NAS diagnosis and a 35 percent increase in NICU financial expenditures related to this diagnosis in the United States between 2000 and 2009.[3] Local task forces, provincial and statewide working groups, national quality-improvement collaboratives, and international guideline-development groups have formed in many jurisdictions, and several practice-improvement initiatives have been launched.

With this significant increase in NAS, NICU team members are reporting that they are feeling overwhelmed. A growing number of studies examining the experiences of nurses caring for infants with NAS and their families identify that nurses are feeling distressed, frustrated, resentful, angry, and inadequate.[4–6] A key theme across these studies was identification of a significant knowledge gap related to substance use and the social complexities that women were coping with in addition to substance use, such as mental health problems, violence, poverty, and homelessness. Catlin, in a recent editorial in a neonatal nursing journal, issued a call for improved care for the substance-positive mother and challenged nurses to "extend our knowledge and advocacy to a population who needs us."[7(p287)]

The concept of trauma-informed practice has emerged in the fields of mental health, addiction, and child psychology as an approach to care that is effective in addressing these complex challenges.[8–11] Trauma-informed principles are increasingly forming the foundation of a diverse range of programs and services that support individuals and

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families who are experiencing social challenges such as corrections, juvenile justice, child welfare, youth mental health, and education. Addressing trauma is now becoming "the expectation, not the exception" in many of these systems.[12] Although progress has been made in these fields over the past few decades, these advances have not yet been fully translated throughout other areas of health care practice where they are increasingly needed and hold great potential for contributing to improvements in care.

For teams in the NICU setting, a trauma-informed approach to practice offers possibilities for improving practice with families coping with the effects of substance use. In this article, the current state of knowledge on the concept of trauma-informed care is reviewed, recommendations are made for how this knowledge could be translated for the NICU context, and basic strategies for beginning to integrate this approach into practice are identified. This article is Part 1 of a two-part series. In the second part, the state of knowledge specific to trauma and early childhood development will be reviewed.

BRIEF SUMMARY OF THE EVOLUTION OF THE CONCEPT OF TRAUMA

Etymology, or the study of the origin of words and the way in which their meanings have changed throughout history, is often a helpful way to begin to examine the emergence of a concept or theory. The word trauma emerged in the 1600s from the Greek *traumatikos*, which meant *pertaining to a wound*. Within health care, the word trauma has historically been applied to the experience of serious injury or physical shock to the body, usually associated with emergency and triage care. The term began to be associated with psychological experiences in the 1800s when psychology appeared as a specialized field, with abnormal stress conceptualized as a *psychic wound*. Knowledge and awareness rapidly increased in the years during and following World Wars I and II as psychologists treated returning soldiers who were experiencing long-term psychological distress.[13] Because soldiers were primarily men, the study of psychological trauma at that time focused primarily on men. Psychological distress in women historically has been framed as hysteria and attributed to a delicate female mental state.[14]

The origins of contemporary trauma theory, in particular within a civilian context in the United States, are often attributed to the Cocoanut Grove Fire, a fire in a Boston nightclub in 1942 in which 492 people were killed. This fire represented the first time that the psychological effects of a civilian event were studied. Dr. Erich Lindemann published his classic paper on the symptoms and management of grief based on his study of survivors of this event.[15] The diagnosis of posttraumatic stress disorder (PTSD) first appeared in the *Diagnostic and Statistical Manual of Mental Health* in 1980. Judith Herman's 1997 landmark text on trauma and recovery highlighted the essential connections between not only biologic and psychological factors but also the concurrent social and political dimensions of trauma.[16] The notion of *trauma-informed services* for the survivors of violent victimization was pioneered by psychologists Maxine Harris and Roger Fallot in their 2001 book *Creating Cultures of Trauma-Informed Care*.[17]

WOMEN AND TRAUMA

The concept of trauma has been seen as useful for developing a deeper understanding of issues relevant to women's health, including exposure to sexual assault and intimate partner violence. Russell's (1984) landmark epidemiologic survey reported that 25 percent of women in the United States had been raped and 33 percent had been sexually abused in their childhood.[18] From a gendered perspective, trauma in the lives of women moved "from the private domain of the home to the public arena" with the women's movement in the 1970s.[19(p114)] Several significant developments related to trauma emerged at this time, including the appearance of the terms *battered women syndrome* and *battered child syndrome* within legal and health contexts.[20,21] Specialized programs and treatments were developed that made visible and challenged how society understood and responded to issues such as sexual assault, intimate partner violence, and child abuse. For example, rape crisis centers were first established in the early 1970s, and the Child Abuse Prevention and Treatment Act became law in the U.S. in 1974.

WOMEN AND SUBSTANCE USE

Knowledge in the field of addiction science has advanced significantly in the past 30 years. There have been many theories of addiction over time, viewing addiction as a moral weakness, as a criminal behavior, and as a medical disease. Researchers and clinicians have also suggested approaching addiction as simply a biomedical disease and have encouraged viewing addiction as a multifactorial or biopsychosocial condition, incorporating not only biologic but also individual, social, cultural, historical, political, and economic influences.[22,23]

It is important to note that, when defining and treating addiction, there is significant variation in approaches and resources related to gender. North American social standards and expectations related to substance use are much harsher for women than for men; over time, women who use illegal drugs have been portrayed as amoral, sexually promiscuous, and deviant.[22,24] In spite of these expectations, women and girls have been encouraged to self-medicate for emotional and physical symptoms. Over the past century, physicians have regularly prescribed medications (including opioids, stimulants, antianxiolytics, and antidepressants) more for women than men to treat moodiness, fatigue, pain, anxiety, and depression.

Historically, substance use treatment developed as a focused intervention based on the needs of addicted men.[23]

Alcoholics Anonymous first developed in the 1930s and was based on the premise that addiction was a progressive, permanent disease primarily affecting men. Treatment counselors focused primarily on the addiction itself and not on other issues. Research shows that women face additional barriers to treatment that men usually do not, such as a lack of child care, fear of losing their children to child welfare, and less money to pay for treatment.[25] Integrated recovery programs for women are now purposefully addressing these interconnections in the supports that they offer women participating in their programs and are also addressing the social issues that are also often present, such as poverty and homelessness.[26–28]

WHAT IS TRAUMA-INFORMED CARE AND WHY IS IT IMPORTANT FOR US IN THE NICU?

The Substance Abuse and Mental Health Services Administration (SAMHSA) is currently defining trauma as the response that happens when an *event*, series of events, or set of circumstances (such as the death of a significant parent or child, experiencing significant injury or illness, neglect, abuse, witnessing violence, or war) is *experienced* by an individual as physically or emotionally harmful or threatening.[29] Depending on contextual factors such as developmental stage and social supports and resources, this experience can have lasting adverse *effects* on the individual's functioning and physical, social, emotional, or spiritual well-being. There are many forms of trauma (simple, complex, developmental, and intergenerational) and many variations in how trauma is experienced by each individual. The SAMHSA has framed trauma with a "three E" approach (taking into account the *event* itself, the *experience* of the individual, and the *effect* on the individual) to capture the diversity of these variations.

The birth of a premature or ill newborn can be considered a traumatic event in and of itself.[30] Symptoms of stress are common, if not universal, in parents in the NICU, with many mothers and fathers experiencing relatively high levels of psychological distress, meeting the criteria for diagnosis of acute stress disorder and being placed at risk for developing PTSD.[31–33]

The experiences of trauma in the NICU that are reported in the literature are primarily focused on families coping with a premature or ill infant. The issues that are identified most frequently for families are relationship tensions, financial strains, depression, and stress.[31,33,34] In addition to NICU experiences, trauma is also reported related to perinatal events such as an unanticipated cesarean birth or other invasive procedures such as forceps or vacuum extraction, conception after rape or intimate partner violence, and birth and breastfeeding within the context of a history of sexual abuse.[35,36]

Although some elements of health care may be reassuring (such as safety, having physical needs met, and routines supported by caring providers), medical settings are frequently experienced as unsafe and distressing for people with trauma experiences.[9] There are many routine "taken-for-granted" activities that occur in medical settings, such as invasive procedures, discomfort and pain, removal of clothing, physical touch, personal questions that may be embarrassing, vulnerable physical positions, loss of or a lack of privacy, staff in uniforms (in particular men), and significant power dynamics between those requiring care and their health care providers. These routine activities are triggers that can retraumatize women because these link to and invoke moments of past trauma.

From a developmental perspective, the impact of the experiences of the critical early months on the infant also needs to be considered.[8,37] Research clearly shows the positive effects of interventions that promote early attachment. In the second part of this series, concepts such as attachment and resilience will be addressed in more detail. However, practices such as separation from mother during a NICU stay (this is beginning to shift now to models of care that support keeping mother and baby together) and conditions such as family poverty, stressed parenting, continued parental substance use, and maternal depression can accumulate, with long-term consequences for the infant. There is a significant body of literature available on the concept of trauma specific to the developing child, and there is now some emerging literature on the concept of developmental trauma in the NICU.[38]

INTRODUCTION TO A TRAUMA-INFORMED APPROACH TO CARE

A *trauma-informed approach* refers to how a program or organization thinks about and responds to those who have experienced or may be at risk for experiencing trauma. SAMHSA outlines a "four R" perspective for the elements that are required to create this shift in organizational culture: (1) *realizing* the prevalence of trauma, (2) *recognizing* how trauma affects all individuals involved with the organization (clients, families and team members), (3) *responding* by putting this knowledge into practice, and (4) actively *resisting* retraumatization.[29] In the next section, this "four R" perspective is applied to the NICU setting. Specific activities for each element are summarized in Table 1.

Realizing the Prevalence of Trauma

Two key studies in particular have raised the profile of the pervasive, intergenerational impact of trauma on children, families, and communities and the effectiveness of a trauma-informed approach. The *Adverse Childhood Experiences Study* was conducted in the United States from 1998 to 2010.[39] Researchers looked at the life histories of >17,000 individuals to determine the connections between adverse childhood events (related to abuse and living in dysfunctional households) and health in adulthood. They determined that more than half of their participants had experienced at least one traumatic event in their life and that there was a strong influencing effect of trauma on the development of substance

TABLE 1 ■ Examples of Activities for Integrating a Trauma-Informed Approach (Based on the SAMHSA "Four R" elements)[29]

Element	Activities
Realizing	Gather data for your state on substance use, mental health, and trauma/violence.
	Conduct a retrospective review of discharge data in partnership with obstetric and public health teams to learn the scope of the issue in your community.
	Talk to community partners in programs that work with women who are experiencing substance use, mental health, and trauma/violence issues to learn about the scope of the issue for them and how they provide care.
Recognizing	Conduct trauma-informed care self-assessments for individual team members and your unit/organization.
	Learn more about trauma and trauma-informed care; for example, review current resources, share information in staff meetings, and provide workshops.
	Widen your team to include members with knowledge and experience in the fields of trauma, substance use, and mental health.
	Invite women who have recovered from substance use and had their infants in a NICU setting to come to team meetings to share their experiences or join a parent advisory council.
Responding	Offer NICU tours for women and their families and provide an opportunity to meet some of the team members who will be caring for their infant.
	Set a welcoming tone when women and their partners arrive, with an integrated and consistent response from all team members, from unit clerks to direct care workers.
	Establish a comforting and welcoming physical environment and emphasize physical and emotional safety.
	Provide clear information about services and be transparent about practices within the NICU.
	Provide choices as much as possible and ensure informed consent.
	Use strengths-based, person-first language (change language away from "manipulative, uncooperative, drug-seeking" to "they have survived trauma, they have developed these survival skills to help them make it this far, recovery takes time").
	Shift from "what is wrong" to "what is happening" and integrate this knowledge into every aspect of service design and delivery.
	Recognize that "problem behaviors" are an attempt to cope with past experiences or current stressors.
Resisting retraumatization	Be mindful of triggers in the NICU environment and in routine practices.
	Examine unit policies and procedures to ensure they integrate the principles of trauma-informed care.
	Examine your routine unit practices from the perspective of someone who has a history of trauma (such as what is our admission procedure, how are child removals conducted, what kind of drug testing is done, and how is information about the baby's health shared).

Abbreviation: SAMHSA = Substance Abuse and Mental Health Services Administration.

use and mental health problems. The *Women, Co-occurring Disorders and Violence Study* was conducted in the United States from 1998 to 2003.[40] In this study, integrated interventions were piloted at multiple sites for women with substance use and mental health concerns and histories of trauma and violence. Clinicians and researchers involved in this study developed principles for providing trauma-informed services to women that have been integrated as foundations in this field and proposed that trauma needed to be integrated into the provision of related public health and social services.

Developing an awareness of the pervasiveness of the issue of trauma in the lives of the families in our communities creates an opportunity to view how service delivery can be improved. One key approach is to embed this understanding of trauma into all aspects of service delivery—a *universal precautions* approach, operating as if everyone who comes into our care has experienced a traumatic event.[41] It is important to note that providers who work from a trauma-informed approach do not have to be specialists in providing treatment for trauma; instead, they need to be able to recognize the effects of trauma and alter their practices to provide appropriate safe support. A trauma-informed approach should therefore not be an "add-on" practice but should be a *fundamental shift* in the way our services are organized and delivered (Table 2).

TABLE 2 ■ Comparison of Traditional and Trauma-Informed Approaches to Care[5]

Traditional	Trauma-Informed
Traumatic stress is not seen as a primary defining event for people.	Traumatic events are the central events impacting everything else.
Problems and symptoms are discrete and separate.	Problems and symptoms are interrelated responses to or coping mechanisms to deal with trauma.
Hierarchical	Sharing power
People providing the service are the experts.	Women are active experts and partners with people providing services.
Primary goals are defined by service providers and focus on symptom reduction.	Primary goals are defined by women and focus on recovery, self-efficacy, and healing.
Reactive	Proactive
Sees clients as broke, vulnerable, damaged, and needing protection from themselves	Understands that providing clients with the maximum level of choices, autonomy, self-determination, dignity, and respect is central to healing

TABLE 3 ■ Key Websites for Further Information

Source	Link
British Columbia Centre of Excellence for Women's Health	http://www.bccewh.bc.ca
National Center for Trauma-Informed Care & Alternatives to Seclusion and Restraint	http://www.samhsa.gov/nctic/
National Center on Domestic Violence, Trauma & Mental Health	http://www.nationalcenterdvtraumamh.org/
National Child Traumatic Stress Network	http://www.nctsn.org/
BC Provincial Mental Health and Substance Use Planning Council. *Trauma-Informed Practice (TIP) Guide*; 2013.	http://bccewh.bc.ca/wp-content/uploads/2012/05/2013_TIP-Guide.pdf
Center for Substance Abuse Treatment. *Substance Abuse Treatment: Addressing the Specific Needs of Women*. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2009. Treatment Improvement Protocol (TIP) Series 51. HHS publication (SMA) 09-4426.	http://store.samhsa.gov/list/series?name=TIP-Series-Treatment-Improvement-Protocols-TIPS
NCTSN Core Curriculum on Childhood Trauma Task Force. *The 12 Core Concepts: Concepts for Understanding Traumatic Stress Responses in Children and Families*. Core Curriculum on Childhood Trauma. Los Angeles, CA: UCLA-Duke University National Center for Child Traumatic Stress; 2012.	http://www.nctsnet.org/resources/audiences/parents-caregivers/what-is-cts/12-core-concepts
A Safe Passage	http://asafepassage.info/
Best Start Resource Centre. *When Compassion Hurts: Burnout, Vicarious Trauma and Secondary Trauma in Prenatal and Early Childhood Service Providers*. Toronto, Canada: Best Start; 2012.	http://en.beststart.org/
Fallot R, Harris M. *Creating Cultures of Trauma-Informed Care (CCTIC): A Self-Assessment and Planning Protocol*. Washington, DC: Community Connections; 2009.	http://www.communityconnectionsdc.org/web/page/673/interior.html
Manitoba Trauma Information and Education Centre	http://trauma-informed.ca/
National Centre on Domestic Violence, Trauma & Mental Health. *Creating Trauma-Informed Services Tip Sheet Series*; 2011.	http://www.nationalcenterdvtraumamh.org/publications-products/creating-trauma-informed-services-tipsheet-series-for-advocates/
National Resource Center on Domestic Violence	http://www.nrcdv.org/
Prescott L, Soares P, Konnath K, Bassuk E. *A Long Journey Home: A Guide for Creating Trauma-Informed Services for Mothers and Children Experiencing Homelessness*. Rockville, MD: Homelessness Resource Center, Substance Abuse and Mental Health Services Administration; 2008.	http://www.homeless.samhsa.gov/resource/a-long-journey-home-a-guide-for-creating-trauma-informed-services-for-mothers-and-children-experiencing-homelessness-33055.aspx
Prevention and Treatment of Traumatic Childbirth	http://pattch.org/
Centre for Children and Families in the Justice System	http://www.lfcc.on.ca/index.htm

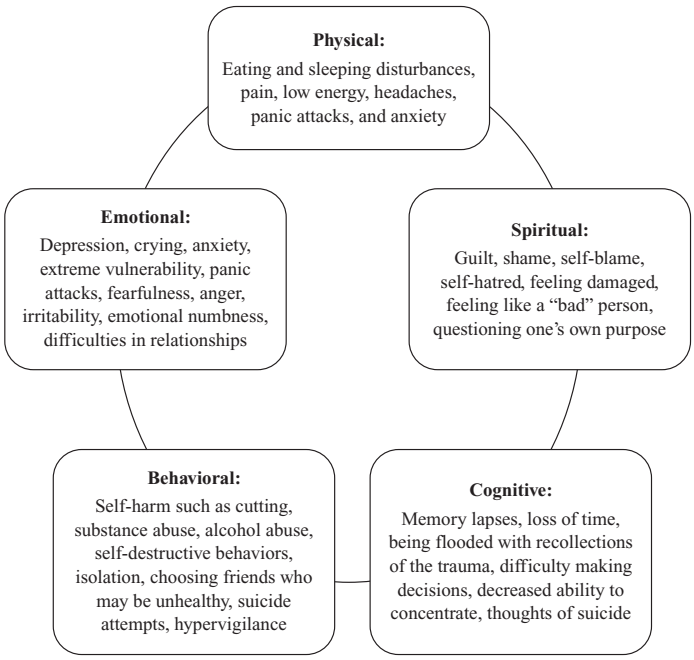
There are a growing number of resources and tools that are available to support teams in examining their practices from a trauma-informed perspective, including individual and organizational checklists, team self-assessment activities, and program planning guidelines (Table 3).

Recognizing How Trauma Affects Individuals

Survivors of trauma and abuse often live in environments where they constantly face the threat of danger and fear, which then becomes the lens through which they see the world. From a physiologic perspective, trauma survivors live in a state of constant hyperarousal, which overactivates the adrenal stress response and overwhelms the limbic system. Eventually over time, the amygdala is unable to discriminate threat cues, and the brain becomes conditioned to treat all potential threats as actual threats.[42] Clinically, survivors may demonstrate overly defensive reactions, even to what others might think are harmless stimuli such as a nurse asking them when they are coming again to visit or a security guard walking through the NICU. Many of the adaptations that people who have experienced trauma develop to survive may be seen as pathologic (such as using drugs and alcohol) unless they are interpreted through a trauma lens.[42]

A biopsychosocial approach is an effective way to understand the effects of trauma (Figure 1). From a physiologic perspective, experiences of trauma have been linked to chronic central nervous system changes, sleep disorders, cardiovascular problems, gastrointestinal and genitourinary problems, and reproductive and sexual health problems. It is also important to be aware of the effects on cognitive, behavioral, and emotional systems. Without an understanding of trauma, symptoms that are seen frequently in the NICU such as anger, acting out, or not visiting may be attributed solely to the substance use or judgmentally to the people themselves.

FIGURE 1 ■ The expression of trauma.[42]



Asking the question, "What is happening?" instead of "What is wrong?" creates the opportunity to see beyond the behavior and develop a deeper understanding of the life circumstances of each woman.

Many health care providers have had limited or no education or experience in recognizing and managing substance use, mental health, and trauma issues.[10,43,44] In general, nurses, physicians, and others have limited knowledge about substance use and its effects, hold attitudes that are more punitive and negative than positive or supportive toward women who abused substances during the perinatal period, and are more reluctant to work with alcohol and drug misusers or provide minimal care to this groups of patients.[43,44] In 2011, the SAMHSA designated trauma and justice as one of its key strategic initiatives and in 2012 convened a group of national experts to address the issue of trauma through developing a common definition, describing the approach, and developing guidelines for implementing this approach. A Federal Partners Committee on Women and Trauma was formed in 2009 in the U.S. to stimulate interest in trauma-informed approaches in the nation's federal member agencies, including the U.S. Department of Health and Human Services.[45] From The National Center for Child Traumatic Stress was launched in 2000 to provide a child trauma perspective.

Responding by Putting Knowledge into Practice

After learning about the prevalence of trauma in their community and how to recognize signs of trauma in women and families, there are several initial steps that NICU teams can take to respond to this knowledge and begin to incorporate a trauma-informed approach into their care. Two key preliminary steps foundational to this work are developing new partnerships and incorporating the voices of women into service delivery design.

Developing New Partnerships. When generating ideas about improvements in practice, teams typically consider the resources that are available within NICU settings. The complexity of substance use and trauma requires teams to think well beyond their usual boundaries and identify potential partners who have expertise in this area. It is important for NICU team members to recognize that they are involved in what is a small but important component of the overall health and social support that is required by infants and their families over a long period of time. Because of the chronicity and intergenerational nature of addiction, collaboration is needed across a continuum of care, from low-barrier well-woman care (including access to a full spectrum of reproductive health services); to early identification of pregnancy with intensive supports; and to sustained community-based support for new families, including services that address not only health issues but also the many social inequities that families face. New potential partners may be found in many places along this continuum, including public health nurses, social workers, mental health and addictions counselors, and woman abuse counselors.

Incorporating the Perspectives of Women and Families. There have been significant advances in the NICU related to inclusion of family voices in designing and evaluating NICU care.[46,47] It is critical that NICU teams are able to incorporate the voices of women who have experienced trauma and substance use into care design. The more that trauma-informed approaches are integrated into practice, the more supportive and safe the environment may be for women to participate in this work and advocate for improvements. Actions to support participation include having them attend activities with someone they trust or are comfortable with and providing financial support in the form of honorariums, child care and travel reimbursement, and meals. It is also helpful prior to the planning sessions to remind other team participants of how the principles of trauma-informed care can be applied to meetings, such as reducing hierarchical communication and relationships, being respectful in how women and their infants are referred to in language, and ensuring the environment feels comfortable and safe.

Although it is ideal to have families themselves involved, alternative strategies for including parent voices may be needed, including involving parents who have recovered from their substance use and are able to feel comfortable advocating and participating as well as involving community members who can represent these voices from recovery programs and family violence programs.

Actively Resisting Retraumatization. The NICU environment itself and the routine practices and policies that are in place may be experienced by women as traumatizing, and they can trigger stress and trauma responses. By understanding this relationship, teams can proactively examine these practices and policies in collaboration with women to develop an environment that will be more likely to be experienced as safe.

CONCLUSION

Trauma is most likely a universal experience for families of infants requiring care in a NICU setting. It also frequently occurs in women with substance use issues and their families. As NICU teams experience an increase in the number of infants with NAS, new approaches to care are needed. One approach that holds great potential for the NICU is the incorporation of trauma-informed care. There are numerous benefits that are possible with this shift in care. Women and infants and their families may experience the development of strong early attachments, decreased stress and anxiety, increased sense of safety, and improved coordination of care and connection to community services. Health care providers may experience more positive relationships with women and their families, decreased stress and anxiety, decreased vicarious trauma, and strengthened relationships with community partners. From a health systems perspective, a trauma-informed approach may contribute to more effective team relationships and communication, improved patient and provider satisfaction, and more appropriate service and resource use.

Flacking and colleagues suggest that the most important consideration in supporting parent–infant closeness is "paying attention to developing an organizational culture that supports the formation of parent-infant relationships."[48(p1035)] Family-centered care (FCC) is the philosophical foundation that provides a mechanism for collaboration and recognizing families as the experts in the care of their infant. In the case of NAS and maternal substance use, there are limitations to the clinical direction that an FCC philosophy can provide, and additional approaches to care are required. A trauma-informed approach provides a complementary way to address the unique caregiving requirements of this group of infants, mothers, and families.

We now have compelling evidence that women's substance use is often linked to their experiences of trauma and violence. Many of the resources that have been developed around the issue of trauma-informed care have primarily been targeted toward providers who work in settings where they are most likely to encounter individuals experiencing problematic substance use, such as women's shelters, child protection services, psychiatric programs, counseling services, and recovery programs. This knowledge is also helpful in NICU settings, where we are increasingly faced with supporting women with substance use challenges. There is a great deal we can learn to enhance our care through partnering with others in our communities who have advanced knowledge and skills related to this approach and through hearing the voices of women and families.

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