Chapter

From the Shadow to the Light: Navigating Life as a Mother with a History of Substance Use and Parenting a Child Healing from Early Childhood Trauma

Linda M. Perez, Suzi E. Desmond and Cheryl J. Sundheim

Abstract

We report on an innovative in-patient residential recovery program that serves as a model for those who treat low-income women with substance use and psychiatric problems and their children. The case discussed details the psychotherapeutic treatment of a mother and child that was carried out within the protection of the program's seeking safety, trauma informed model of care. The treatment demonstrates the sensitive care that is needed when working with a young child with a history of early childhood trauma and the favorable ways that holding the mother in mind freed her to be emotionally available to her son. In this situation, the therapist provided an emotionally-attuned interpersonal therapeutic relationship and created features of safety in the environment that helped the child develop an emerging reorganized protective structure to safely explore his fears. The mother and child can follow a course of recovery from traumatic experiences within the context of favorable conditions, thereby interrupting the intergenerational dynamics of early relational trauma.

Keywords: seeking safety trauma informed care, psychoneurobiological treatment approach, early relational trauma, establish safety and trusting relationships

1. Introduction

1.1 Seeking safety, trauma informed model of care

Trauma has been described as the single most important public health challenge [1] that is too often silenced and unacknowledged for its significant prevalence and devastating impact in our public dialog [2]. In the United States drug overdose deaths rose from 38,329 in 2010 to 70,237 in 2017 followed by a decrease to 67,367 in 2018. Narcotics or opioids (mainly fentanyl or fentanyl analogs) are the main cause of drug overdose deaths followed by methamphetamine and cocaine psychostimulants. Additional overdose deaths involving benzodiazepines or antidepressants are mainly due to those ingested with synthetic opioids. Women account for 33% of these statistics (National Institute on Drug Abuse, 2020).

These alarming data override the importance of the 19.7 million American teenagers and adults, age 12 years and older, who battle daily with a substance use disorder, many of whom struggle with alcohol consumption and both a substance use and mental health disorder [3]. Nor do they account for the effects of the loss of a loved one or the consequences of intergenerational trauma as children inherit extreme stress that is passed on through the caregiving system. Such a predisposition interfaces with life's pressures that trigger emotional and psychological problems in future generations [4].

The purpose of this article is to report on an innovative in-patient residential recovery program that serves as a model for those who treat low-income women with substance use and psychiatric problems and their children. The majority are mothers who are pregnant, parenting infants in the first 3 years of life, or reunifying with older children who are in the foster care system. We find that long-term substance use or dependency is associated with mental health challenges, and no matter which came first, successful treatment demands that one addresses both simultaneously. The recovery program combines a ***seeking safety, trauma-informed model of care*** [5] to enable the women to meet their most urgent clinical need to establish safety and develop trusting relationships and secure attachments with their children, thereby, interrupting the intergenerational dynamics of early relational trauma.

There is a deepened understanding that infants and young children, who live in impoverished environments exacerbated by substance use and maternal psychopathology, are at risk for adverse developmental outcomes. Given their capacity for mutuality and reciprocal relationships, the form of psychotherapeutic treatment most compatible with this view is performed within the context of the dyad and the attachment relationship. Attention is focused on the complex interactions that occur between mother and child in a relational context [6–8]. This type of relationship-based clinical practice is appropriate when difficult circumstances such as parental substance use or depression, chronic stress, or child constitutional or developmental characteristics interfere with the formation of a secure attachment [9].

Clinical questions that are germane to this paper are: How does a psychoneurobiological approach, which draws from psychoanalytic, attachment, polyvagal, and neurobiological theories present an integrated way of interrupting the intergenerational effects of trauma that are passed on to future generations? How does our understanding of polyvagal theory enhance the clinical situation within the safety of a trauma informed model of care that emphasizes secure base therapeutic relationships?

2. Theoretical perspectives

2.1 The psychoanalytic approach and attachment theory understanding

Ainsworth's [10] characteristic of the attachment figure as a secure base from which to explore the protection of a therapeutic relationship and to develop new models of trust resonates with a seeking-safety, trauma-informed model of care. Developing a secure base in psychotherapy is as important as it is for children's development and humans' long-term need for safety. In the therapeutic process, protection includes social-emotional security through the therapist's ongoing regulation of the individual's affective state, often calming through emotional availability [7, 11]. Therapeutic co-regulation signifies regulation of co-adaptive processes at the level of behavior, physiology, and representation [12–14].

Bowlby [15] places a steady relationship between an individual and a familiar person on a level of biological importance secondary to the maintenance of physiological stable states. He proposes, "the regulatory systems that maintain a steady relationship between an individual and his familiar environment can be regarded as an outer ring of life-maintaining systems complementary to the inner ring of systems that maintain physiologic homeostasis" ([16], p. 150). Therapeutic co-regulation is a critical component of a homeostatic response to stress and is a treatment strategy that can be used to regulate the individual's internal state [12, 14].

The aim of a secure base model of psychotherapy is to facilitate the mother's understanding and reconstruction of a protected internal working model at a representational level [12]. Another purpose is to enable the mother to form a healthy bond with her offspring. Bowlby [12] recognized that when treating mothers with insecure states of mind with respect to internal working models of attachment, it is essential for the therapist to remain fully present and emotionally attuned to the mother so that a special kind of well-being can flow from the dependable emotional connection. That deep and loyal attachment with the mother is profoundly individually empowering and emotionally regulating. The mother now feels a special bond with the therapist emerge, assisting her to reciprocate emotionally attuned and regulated interactions with her child.

2.2 The attachment relationship and its regulatory function

The goal of the attachment system is for the infant to obtain proximity to the attachment figure, especially in time of stress, fear, or danger (real or perceived). A mutual goal of the caregiving system is to provide proximity, safety, and sensitive care for the child. Protection includes not only physical protection but social-emotional protection as well, through ongoing regulation of the infant's emotional state by way of emotional availability and attunement [7, 11].

Attachment research shows that mothers with unresolved trauma and who demonstrate fearful or dissociative behavior tend to have children with a disorganized attachment pattern [17, 18]. For these children the mother is a source of fear rather than a source of comfort. In situations where the children feel a threat to their own survival, they will have great difficulty regulating arousal. For these children the mother is a source of fear rather than a source of comfort. As a result, they lose the benefits of the attachment relationship and psychobiological attunement and homeostatic regulation that should serve to reduce their fear.

Schore [19] claims that attachment relationships are important beyond the provision of a sense of safety and protection. He goes on to say that prolonged psychobiological transactions associated with a stressful caregiving relationship impair the initial formation of the stress response system in enduring ways. His view supports the notion that poor psychobiological regulation is a traumatic stress that produces long-term changes in biological systems. Continuous suboptimal caregiving generates hormonal reactions that promote an impaired hypoactive or hyperactive stress response that is mediated through the hypothalamic-pituitary-adrenal (HPA) axis [20]. If the HPA axis is repeatedly activated, stress-response mechanisms are set a high level of reactivity that both stimulates the release of cortisol and is sustained by it [21, 22].

2.3 Polyvagal theory

Polyvagal theory offers another view of homeostatic regulation of the autonomic nervous system in which to understand and treat fear and arousal. Porges [13] coined the word neuroception to describe how the nervous system is genetically

wired to detect safety, danger, or threat, well below the level of conscious awareness, when it is challenged by the environment. At the point where fear activates biochemical changes in the autonomic nervous system, the brain reacts defensively to social challenges through either sympathetic hyperarousal or parasympathetic dissociation. The most usual response to a perceived threat is a fight or flight response as a form of self-protection. If the environment does not respond, the individual moves through a dissociative continuum, initially becoming compliant and immobile (freezing), followed by surrender and dissociation. This hypoarousal cool down on top of high arousal leads to a collapse in the parasympathetic nervous system.

Porges [13] asserts that a traumatic event can impair an individual's neuroception and leave in its wake misidentification with a sense of safety, danger or threat. In his view, prosody of voice and facial expressions are important features of safety that set-in motion the process of reducing stress and calming the limbic system, thereby, allowing an individual to participate in social engagement. Emotionally-attuned interactions that are presented face to face with kind gestures and a soothing tone rather than signs of disapproval more reliably mitigate fear and interrupt defensive behaviors [13]. These favorable exchanges have the potential to regulate autonomic state so that an individual can explore feeling safe within the protection of a therapeutic relationship and fully engage in therapy. At the same time, it is important to create added features of safety in the environment through predictable expectations and schedules.

2.4 Neurobehavioral descriptions of trauma

Trauma has been described as the single most important public health challenge [1]. The neuroscientific world recognizes that trauma is imprinted on the body leaving the individual overaroused and fearful even after an event ceases to exist [1, 13]. When everyday occurrences activate intense fear, the fear becomes conditioned and deeply entrenched, biasing the nervous system towards overarousal. Fewer environmental stimuli are now required to reactivate early fear [23, 24]. The therapeutic aim is to reduce the stimulation of the neural pathways that communicate fear and stress in the hope that these pathways may eventually fade through lack of use [23].

Living in fear distorts sensory perceptions and it gives rise to disproportionate, atypical development of the parts of the right brain associated with decoding facial expressions and reading threatening social cues. At the same time there is underdevelopment of the parts of the right brain governing self-control. In some cases, the brain seeks extreme sensory experiences and pursues incautious unsafe exploration. In other cases, brain function and behavior become rigidly organized around an aversion to stimulation and exploration.

Trauma produces high levels of the catecholamines epinephrine, norepinephrine, and dopamine. Activation of these neurotransmitters correlates with anxiety, hyperarousal, and hypervigilance [24]. As such, individuals have trouble inhibiting negative impulses and thus operate under the influence of the lower, impulsive brainstem, literally acting without thinking.

This same fear activates biochemical changes in the autonomic nervous system [19, 23–25]. It is not unusual for people to react neurobiologically and defensively to their fear with a constant fight or flight response or, worse, dissociation. If they stay in a continuous state of dissociation, the neuronal system mediating this response becomes sensitized thus increasing the risk of their developing psychiatric symptoms including depression, anxiety, helplessness, and withdrawal [23].

3. An integrated trauma informed model of care

Those of us who work directly with families living in extraordinarily stressful circumstances confess to the many difficulties inherent in the process. Over the past 35 years our recovery program has treated low-income mothers with substance use and psychiatric problems and their young children in the San Francisco Bay Area. The majority of the women who come to the program have histories of trafficking, poverty, homelessness, incarceration, school failure, and are victims of domestic violence and child abuse.

3.1 Relationship-based intervention

There is a heightened understanding that comprehensive substance use and mental health treatment for the mother must include the young child in the cure [26]. Otherwise, little attention is paid to the adverse developmental threats to children who may be prenatally drug exposed or whose lives are negatively influenced by toxic stress. The trauma-informed in-patient residential recovery program for women and children that we are presenting is founded on the premise that a relationship-based approach acts as a secure source from which the women explore the protection of a therapeutic bond and environment.

This corrective method enables the women to realize safety and develop new models of trust, encourages them to express their ideas in an environment where they are valued, treats their substance use and mental health disorders simultaneously, facilitates emotionally attuned interactions between the mother and child to foster secure attachments, remedies the many deleterious effects that profound stress has on the mother's and the child's nervous system, and interrupts the intergenerational dynamics of early trauma.

A culturally competent and trauma informed recovery team of family therapists, clinical social worker, psychologist, psychiatrist, nurse practitioner, and medical doctor work collaboratively with intake clinicians, substance use counselors, parenting specialist, and child care providers to deliver ethically responsive in-patient substance use, mental health, physical health, onsite therapeutic childcare, and parenting education. This coordinated effort provides a singular opportunity to help the mothers to overcome their addiction and stabilize their mental health while promoting an emotionally healthy mother infant dyad.

The residential treatment program has resources and system-wide procedures in place to identify and treat the women and their children's needs. The assistant executive director oversees the management of treatment programs and recurrent multidisciplinary team meetings strengthen collaboration and coordination among all services and other community support systems. The women receive psychiatric consultation, clinical case management; substance use and mental health counseling; health screenings; nursing advice; and recovery groups plus life skills, seeking safety, and nurturing skills parenting classes; a 14-week Circle of Security attachment training; and interactive playgroups that accentuate dynamic exchanges between the mother and child.

The birth of a constitutionally-compromised prenatally-exposed infant to a mother in recovery is stressful and can overwhelm her. More often, the infants have experienced other complex traumatic stressors and have regulatory problems that plunder the mother's own ability to co-regulate her infant. All mothers admit that it is a struggle to care for an agitated, stressed infant. Even capable mothers may be unable to do so without proper help. The infants and young children at the recovery program get onsite pediatric health care, mother-child psychotherapy, and licensed

therapeutic childcare with mental health consultation, developmental assessment, and early intervention that is focused on prenatal drug exposure and early childhood trauma.

3.2 Toddler with a history of neglect and a disrupted attachment relationship

The following example illustrates the program's therapeutic treatment of a mother with a known history of depression and substance use and her 18-month old male toddler with a noteworthy past of prenatal drug exposure, neglect, a disrupted attachment, and a foster home placement. Early experiences of neglect can create implicit memories that may trigger defensive behavioral reactions if adults try to console the child when feeling threatened [2]. A toddler who has been removed from the mother is likely to suffer from separation distress and problems with the attachment relationship. In turn, the mother may have difficulty regulating her child who is easily disorganized from the effects of the traumatic separation that endangers the attachment bond and that are exacerbated relative to her own mental health challenges. Additionally, it is not unusual for the mother to feel remorseful for failing to get help sooner.

At the early phase of treatment, the mother immediately meets with the psychiatrist to ensure psychiatric stabilization and medication management. The mother and child spend the first week together in the STAR (Services to Accelerate Resilience) program where they meet staff from the adult substance use and mental health recovery program, the family mental health and pediatric clinics, the therapeutic child care, and the family enrichment program. During this initial stage, the staff develops a relationship with the mother and child focusing on their strengths and informally observing their interactions while evaluating their needs. Afterwards, the team members gather at its weekly meeting and clinical supervision to recommend features of safety across all of its programs and to coordinate on-site child referrals to the pediatric clinic and the family mental health treatment program.

At the next phase, interventions are implemented to treat the mother's symptoms of mental distress through ongoing sessions with the substance use and mental health therapist and the clinical case manager. The mother attends daily in-patient recovery groups that focus on her own trauma and substance use history, as well as a Circle of Security attachment training and parenting classes where she is taught knowledge of child development versus child management, how to identify and respond to her child's trauma behaviors, and ways to use emotionally attuned interactions to re-regulate the child's distress.

By now, the child is enrolled in child care and is receiving trauma informed developmental care and assessment, medical and nutritional support, and mental health consultation. Given that the trauma coincides with the child's expectable developmental challenges, interventions focus on supporting new skills, identifying traumatic stress reactions, and recognizing traumatic triggers that lead to stress behaviors. These trauma-informed strategies are incorporated and reinforced in the residential living area by the parenting specialist and a 24-hour staff of substance use counselors. Additionally, the child is seen in the pediatric clinic and referred to the family mental health clinic for mother-child psychotherapy.

4. Mother-child pyschotherapy

Mother-child psychotherapy is a relationship-based clinical practice that is appropriate when the mother is depressed and battling substance use and the

child has a history of traumatic stress that jeopardizes a secure attachment [9]. The therapist's primary objective is to strengthen the attachment relationship between the child and mother and improve developmental outcomes. This clinical approach demonstrates the sensitive care that is needed when working with the dyad and the favorable ways that holding the mother in mind frees her to be emotionally available to the child.

In this kind of psychotherapy, the therapist attends to both the mother's and child's emotions, and to their relationship while considering the mother's mental health and substance use treatment. Essential to this practice is for the therapist to notice and reinforce positive interactions between the mother and child by remaining mindful and emotionally attuned to the mother. This support and attunement will help to alleviate the mother's symptoms of distress so she can be more present and available to help her child organize emotional and intellectual responses necessary to adjust to life stressors.

The psychotherapeutic treatment begins with a guided clinical interview performed by the child psychologist who is a team member of the therapeutic recovery program. The mother talked about her own psychiatric and drug history and how it prevented her from protecting and caring for her child. Now that she is in recovery the mother wanted to get well and attend to her child's needs. The mother disclosed that she was exhausted due to her depression and the child's night terrors that were keeping her awake at night. She discussed how the child is frequently tearful when he is dropped off at the childcare and her inability to comfort him. The mother wanted to know if the therapy could help her understand her son's behavior and whether he would be like other children in the program who seemed less upset. The therapist explained that her child appeared easily disorganized from the effects of early trauma, including separation from her while he was in foster care, but that he could adapt to these stressors with her support and therapeutic intervention.

The psychotherapeutic treatment included the therapist observing the dyad interacting during caregiving and child-centered play, focusing on how the mother engaged her child. The therapist looked for areas of synchronicity and difficulty in their interactions that were influencing their relationship. When the child cried and the mother raised her voice to get his attention and rushed to soothe him, he ran away and hid in a corner of the room, refusing her comfort. When the child did not accept her efforts to console him, the mother perceived this as rejection and became stiff and helpless. The therapist observed a mutually stressed mother-child system that was diminishing the mother's own regulation and ability to co-regulate her son's behavior.

In these moments, the therapist contained the mother's and son's distress by creating a quiet and supportive environment, and by modeling for the mother how to respond in a sensitive way. She encouraged the mother to approach her child more slowly at eye level and use a soothing voice to lower his arousal to an intensity he could tolerate before trying to comfort him. The therapist talked in a reassuring tone that helped to calm and regulate the mother's emotions before explaining that her son's rejection was his way of telling his story and asking for help. In this close context, the mother gained trust in the therapeutic process and revealed her own traumatic history of growing up in the foster care system.

The treatment also included periodic observations of the child in the childcare setting where the therapist worked with the teachers to identify his traumatic stress reactions. The teachers reported that the child was primarily tearful and subdued when he was dropped off in the mornings, that he often hid in the corner of the room and rejected interacting with the teachers or playing with his peers, and that the child was mostly silent except when he became highly aroused and protested if he had to wait his turn during meal times. At naptime, he would resist going to sleep or wake up crying.

5. Therapeutic goals

The therapist formed a clinical impression that the child's early experiences with neglect and a disrupted attachment relationship had created a sensitization where he did not trust that his basic needs would be met. The therapist, in conjunction with the mother, designed a therapeutic plan that consisted of weekly dyad visits for the child and the mother and developmental guidance and consultation with the child care teachers and the parenting specialist. The treatment goals emphasized the importance of a trusting and secure attachment relationship with the mother, offering the child interactive co-regulation, providing supportive transitions from mother to child care, creating features of safety in the classroom and living environments, and alleviating the mother's symptoms of distress.

5.1 Foster a secure mother-child attachment relationship

The mother had difficulty putting her child to sleep in his crib and tolerating his night terrors. She revealed that being unable to soothe him brought up feelings of rejection and doubt as a mother. The therapist assured the mother that her solid commitment to her recovery and mental health treatment, as well as seeking therapeutic and developmental support for her child improve her ability to care for him.

The therapist helped the mother to understand that the birth of a prenatally-exposed infant is stressful for both mother and baby, especially if there is a lack of social support. The therapist clarified that ongoing stress can overwhelm a mother and weaken her ability to care for her baby. If there is a worsening of mental health and substance problems that go untreated, the unintentional consequence can lead to child neglect and a foster home placement.

The therapist explained that young children who experience early trauma see the world as a dangerous place. When your child is avoiding going to sleep and waking up screaming or running away from you, his brain and body are saying that he is scared. His fears are triggered automatically by something that reminded him of a stressful experience. In these moments, your son needs to receive cues that you are physically and emotionally present to keep him safe. He is saying, I am scared, and I want you to support me even when I run away from you. Please approach me slowly and gently, sing softly and tell me I am safe and that you will stay and take care of me.

Together, the therapist and mother listed attachment behaviors that the child used to signal distress. These included crying during separations from the mother to the child care and to his crib, night terrors, and running away and rejecting comfort from her and the teachers. The process of going over these behaviors allowed the mother to reflect on her son and their attachment relationship, and to share her own observations and concerns. The therapist explained that once his attachment needs are consistently met, he would begin to feel secure and start to explore his environment and other social relationships. She reassured the mother that responding sensitively to her son's attachment behaviors would generate a sense of security that he is looking for and the expectation of an available mother in times of upset. The therapist clarified that your child requires your physical presence, even when he runs away from you, to decrease his stress. At this stage of development, he is too young to be able to call upon his mother's image and a mental model of his attachment figure as a form of self-soothing.

5.2 Assist early regulation of basic physiologic functioning

The mother's own mental health challenges and substance use history compromised her ability to regulate her son's sleep pattern. The mother was worried

because she felt helpless when her son resisted going to sleep in his crib or when he woke up screaming during the night. She, herself, was sleep deprived and feared the consequences involved in breaking the program's safe sleep protocol of no bed sharing. She wanted help putting him to sleep in his crib and how to respond to his night terrors.

The therapist explained that sleep is an anxious time of separation for young children, especially if they have a history of being removed from the mother and placed in a foster home. The therapist worked with the mother to create a consistent nighttime routine for placing her child to sleep in his crib and for alleviating his night terrors. It began with a bath to help him relax followed by calming activities such as reading his favorite books. The mother was to quietly hold her son and speak calmly and softly until he showed that he was drowsy and ready to sleep before laying him gently in his crib. She was encouraged to sit by the crib and stay near her child and not leave his side until he was in a deep state. The therapist identified the child's different states of arousal and showed the mother how to regulate his arousal levels by altering the environment and looking for cues that he is tired in order to support a smooth state transition to sleep.

The mother shared with the therapist that she was feeling sleep deprived and asked the therapist to meet with the recovery program's mental health and substance use counselor to incorporate a rest period as part of her daily treatment schedule. The mother also asked the therapist to meet with the child's teachers to reinforce the therapeutic goals in the classroom to ensure that he was getting enough rest during nap time.

The therapist modeled for the teachers how to offer interactive regulatory support to the child when he became highly aroused during stressful periods. It was explained to the teachers that the therapeutic skill from this point of view is to gradually regulate levels of arousal through an interpersonal and emotionally attuned relationship within the context of a supportive environment [27]. The suggested curative aim is to minimize the stimulation of the neural pathways that communicate fear and stress in the hope that these pathways may eventually fade through lack of use [23].

The teachers were asked to create a consistent and predictable nap routine that prepared the child for sleep and to use comfort items for him to have during the transition that would calm and soothe him. They were reminded not to wake him up if he was crying out in his sleep, but rather use a reassuring and soothing voice that lets him know that you are there for him and to remain by his side until he settled. The teachers and parenting specialist recognized that "pressuring" the child to wait to eat during meal times increased his stress. They met with the mother to identify his favorite foods and arranged for small meals and snacks to be available at child care and in residence for him to eat throughout the day and evening.

5.3 Support transition from the mother to child care

The child was subdued and tearful each time the mother left him at the child care. The mother was conflicted over staying to comfort and meet his emotional needs and being late to the recovery program. Some of the time she would leave abruptly due to her own stress reactions, which increased both his and her distress levels. The therapist discussed with the mother that quick departures reinforced his sadness and worked with her and the teacher to implement a consistent and gradual transition plan during morning drop off.

The mother agreed to come to the child care earlier to participate in a pleasurable activity such as reading a book in a quiet area with her child and the teacher. Together, they looked for cues that he was relaxed and adjusted to the classroom before the

mother left for her program. At the time of departure, the teacher assured the child through close proximity and a reassuring voice that he would be cared for until his mother returned to pick him up.

As part of the transition plan, the mother brought his favorite items to the classroom to access during the day to calm and self-soothe. It was explained to the mother that his representational thinking of his attachment figure had not yet emerged and the comfort items, which represented a symbolic image of their relationship, were a form of self-soothing during difficult goodbyes. So, for the child, when his mother moved out of his sight, he felt scared as he perceived that she had vanished. His fear was triggered automatically by the stressful experience of his "mother's disappearance" when he was removed from her and placed in a foster home. It is of significance that traumatized young children are at a heightened risk of perpetuating a fearful state because their immature perceptual system interprets stimuli that even remotely resemble those associated with the trauma as dangerous.

5.4 Create features of safety

An important part of the therapeutic process was to create features of safety in the classroom and the residential environment that reduced the child's fear and protected him from exposure to reminders of past traumatic experiences. The child care teachers and the parenting specialist consulted with the therapist to identify strategies that worked to modulate the child's emotions and their own stress reactions when he would hide in the corner of the room and rejected interacting with them or playing with his peers. In these moments they learned to take deep breaths, practice being mindful and present by pausing and reflecting, and asking each other for support if feeling overwhelmed.

The therapist reinforced the teachers' efforts to implement consistent routines, a predictable daily schedule, visual aids, and an area that provided the child a sense of control. The teachers created a quiet area with pictures of the mother, books, comfort items, and sensory-regulating activities where they could quietly join the child and validate his strong emotions, while mediating pleasurable peer interactions. To reduce his fear response, the teachers were taught to approach the child slowly at eye level and to communicate with a soothing tone and kind face that affirmed his emotions and that guarded against signs of displeasure. They were educated in polyvagal theory, that prosody of voice and favorable face-to-face exchanges have the potential to regulate autonomic state so that young children can socially engage with their caregivers [13]. At the same time, the therapist worked with agency staff to integrate trauma informed practices and features of safety across all programs. The staff's deep affection for the child that grew over time, and was reinforced by the progress that he made, suggested he was feeling safe and trusted his needs were consistently being met.

5.5 Alleviate the mother's symptoms of distress

A mother with a substance use and a psychiatric disorder who is coping with unresolved trauma often cannot be emotionally attuned to her young child without therapeutic support. Notably, during the initial clinical sessions with the dyad, it was necessary for the therapist to alleviate the mother's symptoms of distress and free her to be emotionally available to her son. In these moments, the therapist's own attuned affective state helped organize the mother's mental processes and emotions so that her son could regulate his state through direct connection with the mother. This interactive regulatory process created a deep bond within the triad that reduced the mother's and child's intense arousal. In other words, the mother's

emotions are regulated by the therapist's compassion and empathy. The child's emotions are now regulated through the mother. When the child calms down the mother also calms and is able to emotionally attune to her child.

In this close therapeutic context, the mother discussed her own trauma history with the therapist. The mother talked about her parents who used drugs and the loneliness she experienced living in a foster home. Now in recovery, she was reconciling the pain of both receiving and passing on the family suffering to her son. The therapist explained that psychological distress from a history of traumatic experiences predisposes individuals to inherit extreme stress and a misidentification with parental suffering [4]. Such a predisposition borders with life's pressures to trigger psychological disorders whose symptoms worsen overtime when healthy coping strategies break down under high stress. If untreated, stress is passed on through generations of children passing on this painful legacy. The therapist's shared affect and willingness to stay connected to the mother during these painful conversations created a safe space and affection between them and enabled the mother to gain trust and fully commit to the therapeutic process.

6. Summary and discussion

The case discussed here details the psychotherapeutic treatment of a mother and child that was carried out within the protection of the residential recovery program's seeking safety, trauma informed model of care [5]. The mother-child psychotherapy demonstrated the sensitive care that was needed when working with a child with a history of neglect and a disrupted attachment relationship and the favorable ways that holding the mother in mind freed her to be emotionally available to her son. There existed evidence that the child's early traumatic experiences had created a sensitization where he did not trust that his basic needs would be met and a mother who was remorseful for not getting help sooner.

Early in the therapeutic process it was vital for the therapist to remain fully present and emotionally attuned to the mother so she could gain trust in the therapeutic relationship and fully engage in the therapy. The mother's attempts to soothe her child caused him to reject her and the mother to become overwhelmed and helpless. The therapist observed a mutually stressed mother-infant system that was diminishing the mother's own regulation and ability to co-regulate her son's behavior. The therapist created a protected therapeutic space and explained that the child's rejection was his way of telling his story and asking for help. The therapist's shared affect and willingness to stay emotionally connected to the mother alleviated her symptoms of distress so she could be emotionally available to her son even in moments when he was outwardly refusing her efforts to comfort him.

The primary questions that guided the therapeutic process asked: How does a psychoneurobiological approach, which draws from psychoanalytic, attachment, polyvagal, and neurobiological theories present an integrated way of interrupting the intergenerational effects of trauma that are passed on to future generations? How does our understanding of polyvagal theory enhance the clinical situation within the safety of a trauma informed model of care that emphasizes secure base therapeutic relationships?

To address these questions, the therapist explained to the mother that young children who experience early trauma see the world as a dangerous place. When your child is avoiding going to sleep and waking up screaming or running away from you, his nervous system is saying that he is scared. His fears are triggered automatically by something that reminded him of a stressful experience. He is saying, "I am scared, and I want you to support me even when I run away from you".

The therapist clarified that his fear overwhelmed him and that he got relief and reduction of his stress through the protection of a secure attachment relationship with his mother. The therapist modeled for the mother how to approach her child slowly and gently at eye level, singing softly and telling him that he is safe and that I will stay and take care of you. According to polyvagal theory, prosody of voice and favorable face-to-face exchanges have the potential to regulate autonomic state so that children can relate to nurturing adults [13].

As part of the psychotherapeutic treatment it was necessary to apply the psychotherapeutic goals and to create features of safety in the classroom and in the residential treatment program. Inquiries that surfaced focused on the child's neurobiological reactions to stress. Does he create the same conditions of compromise in the program staff? Do they have the emotional self-awareness and interactive regulatory capacity to regulate their own behavior and ameliorate the child's distress? To address these questions, special care was taken to explain the child's behavior to the teachers in the classroom and the residential treatment staff.

The therapist clarified that the child's behaviors were a natural response to early traumatic stress and showed the child care teachers and parenting counselor how to regulate the child's distress and attune to his intense emotions using gentle movements, a calm voice, and face-to-face interactions [13]. They were supported for their efforts to stay connected to the child during heightened levels of arousal and for providing a safe and containing environment that affirmed the child's emotions and minimized his fear responses from becoming conditioned. According to Perry et al.'s [23] findings, the therapeutic aim is to reduce the stimulation of the neural pathways that communicate fear and stress in the hope that these pathways may eventually fade through lack of use.

The mother successfully completed the in-patient residential treatment program in 6 months and moved to the program's sober living environment where she and her child resided for one year. The mother recognized that during the transition, her child's separation distress had increased, and it was beginning to take an emotional toll on her. It was essential for the mother to receive individual community mental health and out-patient recovery services and for the child to continue the mother-child psychotherapy and the therapeutic child care. The therapist assured the mother of the progress that she and her child had made in the first 6 months of treatment and that the recent changes showed that they had regressed under the current stress and could adapt to these changes with ongoing therapeutic support.

In the next 6 months of mother-child psychotherapy the therapist worked with the mother and the child care teachers to continue with the strategies that were effective in assisting the child to develop new models of trust. During this phase of treatment, the mother revealed that her confidence to care for her son improved and she was better at regulating her own emotions and meeting his needs. She learned how to prepare nutritional meals in the recovery program and her son was no longer highly aroused around food. He was sleeping throughout the night in his own bed and had made substantial developmental gains, entering childcare ready to play. The mother brightens when talking about their close relationship and the sureness she has gained in caring for him. She believes that her childhood would have turned out differently if her parents had received substance use and therapeutic support.

7. Conclusion

This article represents our clinical work with mothers and young children who suffer extraordinary stress from the effects of substance use and mental health

illness. The mother-infant psychotherapeutic treatment and developmental guidance provided to the mother and the program staff helped to regulate and restructure the child's nervous system. Feeling affirmed and supported, the child developed an emerging reorganized protective structure from which to safely resolve his fears and explore social relationships.

We conclude the mother and young child can follow a course of recovery from early traumatic experiences within the context of favorable conditions, thereby, interrupting the intergenerational dynamics of early relational trauma. A critical variable is staff who serve as a secure base whom the mother and child can trust and who is available to provide interactive regulatory attunement. It was by virtue of the therapist's ability to regulate the mother's and child's dysregulated affective states that they seemed to endure the strain of recovering from substance use and mental health challenges within this particular therapeutic milieu.

Author details

Linda M. Perez[1]*, Suzi E. Desmond[1] and Cheryl J. Sundheim[2]

1 Epiphany Center, San Francisco, CA, United States

2 CS Consulting Services, San Francisco Bay Area, CA, United States

*Address all correspondence to: lmperez@mills.edu

References

[1] van der Kolk, B. A. (2014). The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma. Penguin Books

[2] Nicholson, J., Perez, L., Kurtz, J. (2018). "Trauma Informed Practices for Early Childhood Educators: Relationship-Based Approaches That Support Healing and Build Protective Factors in Young Children. NY: Routledge/Taylor & Francis.

[3] American Addiction Center, 2020. Alcohol and Drug Abuse Statistics. American Addiction Centers.org

[4] Perez, L. (2009). Intergenerational dynamics of trauma. Journal of Infant, Child, and Adolescent Psychotherapy, 8, 156-168.

[5] Najavits, L. M. (2009). Seeking safety: An implementation guide. In A. Rubin & D. W. Springer (Eds.), The Clinician's Guide to Evidence-Based Practice. Hoboken, NJ: John Wiley.

[6] Beebe, B., Lachmann, F. & Jaffe, J. (1997). Mother-infant interaction structures and presymbolic self and object representations. Psychoanalytic Dialogues, *7*(2), 1330182.

[7] Bowlby, J. (1969/1982). *Attachment and Loss: Vol. 1. Attachment*. New York: Basic Books.

[8] Stern, D. (1985). *The Interpersonal World of the Infant*. New York: Basic Books.

[9] Lieberman, Ippen, & Van Horn (2005). Toward evidence-based treatment: Child-parent psychotherapy with preschoolers exposed to marital violence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(12), 1241-1248.

[10] Ainsworth, M. D. S. (1967). *Infancy in Uganda. B*altimore, MD: Johns Hopkins Press.

[11] George, C., & Solomon, J. (2008). The caregiving system: A behavioral systems approach to parenting. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (2nd ed., pp. 833-856). New York: Guilford Press.

[12] Bowlby, J. (1988). *A Secure Base: Parent Child Attachment and Healthy Human Development*. New York: Basic Books.

[13] Porges, S. (2011). The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment Communication, Self-Regulation. New York: Norton

[14] Solomon, J. & George, C. (2011). The disorganized attachment-caregiving system: Dysregulation of adaptive processes at multiple levels. In J. Solomon & C. George (Eds.), *Disorganize attachment & caregiving* (pp. 3-51). New York: Guilford Press.

[15] Bowlby, J. (1980). *Attachment and Loss: Vol. 3. Loss: Sadness and Depression*. New York: Basic Books.

[16] Bowlby, J. (1973). *Attachment and Loss: Vol. 2. Separation: Anxiety and Anger*. New York: Basic Books.

[17] Hesse, E. & Main, M. (1999). Second-generation effects of unresolved trauma as observed in non-maltreating parents: Dissociated, frightened, and threatening parental behavior. Psychoanalytic Inquiry, *19*, 481-540.

[18] Hesse, E., Main, M., Abrams, K. Y. & Rifkin, A. (2003). Unresolved states regarding loss or abuse can have "second-generation" effects:

Disorganization, role inversion, and frightening ideation in the offspring of traumatized, non-maltreating parents. In M. F. Solomon & D. J. Siegel (Eds.), *Healing Trauma. Attachment, Mind, Body, and Brain*. (pp. 57-106). New York: Norton.

[19] Schore, A. N. (2003). Early relational trauma, disorganized attachment, and the development of a predisposition to violence. In M. F. Solomon & D. J. Siegel (Eds.), *Healing Trauma: Attachment, Mind, Body, and Brain* (pp. 107-167). New York: Norton.

[20] Tarrullo, A. R. & Gunnar, M. R. (2006). Child maltreatment and the developing HPA axis. Hormones and Behavior, *50*(9), 632-639.

[21] Cozolino, L. (2006). *The Neuroscience of Psychotherapy: Building and Rebuilding the Human Brain*. New York: Norton.

[22] Cozolino, L. (2012). *The Neuroscience of Human Relationships: Attachment and the Developing Social Brain*. New York: Norton.

[23] Perry, B., Pollard, R. A., Blakely, T. L., Baker, W. L., & Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and "use-dependent" development of the brain: How "states" become traits. Infant Mental Health Journal, *16*, 271-291.

[24] Stein, P. T. & Kendall, J. (2004). *Psychological trauma and the developing brain. Neurologically Based Interventions for Troubled Children*. New York: The Haworth Maltreatment and Trauma Press.

[25] Balbernie, R. (2001). Circuits and circumstances: The neurobiological consequences of early relationship experiences and how they shape later behaviour. Journal of Child Psychotherapy, *27*(3), 237-255.

[26] Perez, L. & Sundheim, C. (2018). Mother-infant psychotherapy: Informed by Polyvagal theory. Journal of Infancy, Childhood, and Adolescent Psychotherapy. *Vol.*

[27] Perez, L. & Sundheim, C. (2015) Innovative clinical practices that treat early relational trauma. Journal of Infancy, Childhood, and Adolescent Psychotherapy. Vol. 14:2, 174-187