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# Issue Brief

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# Eye Movement Desensitization and Reprocessing (EMDR) Therapy: A Promising Treatment for Connecticut Children Impacted by Traumatic Events

Left to right: EMDR clinician Melissa Aiello and client Jazlyn Coates

Exposure to potentially traumatic events (PTEs) affects the health and development of millions of children yearly, leading some to characterize it as a public health epidemic.[1,2] Research indicates that more than 60 percent of children in the United States were victims of violence or witnessed a violent event in the past year [3] and nearly two-thirds of youth will experience exposure to a potentially traumatic event by the age of 18 years.[4,5] Research has established connections between exposure to potentially traumatic events during childhood and adolescence and psychological and behavioral difficulties that can extend into adulthood.[6,7,8] Children impacted by traumatic events can experience adverse effects on their physical, cognitive, emotional, and social development.[1] Exposure to traumatic events as a child is associated with more severe health and mental health problems than adult exposure, establishing a clear need to intervene early to prevent more serious difficulties.[9] Even in the face of evidence that the impact of childhood exposure to trauma is significant and can be lifelong, only about 16 percent of children who exhibit mental health symptoms receive treatment.[10,11]

The Substance Abuse and Mental Health Services Administration (SAMHSA) defines traumatic events as "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and has lasting adverse effects of the individual's functioning and mental, physical, social, emotional, or spiritual well-being," (SAMHSA, 2014, p. 7).[12] Examination of SAMHSA system of care national dataset reveals that 75 percent of youth who presented for publicly funded mental health treatment had been exposed to at least one traumatic event.[13] This is consistent with the rate of exposure for children who receive publicly behavioral health care coordination services in Connecticut where 76.6 percent of youth over the age of 11 years reported at intake that they had been exposure to at least one traumatic event.[14]

## Treatment to Reduce the Impact of Childhood Exposure to Trauma

The literature reveals that there are three primary outpatient treatments used for children impacted by trauma exposure, Trauma-Focused Cognitive Behavioral Therapy[15], psychodynamic or relationship therapies such as Child-Parent Psychotherapy[16] (CPP) and Eye Movement Desensitization and Reprocessing[17] (EMDR).

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**Trauma-Focused Cognitive Behavior Therapy** (TF-CBT) is an evidenced-based treatment geared to help children and youth overcome the impact of their trauma exposure through the processing of traumatic memories, developing effective coping strategies to reduce traumatic memories and problem behavioral and the developing of interpersonal and coping skills. It also includes a component for the child's caregiver to help them develop skills related to positive parenting, behavioral management, stress management and effective communication.[15,18] Using federal grant dollars and state funding, the Connecticut Department of Children and Families (DCF) has invested resources to build the network of TF-CBT therapists to serve children and youth through 42 community mental health providers. Clinicians receive on-going training and support through a TF-CBT Learning Community hosted by the Child Health and Development Institute.[19]

**Child-Parent Psychotherapy** (CPP) is an evidenced-based treatment for young children up to 5 years of age who have been exposed to traumatic events and their caregiver. CPP focus on the caregiver-child dyad, how the trauma and the caregivers' history affect this relationship, and the child's development. Treatment also examines aspects of the family life (e.g., poverty, culture, neighborhood) that may impact the caregiver-child relationship.[16] Through funding from Connecticut DCF and foundations, CPP has been disseminated throughout Connecticut by Child FIRST.[20]

**There's a big difference between what my life is now than what my life was before.**

- Jazlyn Coates

**Eye Movement Desensitization and Reprocessing** (EMDR) is an empirically-based treatment for adults with posttraumatic stress disorder and research has begun to emerge documenting the effectiveness of EMDR with children 6 to 18 years of age. EMDR uses eye movements or other bilateral stimulation concurrently while the client focuses on specific aspects of the traumatic event including, any negative thoughts they have about the event and their physical sensations. This process is repeated numerous times until the client no longer reports distress related to the targeted memory.[17,21] A recent review of the literature on the efficacy of EMDR with children demonstrated that, while the published studies were limited due to sample size and lack of randomization, all revealed significant reductions in PTSD and other trauma related symptoms after treatment with EMDR.[22] While Connecticut DCF lists EMDR as an effective treatment for child traumatic stress,[23] systematic implementation has not yet occurred.

## Implementing EMDR for Children and Youth in Connecticut

The Village for Families and Children, Inc. (The Village) is a community-mental health center that serves primarily ethnic-minority and immigrant children and families in the Hartford area who have significant histories of poverty, exposure to community violence, parental substance abuse and psychiatric difficulties, and lack familiarity with the mental health service system. Many of the children and families served by the Village have been exposed to potentially traumatic events prior to program intake including: abuse, neglect, exposure to domestic violence, exposure to community violence, chronic poverty, unstable housing, or out of home placement. While the Village is part of the DCF funded learning communities for TF-CBT and Child FIRST, Village leadership and staff recognized that there these treatments were not the right fit for some of the population they serve as some caregivers could not attend treatment sessions and some families could not commit to longer courses of treatment. In light of this, the Village sought funding to expand the trauma services offered including the implementation of EMDR.

In the fall of 2012, the Village was awarded a 4-year grant from SAMHSA that provided funding to build the capacity of Village and other area staff to implement EMDR with children aged 6 to 18 years impacted by exposure to traumatic events. Between January 2013 and April 2015, a total of 55 clinicians participated in training sponsored by the Village and provided by the EMDR Humanitarian Assistance Programs (EMDR-HAP). Each clinician participated in two EMDR trainings and received consultation with an EMDR consultant.

The Village also partnered with a team from The Consultation Center at Yale University School of Medicine led by Joy S. Kaufman, Ph.D. to evaluate the impact of EMDR on children served by Village clinicians. This evaluation included clinicians, trained by the Yale team, administering measures to the caregiver and the youth (age 11 years and older) to assess trauma history, PTSD symptoms, child problem behaviors, parenting stress and caregiver depression at intake into services, either at discharge or 6-months post-intake and at 12-months post-intake if the youth is still receiving EMDR treatment.

## Who Received EMDR at the Village

A total of 278 children and youth received EMDR during the study period (October 2012 – October 2016). Of the children served, 54 percent were female, average age was 13 years (range 6 years to 19 years of age) with about half (48%) between 5 years and 12 years of age and half (50%) were 13 years to 18 years old. Mirroring the population of the neighborhoods were the Village is located, the majority of the children and youth served were from racial/ethnic minority backgrounds with 62 percent Latinx and 26 percent Black/African American. Of these families, 143 met the eligibility criteria to be included in an assessment of EMDR outcomes. Eligibility was defined as having received at least three EMDR sessions, having outcome data at discharge/six-month follow-up and having agreed to participate in the evaluation. There were no significant differences between those children included in the outcome study and those who did not meet these criteria.

Children and youth who received EMDR at the Village were in treatment an average of 48 weeks and received a total of 33 treatment sessions, 10 of which were EMDR sessions. Non-EMDR treatment sessions included individual counseling, family therapy, art therapy and group therapy.

## What is the Trauma History of Children and Youth who Received EMDR

The Trauma History Screener (THS)[24] was used to assess a child's experience of a variety of potentially traumatic events, including exposure to those that represent family-related trauma and those that represent non-family-related trauma.[25] The THS was administered at intake to the caregivers of youth who were receiving EMDR at the Village.

On average, the youth receiving EMDR through the VCTC had been exposed to an average of 6.5 different types of potentially traumatic events at program enrollment, including 2.9 family-related events and 3.6 non-family related events. It is important to note that the THS assesses whether a young person has ever been exposure to each type of event; however, it does not capture the frequency of that exposure. As shown below, the most frequent types of family-related events reported included having been unexpectedly separated from someone who s/he depends on for love or security for more than a few days (70%), having seen a family member get arrested or in jail (54%), and having been physically hurt or threatened by someone (46%). The most frequent types of non-family-related events included having known someone who died (70%) and having seen or heard people physically fighting or threatening to hurt each other (66%).

**Table 1. Traumatic Events Reported at Intake**

*Has the child ever....*

| | |
|---|---|
| **Family-Related Traumatic Events** | |
| Been unexpectedly separated from someone who s/he depends on for love or security for more than a few days | 70% |
| Had someone close to him/her try to kill or hurt themselves | 24% |
| Been physically hurt or threatened by someone (typically family member) | 46% |
| Been kidnapped by somebody | 2% |
| Seen a family member get arrested or in jail | 54% |
| Had a time in his/her life when s/he did not have the right care (e.g, food, clothing, housing) | 32% |
| Been forced to see or do something sexual | 26% |
| Seen or heard someone else being forced to do something sexual | 10% |
| **Non-Family-Related Traumatic Events** | |
| Been in or seen a very bad accident | 26% |
| Had someone s/he knows been so badly injured or sick that s/he almost died | 33% |
| Known someone who died | 70% |
| Been so sick or hurt that you or the doctor thought s/he might die | 10% |
| Been robbed or seen someone get robbed | 11% |
| Been in or seen a hurricane, earthquake, tornado, or bad fire | 22% |
| Been attacked by a dog or other animal | 14% |
| Seen or heard people physically fighting or threatening to hurt each other | 66% |
| Seen or heard somebody shooting a gun, using a knife, or using another weapon | 31% |
| Watched people using drugs | 29% |
| Seen something that was very scary or where s/he thought somebody might get hurt or die | 20% |

When asked at intake which traumatic event was most impactful for the child, caregivers reported that it was the child being separated from someone who cared for them for more than a few days (30%), knowing someone who died (19%), and being forced to see or do something sexual (11%). Youth aged 11 years and older reported that the most impactful traumatic events was being separated from someone who cared for them (18%), knowing someone who died (19%), being forced to see or do something sexual (11%) and being physically hurt or threatened (10%).

**Outcomes of Receiving EMDR at the Village.** At intake and discharge/6-month assessment, caregivers were also asked to complete the Child Behavior Checklist[26] (CBCL) to assess their child's internalizing problem behaviors (i.e., withdrawal, somatic complaints, anxiety, and depression) and externalizing behaviors (i.e., aggression and conduct problems). As can be seen in Figure 1 there was a statistically significant reduction in overall problem behaviors and in internalizing and externalizing problem behaviors between intake and discharge/6-month follow-up for those children and youth who received EMDR at the Village.

**Figure 1. Problem Behavior Scores**

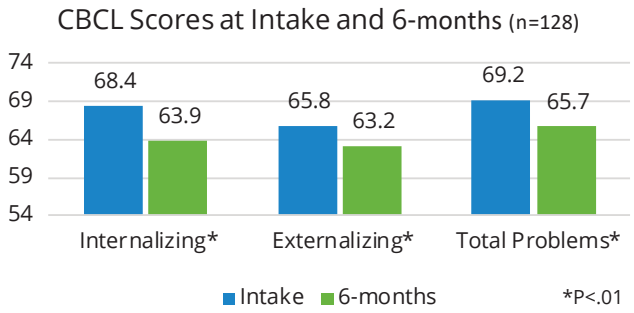
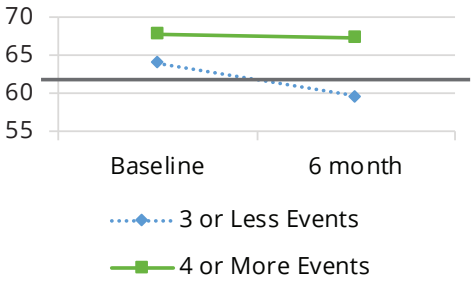


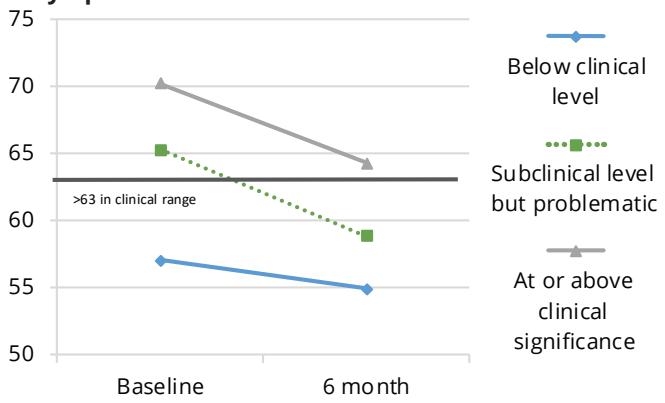

**Figure 2. Externalizing Behavior and Non-Family Traumatic Events**




We also examined the scores on the CBCL scales and how they relate to the child's exposure to potentially traumatic events. We found that the more non-family-related traumatic events a child was exposed to, the more externalizing problem behaviors their caregiver reported at 6-months. As is shown in Figure 2, we separated the children in to two groups: those who had been exposed to 3 or less potentially traumatic non-family-related events and those who had been exposed to 4 or more potentially traumatic non-family-related events. We found that those who were exposed to 3 or less events had significantly greater reductions (i.e., improvements) in externalizing problem behaviors than those who had been exposed to 4 or more events. The scores on the CBCL externalizing behaviors scale also dropped to below the clinical cut-off at 6 months for the children exposed to 3 or less events, while the scores remained above this cut-off for children exposed to 4 or more potentially traumatic events. These results demonstrate that exposure to more types of non-family types of potentially traumatic events was related to more externalizing problem behaviors at intake and over time.

Given the relationship between externalizing problem behavior scores and exposure to non-family traumatic events, we also examined the relationship between externalizing problem behavior scores and symptoms of posttraumatic stress disorder as measured by the UCLA PTSD Reaction Index.[27]

**Figure 3. Externalizing Problem Behavior and PTSD Symptoms**




As see in Figure 3, we found that those children in the at or above clinical significance category for PTSD symptoms had greater gains on externalizing problem behaviors than those in the below clinical level category. In other words, those children with more severe PTSD symptoms improved more on externalizing problem behaviors from intake to 6-month follow-up than those with less severe symptoms. Figure 3 also reveals that although those with more severe symptoms had greater improvement, they also had more problem behaviors at program enrollment, so that their improvement at 6 months meant that they still exhibited more problem behaviors than those with less severe symptoms.

## Impact of EMDR for Children Served at the Village

While preliminary due to the small sample size and the lack of comparison group, the results of this evaluation are promising and mirror what has been demonstrated in the literature, that children and youth who receive EMDR have significant reductions in trauma-related symptoms.

At intake to services at the Village, caregivers reported that their child had a significant history of exposure to potentially

traumatic events, with an average exposure rate of 6.5 different types of events. This is a significant rate of exposure especially given that they may have been exposed to each type of event numerous times. After receiving an average of 10 EMDR sessions, caregivers reported a significant decrease in total problem behaviors and in internalizing (e.g., withdrawal, somatic complaints, anxiety, and depression) and externalizing problem behaviors (e.g., aggression and conduct problems). These decreases in symptoms mean that the youth were less likely to exhibit behavioral problems at school and at home enabling them to more fully engage in their education and have more positive interactions with their primary caregivers.

We also observed significant decreases in externalizing problem behaviors for those children exposed to non-family types of potentially traumatic events. This finding is especially important for this sample of youth who live in neighborhoods with high rates of community violence, as it indicates that EMDR may be a short-term treatment option that decreases the impacts of this exposure.

Finally, results demonstrated that at intake, one-third of the youth who received EMDR had a clinically significant level of trauma symptoms. This group of youth also exhibited significantly more externalizing problem behaviors at baseline compared to those with trauma symptoms below the clinical level. While all the children improved over time, those children who had higher levels of trauma symptoms improved at a faster rate than those with lower levels, suggesting that receiving EMDR helped to reduce symptoms for those youth most impaired at intake.

## Implications for the Connecticut Service Array

Using federal grant dollars, the team at the Village demonstrated success in implementing EMDR for youth at risk for poor developmental outcomes who are from low resource communities. Youth engaged in the treatment and experienced significant reductions in symptoms enabling them to better engage in family, school and community.

While Connecticut has statewide implementation of evidenced-based treatments for children and youth exposure to trauma such as TF-CBT and CPP, there are some unique aspects of EMDR that may make it a better fit for some youth. EMDR often has a shorter duration of treatment, which may make it easier for families experiencing stress to be able to complete the course of treatment. In addition, there is less focus on verbal processing of the trauma, which may be easier for some children to engage in. EMDR does not require caregiver involvement, which may make it a good fit for children and youth whose caregivers cannot be involved in their child's treatment due to work obligations or custody issues. Finally, anecdotal evidence suggests that EMDR results in lower levels of vicarious trauma exposure for clinicians because there is not extensive processing of the trauma event(s).

The Connecticut DCF has invested significant resources in providing trauma treatment for children and youth in Connecticut. While the Department lists EMDR as an effective trauma treatment, state funding has not been available to expand the delivery of EMDR beyond the Hartford area. It is hoped that the successful implementation of EMDR at the Village provides evidence of the need for further expansion of this model in publicly funded clinics along with additional evaluation to determine effects for Connecticut's children.

**I'm a strong person; I'm a great person - all because of EMDR.**

- Asha Nahar

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