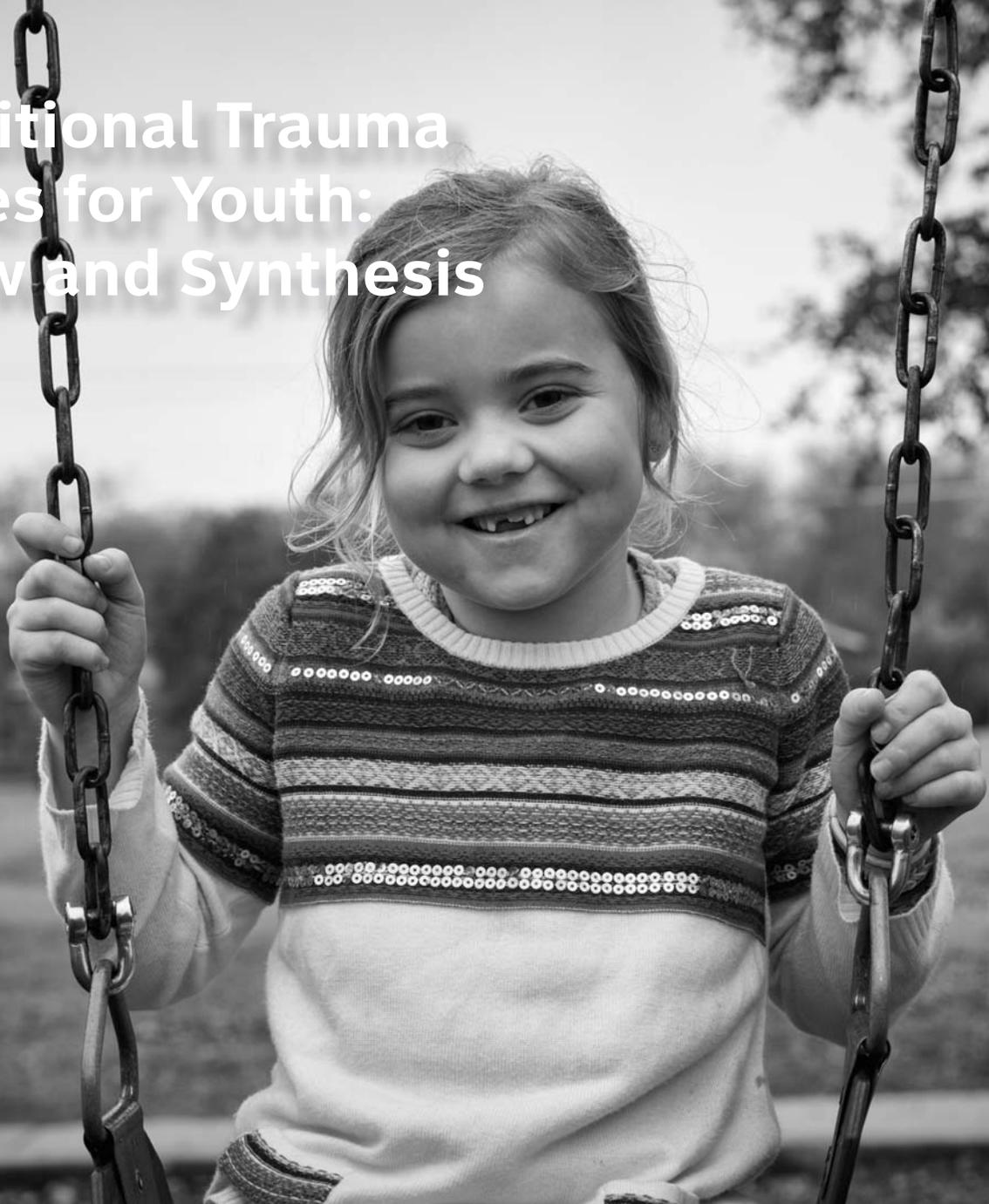


# Nontraditional Trauma Therapies for Youth: A Review and Synthesis



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## Nontraditional Trauma Therapies for Youth: A Review and Synthesis

### Executive Summary

- Nontraditional forms of therapy are popular among clinicians treating trauma-exposed children and children involved with the child welfare system.
- Generally, these nontraditional forms of therapy lack sufficient empirical research to know (a) whether the intervention is effective, (b) which forms of the intervention are preferable, and (c) what populations or presenting concerns might benefit from the intervention.
- The current review examined the empirical evidence for four types of nontraditional therapy:
  - Eye Movement Desensitization and Reprocessing (EMDR)
  - Animal-Assisted Therapies (AAT)
  - Creative Arts Therapies (CAT)
  - Movement-Focused Therapies (MFT)
- Results indicated that EMDR demonstrates consistent positive outcomes for adults and children on symptoms such as posttraumatic stress and depression. However, the “nontraditional” aspect of EMDR, known as bilateral stimulation, appears ineffective and unnecessary for treatment success.
- For both AAT and CAT, there is limited evidence to suggest that these interventions are effective. The positive results that were obtained may be due to other factors, such as social interactions provided through the group nature of the programs tested.
- MFT was found to have the most limited empirical basis as most recent studies appeared to show no effect or minimal impact from the treatment, despite methodological limitations that likely benefitted the MFT program. Similar to AAT and CAT, positive results identified could be the result of the group nature of the program.

## Introduction

Mental health care for children within the child welfare system is receiving increasing attention, with the focus primarily on the dissemination and implementation

of evidence-based treatments. However, many practicing clinicians find value in the utilization of treatment



approaches that are not typically deemed evidence-based by researchers and policymakers. These “non-traditional therapies” include such interventions as Eye Movement Desensitization and Reprocessing (EMDR), animal-assisted therapies, creative arts therapies, and movement-focused therapies. A recent nationwide survey of clinicians who treat maltreated children showed that some of these interventions are either commonly utilized (e.g., 55% regularly utilize art therapy) or clinicians are interested in learning more about them (e.g., 34% are interested in receiving training in EMDR; Allen, Gharagozloo, & Johnson, 2012). Although favored by many clinicians, these interventions are oftentimes rarely tested in clinical trials and few clinicians are aware of the quality of scientific evidence available regarding these interventions. This white paper provides a review of the current empirical status of several nontraditional therapies that are either commonly used or becoming more popular for use among the child welfare population.

## Methodology

A thorough literature search was conducted using the PsycINFO and Published International Literature on Traumatic Stress (PILOTS) databases to identify clinical trials of various treatment approaches. A specific focus was on identifying randomized controlled trials (RCTs) as this methodology is considered the gold standard by which to test an intervention. In addition, RCTs using a control group where participants received some form of service were given greater weight than RCTs using a waitlist control group. This is in recognition that waitlists cannot account for the delivery of nonspecific treatment factors, such as therapeutic rapport and expectancy effects, which may result in a particular intervention appearing effective only because of the provision of these nonspecific factors. Comprehensive meta-analyses and systematic reviews were emphasized when available. Although ample clinical case studies and non-peer reviewed materials (i.e., books) are available, these sources were not reviewed as they are rarely subjected to scientific peer review and the effectiveness of the intervention is typically judged by the clinician implementing treatment. Once all sources were gathered, the strength of evidence for each “non-traditional therapy” was compared to the standards for evaluating psychosocial interventions for children provided by Silverman and Hinshaw (2008). Supplemental rankings from other reviews (e.g., California Evidence-Based Clearinghouse for Child Welfare [CEBC] and SAMHSA’s National Registry of Evidence-Based Programs and Practices [NREPP]) were provided when available.

	Authors' Rating	CEBC Rating	NREPP Rating
<b>Eye Movement Desensitization and Reprocessing (EMDR)</b>	Level 1 (Well-Established Treatment)* <i>*bilateral stimulation not supported</i>	Scientific Rating 1	Quality of Research 3.2
<b>Animal-Assisted Therapies (AAT)</b> Equine-Assisted Psychotherapy (EAP) Canine-Assisted Psychotherapy (CAP)	Level 4 (Experimental Treatment)	not rated	not rated
<b>Creative Arts Therapies (CAT)</b> Music Therapy (MT) Art Therapy (AT)	Level 4 (Experimental Treatment)	not rated	not rated
<b>Movement-Focused Therapies (MFT)</b> Dance Therapy (DT) Adventure Therapy (AVT)	Level 4 (Experimental Treatment)	not rated	not rated

Legend
<ul style="list-style-type: none"> <li>• Authors' Rating adapted from Silverman and Hinshaw (2008): <ul style="list-style-type: none"> <li>○ Level 1 Well-Established Treatment</li> <li>○ Level 2 Probably Efficacious Treatment</li> <li>○ Level 3 Possibly Efficacious Treatment</li> <li>○ Level 4 Experimental Treatment</li> <li>○ Level 5 Treatment of Questionable Efficacy</li> </ul> </li> <li>• California Evidence-Based Clearinghouse (CEBC)</li> <li>• National Registry of Evidence-Based Programs and Practices (NREPP)</li> </ul>

Other Key Acronyms
<ul style="list-style-type: none"> <li>• Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)</li> <li>• Randomized Controlled Trials (RCTs)</li> <li>• Post-Traumatic Stress Disorder (PTSD)</li> <li>• Locus of Control (LOC)</li> </ul>

## Results

### A. Eye Movement Desensitization & Reprocessing (EMDR)

**Theoretical Rationale:** EMDR is an intervention targeting posttraumatic stress disorder (PTSD) and associated symptoms following exposure to various traumatic events. First described in the late 1980s, EMDR displayed numerous similarities to other interventions focused on treating the sequelae of trauma, including the use of exposure-based exercises and cognitive change techniques. The unique, and controversial, aspect of EMDR was the inclusion of a technique called “bilateral stimulation.” Bilateral stimulation is the process of having the client perform some type of sensory-based task that activates both sides of the brain while s/he is actively thinking of the traumatic event and any negative thoughts associated with that experience. The original technique of bilateral stimulation involved having the client visually track the movement of the clinician’s fingers as the clinician rapidly and rhythmically moved them from one side of the client’s visual field to the other (hence the name of EMDR). Alternative methods of bilateral stimulation include having the client alternate tapping their hands on the ground or table, or making use of other forms of auditory or tactile stimulation. Theoretically, bilateral stimulation is thought to prompt biological activity in the brain that allows for the “release” of the traumatic memory and negative thoughts. In this manner, EMDR clinicians and advocates suggest that EMDR is able to enact change at the biological level thereby improving treatment effectiveness in a way not possible with more traditional forms of treatment. Although originally developed and tested with adults, EMDR is being increasingly employed with children.

**Empirical Evidence:** Early research using case studies and non-controlled trials led many advocates to assert the efficacy of the intervention as well as the validity of bilateral stimulation. Later studies began using more rigorous RCTs and utilized control groups receiving other treatments for posttraumatic stress. Spates, et al. (2009) summarized the findings of these more stringent studies. They identified 7 studies with adult samples that demonstrated significant

improvements on posttraumatic stress and other symptoms as a result of EMDR. However, these studies also generally showed that EMDR was no more or less effective than similar interventions utilizing exposure-based and cognitive change techniques. Spates, et al. also reviewed evidence from dismantling studies examining the incremental benefit of the bilateral stimulation technique. These studies directly compared two versions of EMDR, one with bilateral stimulation and one without, to determine whether this technique enhanced treatment outcome. Their review, as well as other reviews and meta-analyses (Chemtob, et al., 2000; Davidson & Parker, 2001), failed to find any significant benefit to the use of bilateral stimulation. Additional studies published since Spates, et al. (2009) and reviewed for this white paper offered similar conclusions.

The use of EMDR with children is less well studied. Rodenburg, et al. (2009) conducted a meta-analysis of clinical trials of EMDR with children and identified 7 studies, which collectively included only 115 children. They concluded that children receiving EMDR demonstrated significant improvement on posttraumatic stress. Only two of the studies in this meta-analysis utilized a defined and monitored control group intervention, and in both cases the control intervention was limited to psychoeducation and coping skills training. Spates, et al (2009) largely reviewed the same literature as this meta-analysis and generally agreed with the conclusions: EMDR appears effective with children, but it is not possible to determine if the effectiveness is due to the components that EMDR shares with other interventions or whether the unique aspects of EMDR enhance treatment effectiveness. A notable recent study directly compared children who received EMDR or Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) for the treatment of posttraumatic stress (Diehle, et al., 2015). With nearly 20 well-conducted RCTs showing favorable results, TF-CBT is generally considered the gold standard intervention for the treatment of posttraumatic stress among children. The results of the Diehle, et al. study showed that both EMDR and TF-CBT were effective in significantly reducing posttraumatic stress among children, and that neither intervention achieved better results than the other. This study supports the effectiveness of EMDR as a treatment for child posttraumatic stress; however, considering that TF-CBT utilizes exposure-based and cognitive change techniques similar to

EMDR, this study also suggests that unique aspects of EMDR (i.e., bilateral stimulation) may not improve effectiveness. Other studies published in the past few years generally produced results similar to those discussed here.

**Synthesis and Recommendations:** The evidence reviewed here suggests that EMDR is a well-established intervention for reducing posttraumatic stress among trauma-exposed adults and children (Rating: Level 1). Similar ratings are found on CEBC (Scientific Rating = 1) and NREPP (Quality of Research = 3.2). Importantly, however, the evidence reviewed here does not suggest that the unique aspects of EMDR, specifically bilateral stimulation, are an important or necessary component of successful treatment. EMDR does not tend to perform better or worse than other evidence-based treatments and dismantling studies suggest that the effectiveness of EMDR is not weakened or enhanced by the inclusion of bilateral stimulation.

Many clinicians prefer EMDR, and there is little reason to discourage their use of the intervention. However, the evidence reviewed here suggests that investing resources in training clinicians in EMDR as well as similar treatments (e.g., TF-CBT) is unnecessary. For agencies and clinicians who are not yet trained in a trauma-focused intervention for children and adolescents, EMDR may be a suitable approach; however, agencies and clinicians may be more comfortable with an approach that is less controversial and more thoroughly researched with children (i.e., TF-CBT). In addition, the investment of resources in the training and implementation of aspects unique to EMDR (e.g., advanced techniques of bilateral stimulation) appears unlikely to yield significant benefit.

## **B. Animal-Assisted Therapies (AAT)**

**Theoretical Rationale:** Broadly defined, AAT is the integration of specially trained animals into the treatment process. Clinicians and/or the handlers of the animals typically complete specialized training focused on the therapeutic uses of animals. Multiple rationales are offered for the integration of animals in treatment. For instance, AAT may be promoted as a way to calm anxiety thereby allowing children to discuss distressing topics, or providing a

nonjudgmental companion that allows the child to feel valued, or to teach children adaptive skills such as responsibility and respect. Unfortunately, these rationales appear to largely rest on a limited review of the research or invoke outdated theories of etiology. For instance, some proponents of AAT highlight research suggesting reduced stress and other health benefits of pet ownership; however, a recent comprehensive review of this topic published in a prominent scientific journal found weak evidence for such a relationship (Herzog, 2011). As of this writing, there is not a commonly accepted rationale for AAT that is based in the current scientific knowledge regarding the etiology and treatment of child emotional and behavioral concerns.

**Empirical Evidence:** Evaluating the empirical research on AAT is difficult for two primary reasons. First, many studies of AAT measure results immediately after sessions and examine outcomes such as general well-being and client enjoyment/acceptability. These studies do not examine whether AAT creates lasting change for the concerns of the client (e.g., anger, posttraumatic stress). Second, many studies integrate animals with other treatment components and compare the treatment to a waitlist. It is not possible under these conditions to determine if the addition of the animals enhanced treatment beyond the effect of the other components. We provide a review of the overall AAT literature below, before considering the literature specific to two of the more widely used animals in AAT: horses and dogs.

Maujean, et al. (2015) recently published a systematic review of RCTs examining the impact of AAT on psychosocial outcomes. They identified only two RCTs that utilized children as participants and both trials examined therapeutic horse-riding, a specific equine-assisted treatment known as hippotherapy. The first study found that children with autism who participated in hippotherapy demonstrated improved social functioning in comparison to other children with autism who received no intervention. The second study utilized children with cerebral palsy and found no significant benefit of hippotherapy on quality of life or gross motor function when compared to a wait-list. The Maujean et al. (2015) review included 5 other RCTs completed with adults and the authors concluded that the weight of the evidence suggests that AAT may be useful for some populations for some

purposes. However, the authors cautioned that most sample sizes were small and the only positive results were obtained in group treatment settings. This suggests that a social support or social interaction mechanism may have resulted in the observed positive changes and not the use of animals.

**Equine-Assisted Psychotherapy (EAP).** In addition to the two EAP studies identified by Maujean et al., (2015), we identified a third relevant RCT. Frederick, et al., (in press) randomized 26 at-risk adolescents to either a program where they interacted with, but did not ride horses, or to a waitlist. Results suggested that those receiving the EAP intervention displayed increased hope and lower depression after treatment compared to the control group; however, the protocol appeared to integrate the horses into a group treatment program and the effect of the inclusion of horses is unclear. A recent systematic review showed that EAP studies typically suffer from significant methodological flaws and that the available studies collectively are unable to demonstrate that the inclusion of horses in treatment enhances outcomes (Anestis, et al., 2014). These authors concluded that EAP lacks sufficient scientific merit to promote its use.

**Canine-Assisted Psychotherapy (CAP).** We identified only 3 RCTs that examined the impact of CAP on mental health outcomes. Two of the studies utilized small samples and found that CAP reduced anxiety among hospitalized children receiving painful medical procedures. The third study was unable to demonstrate that CAP could improve social behavior among children with autism. To find studies more relevant to the child welfare population, we loosened the criteria and searched for nonrandomized controlled trials of CAP employing maltreated children. We located one additional study (Dietz, et al., 2012), which compared three groups of sexually abused children involved in a group treatment program. One group received a protocol focused primarily on body safety skills (No Dogs), a second group received the same treatment but included visits by dogs (Dogs), and a third group included the dogs and stories about the dogs designed to prompt conversation about the same topics included in the other groups (Dogs/Stories). The authors' analyses suggested that the Dogs/Stories group was superior to the other two conditions and concluded that CAP is effective for treating sexually abused children. However, mean pre-treatment scores show that the

average child in the study was not clinically elevated on any of the 6 outcomes assessed at the beginning of treatment; as such, the intervention was actually treating children *not* displaying emotional or behavioral concerns. Combining the non-clinical nature of the sample with the lack of randomization to conditions, this study is insufficient to suggest therapeutic benefit for CAP.

***Synthesis and Recommendations:*** The lack of a commonly accepted treatment rationale or manual that clearly explicates the AAT process is a significant drawback to the empirical testing and clinical utility of AAT. In addition, the contradictory findings of those studies that are available suggest that AAT is best considered at this time an experimental treatment (Rating: Level 4). As a result of these shortcomings, AAT is not rated by CEBC or NREPP.

Given these conclusions, we cannot recommend that AAT be considered a viable treatment option for the emotional and behavioral concerns of children. Perhaps it is best to consider AAT an adjunct service that provides a pleasurable experience for children that may encourage social interaction with other children. We caution policymakers to consider opportunity cost when evaluating AAT. In other words, resources and time invested in AAT may detract from the implementation of interventions with sufficient empirical support to suggest clinical benefit. It is advisable that these other interventions take precedence over AAT.

## C. Creative Arts Therapies (CAT)

***Theoretical Rationale:*** CAT is the use of visual arts media as the vehicle for treatment. Clinicians typically complete specialized training focused on the therapeutic uses of creative art mediums. Several explanations are proffered for the use of CAT as a treatment modality: children are incapable of verbally describing their traumatic experiences and CAT allows children to nonverbally express their emotions and thoughts; children reenact distressing events through artistic play, thereby providing the therapist with valuable insight for treatment; or CAT acts as a buffer, providing children a way to process traumatic events indirectly. Unfortunately, these rationales rely heavily on case studies and many of these contentions are disproven by research. For instance, developmental

scientists have repeatedly demonstrated that most children are capable of verbally discussing traumatic events in a developmentally appropriate way when given the opportunity. As of this writing, no commonly accepted rationale for CAT is available that is **congruent with the current scientific evidence.**

**Empirical Evidence:** The majority of research on CAT lacks sufficient methodological rigor to provide conclusive results as to the approach's efficacy. In addition, many researchers integrate CAT with other treatment components and compare the treatment to a waitlist, thereby rendering it impossible under these conditions to determine whether CAT provided significant positive change. Lastly, a multitude of creative mediums are used for CAT; as such, it cannot be determined whether favorable or unfavorable results are limited to a specific type of creative media or generalize across mediums. The review below examines literature specific to two of the more widely used creative arts therapies: music and art therapy.

**Music Therapy (MT).** Mrazova, et al. (2010) conducted a systematic review of MT RCTs and concluded that MT appeared effective at improving various psychosocial outcomes; however, they acknowledged that such an assertion is tenuous as there was significant variability in the methodology of the studies examined. For example, the types of control groups varied from none to a different medium of MT, and there was no standardized delivery of treatment or qualifications of treatment providers. Another systematic review also showed that MT studies typically suffer from significant methodological flaws and concluded that the available studies collectively demonstrate MT's effectiveness only when combined with additional forms of therapy (Gold, et al., 2009). In regards to MT's effectiveness with trauma-exposed populations, we found one RCT by Carr, et al., (2012), who randomized 17 adults to either a program where they engaged in a manualized form of MT, or to a waitlist. The small sample size prevented use of statistical analyses, but summary data indicated those receiving MT demonstrated reduced PTSD symptomatology and marginally reduced depressive symptoms. However, the protocol appeared to integrate the music into a group treatment program and the effect of the inclusion of music is unclear. Only one additional study was found that utilized a control group, and MT did not reduce trauma symptoms in adult refugees (Jesperssen & Vuust, 2012). No RCTs were found

examining the impact of MT on trauma-exposed children.

**Art Therapy (AT).** Both Reynolds et al. (2000) and Slayton et al. (2010) reviewed AT RCTs and both found that AT research suffers from poor reporting of methodology and frequent confounding of studies by combining AT with other therapies. As a result, Reynolds et al. concluded AT is no more effective than "standard therapy," while Slayton et al. concluded that AT effectively reduces psychological distress. While the majority of studies included in these reviews focused on adults without trauma exposure, two studies within Slayton et al.'s review targeted children with PTSD. One study found a greater reduction in PTSD symptomatology among children at one week and one month following a single 60-minute art therapy intervention when compared to children who received standard hospital care. The second study found greater reductions in PTSD symptomatology for children in a trauma-focused AT group when compared to a "treatment as usual" AT group of inpatient adolescents.

More recently, Maujean, Pepping and Kendall (2014) and Schouten (2015) published systematic reviews of RCTs examining the impact of AT on psychosocial outcomes in various populations, none of which were child welfare-involved children. Maujean et al found all but one study reported a positive impact of AT on emotional states and improved quality of life, but it was not possible from the studies to determine whether AT contributed additional benefit beyond group interactions. Schouten et al. determined that AT was efficacious in reducing PTSD symptoms in adults, but noted significant methodological limitations in the studies available (e.g., heterogeneity of AT treatment modalities, AT in combination with another treatment). No additional RCTs were found examining the impact of AT on trauma-exposed children.

**Synthesis and Recommendations:** The lack of a commonly accepted treatment rationale or manual that clearly explicates the CAT process generally, or for more specific media, is a significant drawback to the empirical testing and clinical utility of CAT. In addition, much of the available research utilizes CAT in conjunction with other treatment approaches or integrates CAT into a group program and compares the intervention to a waitlist. As a result of these limitations, and considering the contradictory findings

of those studies that are available, it appears that CAT is best considered at this time an experimental treatment (Rating: Level 4). CAT is not rated by CEBC or NREPP.

Given these conclusions, we cannot recommend that CAT be considered a frontline treatment option for children. Empirically, CAT is most defensible as an add-on service used in conjunction with other treatment approaches; however, the current evidence does not indicate whether CAT provides an incremental benefit beyond the provision of other treatment approaches. We caution policymakers to carefully consider whether the potential benefit of CAT justifies the investment of time and resources necessary to establish and maintain the program.

## D. Movement-Focused Therapies (MFT)

**Theoretical Rationale:** MFTs ascribe to the tenet that one's mind and body are interconnected and that movement can be used therapeutically to promote emotional, cognitive and psychosocial wellness. While special training is required to perform these therapies, it is unclear if an advanced degree in a mental health field is required in addition to specialized training in a specific MFT. One rationale for the use of MFT is the belief that mitigation of psychological distress, development of emotion regulation, and integration of traumatic events can occur through experiential physical movement. Another rationale is that traumatic events are too upsetting to verbalize and through therapeutic movement the negative memories, emotions and cognitions surrounding the trauma can be appropriately processed. As with CAT, empirical validation for these rationales largely rests on case studies or theoretical beliefs that have yet to be rigorously tested. For example, some advocates of MFT cite movement and experiential learning as components of specific evidence-based therapies (e.g., behavioral activation, Dialectical Behavior Therapy); however, no studies were found that demonstrated these components in isolation were effective in promoting symptom reduction.

**Empirical Evidence:** As noted with other therapies, the majority of research on MFTs lack methodological rigor, leading to inconclusive results as to the actual efficacy of MFT. Many MFT studies recruit participants that have "failed to respond" to

other evidence-based treatments, or are engaged in adjunct treatment simultaneously, thereby rendering it impossible under these conditions to determine whether previous therapeutic experience, the adjunctive therapy, or MFT prompted significant positive change. No research or review could be found that discussed the efficacy of MFT as a whole. Thus, we focus on literature specific to two of the more widely used physical activities in MFT: dance therapy and adventure therapy (i.e., the use of physically demanding and/or adventurous activities as an intervention).

**Dance Therapy (DT).** Kiepe et al. (2012) reviewed the impact of DT on mental health outcomes, and found three RCTs. One study found no reduction of depressive symptoms as a result of DT, while two RCTs did demonstrate reduction in depression following DT. One of the two studies finding a positive effect included adolescents. Unfortunately, both studies finding positive effects of DT contained methodological flaws that limit the conclusions (e.g., no formal test to compare groups, comparison groups were also DT). In a more recent systematic review by Koch et al. (2014), the authors identified eight studies demonstrating a positive effect for DT, but the effects were small for depressive symptoms and moderate for anxiety symptoms. In addition, the majority of the studies identified by Koch, et al. did not contain appropriate control groups and it was not possible to determine if the effects of DT were distinct from merely being a part of group activities.

One RCT not included in the above reviews was identified (Brauniger, 2012). In this study, both short- and long-term improvements in participants' quality of life were reported after DT. However, numerous methodological aspects biased the results in favor of DT, such as participants having to pay money to be included in the DT group. No RCT or other controlled studies could be found that examined DT's effectiveness in reducing trauma symptoms, particularly with children.

**Adventure Therapy (AVT).** Hans (2000) conducted a meta-analysis to examine whether AVT studies improve one's internal locus of control (LOC) as suggested by AVT proponents. While the majority of the 30 studies included child/adolescent participants, only six studies conceptualized AVT as mental health therapy. Further, four of the studies did not have

defined assessments for LOC. These limitations notwithstanding, Hans' findings indicated that AVT produced a minimal effect on promoting internal LOC.

More recently, Gelkopf, et al. (2013) published a 12-month randomized study of AVT with Israeli adult males displaying chronic PTSD. Results indicated that participants' in the AVT group experienced significant reductions in PTSD and depressive symptoms. However, it is unclear if these results are attributable to AVT or by being a part of a group; further, participants still reported significant PTSD and depression symptoms at the conclusion of the 12 months of therapy. We found one additional study that utilized a control group, examining inpatient PTSD war veterans (Hyer et al., 1996). Results demonstrated AVT had no significant effect in reducing PTSD, anxiety, or depressive symptomatology when compared to the control group. In fact, it was stated that PTSD veterans with significant PTSD symptomatology were least likely to derive therapeutic benefit from AVT. No additional RCT or other controlled studies could be found that examined AVT's effectiveness in reducing trauma symptoms, particularly with children.

**Synthesis and Recommendations:** Although sustained exercise is generally found to improve physical health and reduce stress, it is unclear how MFT interventions are thought to differ therapeutically from an exercise program or other physical activities. Recent research questions the efficacy of AVT as a treatment approach as results indicate that it is either ineffective or exerts a minimal impact on outcomes. Similarly, studies of DT provide mixed results regarding effectiveness and the studies identified suggest minimal benefit, much of which may be attributable to social interactions. It should be pointed out that these results were observed even with significant methodological flaws that presumably would benefit the MFTs under examination. Furthermore, most of the studies focused on treating adults and only one study was identified that used adolescents (no studies were found examining children). At the current time MFT should be considered an experimental treatment (Rating: Level 4). MFT is not rated by CEBC or NREPP.

Given these conclusions, MFT does not appear to have a sufficient empirical basis to promote its use as either a frontline or adjunct treatment with children. The only viable place of MFT at this time is as a group

treatment program where the activities are drawn from an MFT model. However, clinicians and policymakers are discouraged from concluding that beneficial gains are the result of the MFT itself as the group social interactions may be the influential component.

## Summary

Perhaps the safest conclusion from this review is that the research on "nontraditional" forms of therapy is in its infancy. With the exception of EMDR, studies on these forms of therapy generally provide mixed results regarding the efficacy of the treatment and the positive results that are identified may be due to factors not related to the specific form of therapy being examined. In the case of EMDR, the research clearly shows that the intervention produces positive and significant results; however, the "nontraditional" aspect of EMDR (i.e., bilateral stimulation) appears unnecessary. Of course, if significant empirical evidence was available to promote the use of these interventions then there would be greater acceptance of them in the academic and policymaking arenas. Until such time that the research further develops and demonstrates significant positive benefit from these interventions, policymakers and clinicians are encouraged to select and implement interventions with sufficient empirical standing for the treatment of trauma-exposed children and adolescents.

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