



## **FASD and Art Therapy** **An Exploratory Review**

By Erin Rafferty-Bugher and Jerrod Brown

The purpose of this paper is to review art therapy (AT) and its effectiveness as a treatment approach for individuals diagnosed with fetal alcohol spectrum disorder (FASD). In 2008, Gerteisen explored the use of AT as a viable intervention model for individuals affected by FASD. This paper identifies applicable therapeutic AT approaches identified by Gerteisen's research. The literature review offers a comprehensive overview of FASD and comorbid diagnoses. Finally, this paper presents future research considerations for the use of AT as a successful treatment modality for FASD in all settings.

### **Information on FASD**

Individuals with FASD commonly experience interpersonal and social challenges, executive function limitations, learning problems, memory impairments, psychiatric conditions, and a host of other effects (Paley & O'Connor, 2011). Additionally, they commonly experience parental abandonment and neglect as children and will struggle academically, socially, and vocationally throughout their lives. They are at increased odds of becoming involved in the criminal justice system and child welfare systems (Paley & O'Connor, 2011; Streissguth, Barr, Kogan, & Booksstein, 1996). Further, homelessness, suicide, substance misuse, and maladaptive social behaviors are common (Steinhausen & Spohr, 1998). As a result, accurate detection of FASD can be challenging due in part to the vast array of symptoms experienced by this population through timing and dose variations. In many cases, the secondary disabilities are often diagnosed as the primary disability when, in fact, the primary disability is the brain injury. As such, it is imperative for clinical mental health providers to understand the complexities of FASD and seek out professional training opportunities to acquire an increased knowledge base pertaining to the accurate detection and treatment of persons affected by FASD. One such treatment approach clinicians may wish to consider is art therapy.

## A Brief Literature Review of AT and FASD, Childhood Trauma and Attachment

Due to a limited amount of research on the effectiveness of AT on the well-being of people with FASD, a literature review addressing a broader range of studies including trauma and attachment disorders will demonstrate the benefits of AT as a potential clinical intervention for FASD. Childhood trauma and attachment problems are common among individuals with FASD. PTSD and RAD are comorbid conditions that may accompany FASD. A review of the current literature will address the effectiveness of AT and its clinical consideration as a valuable tool in diagnosis, treatment, and understanding of FASD.

### AT and FASD

Gerteisen (2008), in his papers on AT, specifically addresses FASD and childhood trauma and the use of AT as a successful treatment modality. In the studies conducted by Gerteisen, AT was found to increase participants' self-esteem, improve their positive social relationships, enhance feelings identification, develop an opportunity for nonverbal expression of feelings, and encourage an increase in body awareness as well as an improved sense of self-control. Various therapeutic considerations were found to help participants manage symptoms associated with FASD. These considerations included:

- Visual cues were imperative for every group to support information-processing challenges.
- Sketchbooks offered participants a sense of containment and a safe space to share personal experiences. The sketchbook also served as a tool to address memory-processing issues by providing a record of experiences.
- Scented markers, another therapeutic consideration, were given to participants to stimulate olfactory sensory processing. In addition to the sensory benefits, the markers were observed to facilitate their inherent internal sense of control when utilized. The group participants were able to externalize complex experiences and feelings associated with effects of childhood trauma including expressions of fear, anger, grief and loss, pain, and sadness.
- Mandalas, another model found to be highly successful in the Gerteisen (2008) study, were found to increase the participants' ability to concentrate, demonstrate an increased ability to control impulse challenges and, in addition, provide an opportunity for participants to increase focus and improve decision-making while engaged in the art-making process. Mandalas were found to help participants decrease their anxiety. A Curry and Kasser (2005) study demonstrates a decrease in anxiety when a mandala task is given in a therapeutic setting.

In conclusion, the Gerteisen (2008) study highlights the integration of AT approaches into the FASD and trauma treatment plan as a successful and beneficial way to address the complex symptomology of FASD. AT allowed the children in this study to express complex feelings, practice strategies to increase memory recall, offered an internal sense of control, increased the clinicians' understanding of the internal experiences of each child, and offered a way to tap into implicit memory via sensory experiencing. To further understand FASD and the comorbid diagnoses oftentimes connected to FASD, it is imperative to explore the benefits of AT for trauma and attachment disorders in order to fully comprehend how AT is an effective treatment approach for those with FASD.

### AT and Trauma

Caregivers of children with FASD are often required to raise their children in unstable home environments (Olson, Oti, Gelo, & Beck, 2009). FASD-affected children also experience higher rates of foster care and institutional placements compared to non-FASD affected adolescents (Astley, Stachowiak, Clarren, & Clausen, 2002). Research offers a clear understanding of how complex childhood trauma affects the brain. Perry (1995), van der Kolk (2013), and Malchiodi (2012) have presented evidence demonstrating early relational trauma is expressed as deficits in the right hemisphere of the brain. Areas

in the brain affected by trauma are social and emotional processing and bodily formation. Included in the studies of Perry (1997), brain imaging and MRI research show there is underdevelopment in the cerebral cortex in the brain of severely maltreated children. In addition to differences in the cortex, Perry found smaller intracranial volumes in the brain contributing to symptoms such as intrusive thoughts, avoidance, and hyper arousal. Schiffer (2000) demonstrated that traumatic memories are stored in the right cerebral hemisphere, making verbal declarative memory of the trauma difficult. Other studies have demonstrated that exposure to violence and trauma shows heightened activity in the right amygdala and associated areas of the temporal and frontal cortex as well as visual cortex. Additionally, areas connected to language in the left hemisphere were turned off. According to Munns (2000), memories of trauma and severed attachment in the first three years of life are processed in the right hemisphere of the brain. If traumatic experiences are processed and stored in the part of the brain that is preverbal or nonverbal, creative and nonverbal methods of therapy should be considered a beneficial and effective form of treatment. Additionally, in people with FASD, the corpus callosum is often underdeveloped, creating fewer connections between the right and left hemisphere.

Cohen-Hass, Findlay, Carr, and Vanderlan (2014) share a trauma AT protocol in the research. This AT protocol includes a sequence of art directives for treating trauma that is grounded in “neurobiological theory and designed to facilitate trauma narrative processing, autobiographical coherency, and the rebalancing of dysregulated responses to psychosocial stressors and trauma impacts” (p. 69). The AT trauma protocol helps the client process trauma in a potentially nonthreatening way that addresses the client’s ability to differentiate from the trauma and recreate the narrative to form a healthy new narrative. Malchiodi (2012) and Klorer (2005) have devoted their AT careers to working with severely traumatized children and adolescents. Both clinicians postulate that successful therapeutic experiences for children who have experienced trauma need to include nonverbal modalities such as AT. Their work highlights art therapeutic interventions that offer traumatized children an opportunity to express complex feelings associated with severed attachment, neglect, and abuse. AT provides children and adolescents with a safe place to externalize complex feelings via a nonthreatening modality. The art-making process allows the opportunity to access, externalize, and develop a treatment process that addresses treatment plan goals associated with childhood trauma. This model successfully assisted the children and adolescents to process grief and loss, express painful emotions, and offer a safe place to contain these experiences. Ultimately, the children and adolescents were able to make small steps toward relational progress in their current family systems. When the attachment processes are severed, understanding FASD within the framework of attachment is necessary.

## AT and Attachment

Perhaps our best-known researchers on attachment, Bowlby (1969) and Mahler (1975), discovered through researching healthy attachment in mothers and children, that when a secure figure is absent, the insecurely attached individual has significant relational deficits that affect their ability to form healthy relationships throughout their life span. These studies are significant considerations when conceptualizing FASD. As FASD occurs prenatally, it is arguably the earliest form of childhood trauma—*prenatal trauma*. Relational issues may continue throughout the infant’s critical developmental years and beyond. Perry’s (1999) research on the neurobiology of severed attachment in early childhood suggests the extreme importance of a securely attached primary caregiver’s role in developing the child’s ability to form healthy relationships throughout the life span. Malchiodi (2014) and Shore (2014) found in their case study that clay was a successful way to manage the symptoms of RAD including containment of the overwhelming feeling states, supporting the client’s narrative and metaphor inherent in his or her story, and implementation of the therapeutic relational goals.

In summary of the brief literature review on AT and FASD, Gerteisen’s article highlights the benefits of AT in supporting and treating people with FASD. Childhood trauma and attachment have been successfully researched and include discussion and case vignettes on the benefit of AT and ways to successfully address the symptoms associated with these complex issues. It is imperative for clinicians to

understand all possible critical effects the impact that FASD has on the developing brain, including how the brain is affected by childhood trauma and lack of attachment to determine the best clinical treatment approaches for people with FASD.

## Clinical Considerations for AT as an Effective Treatment for FASD

**Table 1. Proposed benefits of AT for the treatment of FASD**

- Assisting in the externalization of complex feelings
- Emotional regulation, recognition, and literacy
- Learning calming, coping, and relaxation strategies
- Building and learning healthy socialization and relational skills
- Reduction in trauma symptoms such as hyper arousal
- Increased ability to focus
- A longer attention span
- Development and strengthening of self-esteem
- Development and strengthening of identity
- Tapping into implicit memory and externalization of memory(s)
- Connecting between and the formation of new neuropathways

### Materials and Media Clinical Considerations to Address FASD

The materials and media provided in AT sessions studied offer opportunities to address key symptoms and challenges experienced by individuals with FASD. Many areas in the brain affected by FASD can be accessed through art media. Lusebrink (2004) describes the many areas of the brain involved in art making. Areas such as the neocortex, limbic system, and basal ganglia are all involved in aspects of information processing during AT experiences. Lusebrink further describes in detail how visual information such as color is processed, and how somatosensory, motor, and emotional information is stored, processed, and accessed by engaging in AT activities. The Expressive Therapies Continuum (ETC), a model that presents a summary of interactions with media and expressions created in AT on three different levels of complexity, is imperative to apply when addressing the symptomatology of FASD. The ETC model offers art therapists a way to utilize art media in a specific therapeutic manner that engages different areas of the brain during the process of actively engaging with various materials and media. The materials can be used to help manage and engage areas of the brain that are affected by prenatal exposure to alcohol.

### Environmental AT Studio Clinical Considerations to Address FASD

Matson (2012) describes specific strategies for the AT studio environment when working with people with FASD. These strategies include creating quiet zones, designing group work and individual work areas, limiting distractions, organizing materials with visual information, establishing clear rules, utilizing multimodalities, keeping directions and directives simple with visual cues, creating opportunities for decision-making and problem-solving, providing structure, consistency, planning ahead for changes, building in visual and sensory transition experiences, and using multimodal cues for communication.

### AT Assessments as Clinical Considerations to Address FASD

Matson (2012) suggests AT assessments that can be used to address early intervention and detection for those who may have FASD. Assessments such as draw-a-person (DAP), draw-a-story (DAS), and kinetic-house-tree person (KHTP) may aid in the understanding and screening of FASD. An additional benefit to using AT-based assessments is the ability to identify client strengths, cognitive functioning, and perceptions about the self and the world. Clinical considerations for AT as an effective

and beneficial treatment option for those with FASD are outlined previously; however, additional research is warranted to examine the effectiveness of AT assessments for FASD.

### AT Directives as Clinical Considerations in Addressing Symptoms of FASD

In her master's thesis, Matson (2012) researched a number of specific therapeutic art interventions. When completed with a trained art therapist, these interventions may be useful for family members, individuals, and groups affected by FASD.

Based on an integration of Matson's thesis and the first author's experience using AT directives within a professional clinical context working with children diagnosed with FASD, PTSD and RAD, a table of AT proposed directives and therapeutic benefits for people with FASD are outlined below in Table 2.

**Table 2. Proposed AT Directives and Clinical Therapeutic Benefits for People With FASD**

#### Directive-Therapeutic Benefits

- *Build your environment*: Connection to community, social interest assessment, assessment of group interaction ability, and social connectedness.
- *Create a shield*: Provides a sense of protection and safety, and also provides an opportunity for identifying fears and areas of strength and weakness.
- *Sand tray story*: Finding metaphors inherent in clients' stories, offers sensory experience that can reduce hyper arousal and increase relaxation and mindfulness.
- *Safe place environment*: Assess the ability of the client to generate a safe place and assess needs and safety concerns. Who is in it? Where is it? How safe is it? What does it need?
- *Build an island*: What does the island look like? Is it inviting? Are there people? How do you get to the island? Is it habitable? What does the island need?
- *Duct tape animal sculptures*: To what animal does the client relate? Is it similar or different to the client? What are the animal's strengths and weaknesses? Assess problem-solving and conflict resolution skills.
- *Collaborative drawing tasks*: Assess and practice socialization skills.
- *Scribble drawings and develop an image*: Reduces anxiety, builds rapport, and offers structure.
- *Mandalas*: Decreases anxiety, provides structure, increases predictability, and provides repetitive rhythmic coloring.
- *Sketchbook expression*: Safe expression of feelings, emotional regulation, and literacy, containment, opportunity for narrative expression, and memory recall.
- *Collage self-portrait*: Self-expression and building of ego strength and self-esteem, finding space for pieces, integration of parts into a whole.
- *What does your heart look like and what's inside your heart*: Understanding internal feeling states.
- *Superhero characters*: Superhero powers—strengths, resilience, sense of special powers, what is the superhero's story?
- *Creating yarn dolls and figures*: Repetitive, rhythmic, reduces symptoms associated with hyper arousal, building ego strengths.
- *Sewing stuffed animals*: Safety, process is relaxing, filling emotional voids with stuffing, repetitive, rhythmic, positive sense of power and control with mastering needlework.
- *Glue gun "found object" creations*: Experiencing a positive sense of power and control in a safe manner, encouraging appropriate developmental play.
- *Masks*: Assessing self-identity awareness, feelings identification and expression, protection, safety, accessing defense mechanisms, identifying and connection to cultural aspects in AT.
- *Beading, yarn bracelets, and fuse beads*: Patterning, structured and predictable outcome, linear and concrete.
- *Dream catchers and rain sticks*: Sensory information processing, soothing process that addresses sleep disturbances due to symptoms of PTSD.

## Discussion

The information presented on FASD suggests a major problem in the accurate diagnosis and early detection of FASD. There is an alarming lack of awareness and proper diagnosis of FASD. Combined with this are lifelong pervasive mental health and other disabilities resulting from misdiagnoses or missed diagnoses. The limited research available on AT and FASD suggests there are benefits to using AT as an effective approach to address the symptoms of FASD; however, more research is imperative. There are a number of studies on the effectiveness of AT and trauma and attachment disorders that conclude the benefits of integrating AT directives into the treatment plan. AT clinical approaches that can be used to address the symptoms of FASD are highlighted in Tables 1 and 2. Reflecting on the information, presentation, and literature reviews of FASD and clinical AT approaches to the treatment of FASD suggests that AT should be considered for successful outcomes of those with FASD. AT provides opportunities for early screening and detection of the symptoms of this condition and the art therapeutic media involved in treatment are important tools for successfully addressing symptoms of FASD. Ultimately, an integration of AT into treatment plans and implementation of these plans may lead to more accurate case conceptualization, clinical care, and understanding of FASD.

## Future Research

Future research must include the development of a comprehensive diagnostic assessment that addresses the complex prenatal and early infant and childhood developmental history of mental health patients. AT research must address specific diagnostic information gathered through AT assessments that help detect FASD. Further research on AT as a valid and effective treatment approach specifically for those who meet the criteria of FASD will need to be provided to address successful treatment outcomes. In addition, future research on the connections between FASD, childhood trauma, attachment, and AT's role as a beneficial treatment modality may help clinicians understand the complex and critical effects of FASD on brain development, childhood trauma, and relational attachment.

## Authors

**Erin Rafferty-Bugher, ATR-BC, LPCC**, has over 17 years of experience working as an art therapist for children, adolescents, and adults who have mild to severe emotional difficulties, including RAD, FASD, and PTSD, in hospital inpatient, outpatient, and day treatment settings as well as three years of experience working with children who have life-threatening medical conditions. Erin has developed three AT programs in the Twin Cities that continue to provide AT services to their clients today. In addition to working as a clinician, Erin is a core faculty member at the Adler Graduate School (AGS) MN and has seven years of teaching experience in AT and clinical programs. Erin holds the role of field experience coordinator for AGS. The Creative Arts Therapy Collaborative (CATC) was developed by Erin and partners in 2008. CATC provides individual sessions, family sessions, groups, supervision services, and caregiver art experiential workshops for those seeking mental health services.

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