Art Therapy: Journal of the American Art Therapy Association, 38(2) pp. 78–86, © AATA, Inc. 2020

Sensory-Based Relational Art Therapy Approach (S-BRATA): A Framework for Art Therapy With Children With ASD

Huma Durrani

Abstract

This article presents a sensory-based relational art therapy approach (S-BRATA) framework for working with children with autism spectrum disorder (ASD) that explicitly addresses sensory integration dysfunction (SID) and impaired attachment. Developed based on three case studies and rooted in grounded theory methodology, the study resulted in seven themes: (1) sense of safety, (2) working with the child's sensory profile, (3) art materials as entry point for engagement, (4) attachment formation through mirroring and attunement, (5) flexibility in approach, (6) structure and boundaries, (7) art product not the focus. As a preliminary framework, S-BRATA extends and develops established concepts into a unified model.

Keywords: *Autism spectrum disorder, sensory integration dysfunction, attachment, sensory-based relational art therapy*

The emotional well-being of a child with autism spectrum disorder (ASD) is often considered secondary among therapeutic interventions that prioritize behavioral concerns that require immediate attention (Gomez & Baird, 2005). Despite the necessity of addressing behavioral problems, the challenges of the disorder and accompanying stress and frustration of coping with them reveals the importance of simultaneously addressing psychological health. Factors that impact emotional maturity include attachment and sensory integration dysfunction (SID). An explicit theoretical and practical context for conducting art therapy with children on the spectrum (Martin, 2009b) particularly within the framework of these two areas is lacking. This paper addresses this crucial gap through a practice-based, long-term qualitative study that resulted in the development of a framework: sensory-based, relational art therapy approach (S-BRATA).

Huma Durrani is a doctor of art therapy and runs an art therapy practice in Singapore by the name of Coloured Canvas. Correspondence concerning this article should be addressed to the author at hums34@gmail.com

Literature Review

Autism presents as a spectrum of comorbid difficulties in the areas of verbal and nonverbal communication, social and relational skills, theory of mind, rigid and perseverative behaviors, and—last but not least—SID (Fernell, Eriksson, & Gillberg, 2013). Sensory challenges are pervasive throughout the spectrum and effect individuals to varying degrees and across multiple domains, including the senses of smell (olfactory), movement (kinesthetic), sense of equilibrium (vestibular), awareness of body in space (proprioception), touch (tactile), sight (visual), and hearing (auditory) (Tomchek & Dunn, 2007). Children with ASD may close themselves off from sensory input from their environment to protect against experiences they find painful (Grandin & Panek, 2013). In particular, SID is known to cause anxiety in children with ASD, which has implications for the development of a healthy attachment pattern between the infant and caregiver (Naber et al., 2007). Because attachment-related behaviors between caregiver and child are rooted in sensory perceptions such as gaze, vocalizations, touch, and gestures (Stern, 1977), a disturbance in the synchrony of these behaviors will adversely impact this primary relationship (Slade, 2009; Tomchek & Dunn, 2007). However, research shows that most children with ASD are able to form an attachment with their caregivers, the quality of attachment may be impaired (Rogers, Ozonoff, & Maslin-Cole, 1993).

A large body of research affirms the impact of the attachment relationship on an individual's developmental, relational, and emotional health (Bowlby, 1969; Schore, 2003; van der Kolk, 2014). Thus, addressing the effects of an impaired attachment early on in life may be critical to the long-term psycho-emotional health of a child with ASD who is already challenged socially and relationally (Perry, 2006; Shore, 2014). Most autism-specific interventions for children target behaviors and the teaching of skills but neglect the emotional aspect of the children's development, which is critically involved in attachment. Although there is evidence of disrupted attachment patterns in a high number of children with ASD (Seskin et al., 2010), there are few interventions such as The Greenspan's Floortime Approach (Greenspan, 2002) that specifically target attachment

issues in them. Considering the criticality of a secure attachment and its long-term implications for the healthy psycho-emotional development of a child, it is confounding why the issue has not received the attention it deserves in the context of ASD.

Researchers have identified the positive impact of art therapy on the cognitive, adaptive, emotional and physical aspects of ASD (Betts, Harmer, & Schumelevich, 2014; Rafferty-Bugher, Brown, Hastings, Arndt, & Hesse, 2016). Multiple studies addressing social skills (Epp, 2008), sensory regulation (Kuo & Plavnick, 2015), motor skills (Stallings, Heller, Schuldt, O'Brien, & Carter, 2013) and self-expression (Elkis-Abuhoff, 2009) have found art therapy to be an efficacious intervention. Due to its multifaceted nature, art therapy has the capacity to tackle SID and facilitate attachment between child and therapist simultaneously, arguably making it an ideal treatment (Bragge & Fenner, 2009; Evans & Dubowski, 2001; Martin, 2009a, 2009b). Art therapists can use the multisensory nature of art materials and their inherent qualities to evoke and inhibit arousal levels to induce sensory regulation in children with ASD (Malchiodi, 2003). Once children are better regulated and less anxious they are more open to engaging with the therapist, who can form an attachment with them (Durrani, 2014). To further inform practitioners, this study aimed to develop a framework for art therapy to address impaired attachment in children with ASD and comorbid SID.

Methodology

Research Design

A multi-case study was chosen to observe and document qualitative data. Case study methodology lends itself to intensive observation and qualitative analysis of a clinician's interaction with study participants, documented with rich and thick detail. The study design was reviewed and approved by the Institutional Review Board of Mount Mary University.

Participants

The study participants were selected through convenience and purposive sampling. The selection criteria included a diagnosis of ASD, presence of significant SID., and no prior art therapy. It was assumed that a child with considerable SID would have impaired attachment. As such, attachment patterns were not measured through formalized testing due to lack of resources. The participants initially included four children between the ages of 3 and 8 years. Unfortunately, one had to terminate prematurely due to familial constraints, which resulted in the removal of his case from the study.

Teo. Teo (pseudonym), 5 years old, presented as a frail, shy boy with a glazed look in his eyes. Teo could verbalize but not use language functionally. He perseverated on nursery rhymes and seemed enclosed in his own world apparently disinterested in communication outside it.

Raj. Raj (pseudonym), 7 years old, had significant sensory issues with vestibulation and proprioception. He was hyperactive and occasionally displayed an oppositional attitude toward his mother who managed it with firm boundaries. Raj had limited expressive language and some reciprocal skills such as following simple directions.

Alex. Alex (pseudonym), 7 years old, was a well-built, overtly affectionate boy with good expressive and receptive language. Alex had self-regulation challenges, a short attention span, and significant proprioceptive needs. He had difficulty transitioning from home to school and difficulty separating from his mother.

Procedures

Written consent was obtained by caregivers prior to the study. The children received 12 individual art therapy sessions, of approximately 40 to 50 minutes, over 12 weeks. My approach in the sessions was guided by best practices by art therapists such as Martin (2009a) and Evans and Dubowski (2001) amongst others. However, I did not follow any specific framework and allowed myself to be led by the needs of the participants. Additionally, the caregivers participated in informal pre- and post-therapy interviews that were based on open ended questions. The pre-therapy interview aimed to collect background information about the children especially details of their sensory profile and social emotional behaviors. In the post- therapy interview the caregivers were asked to give feedback on the sessions and report any changes in the aforementioned behaviors. All sessions were video recorded and artwork was photographed taken before returning it to the caregivers. I made detailed clinical notes documenting my observations and analysis of the sessions.

I created one approximately 60-minute aggregate video of the 12 sessions per participant. The video highlighted significant moments of interaction between myself and the child, documented changes in the child's behavior, and illustrated parts of the intervention that may or may not have worked.

Credibility

The three aggregate videos were shared with the caregiver and another art therapist to confirm alignment of my clinical notes with the videos. Additionally, the art therapist reviewed my clinical notes with the videos and confirmed the accuracy of my claims, observations, and clinical analysis.

Table 1. Sample of an Analytic Table of Session 3 With Teo

Question	Answer
Was the child resistant to enter the room?	No; I kept the door open. Went back and forth from art room to waiting room so I called his mother in. Safety was primary.
Was the child comfortable with proximity to the therapist?	Teo did not seek proximity. I did. Was not interested/seemed oblivious to me. Was closed/anxious.
Did the therapist mirror the child's vocalizations, actions, and/or emotions?	Yes, I imitated movements. Sang around the room. Teo unaware/uninterested. I could sense that he was somewhat more comfortable in this session than the last. Therapist must attune to child's emotional state.
Did the child respond to directives?	No. Not aware or interested. Closed/anxious.
Did the child respond to turn taking?	No. Not aware or interested. Skill not developed. Closed/reciprocity lacking.
Did the child imitate the therapist?	No. Not aware or interested.
Did the therapist use things other than art material, such as musical instruments, games, and toys?	I used the rattle and beanies to attract attention. I was willing to use anything to engage. Flexibility is necessary.

Note. Analytic tables were made for each of the 36 sessions based on the video clips and clinical notes.

Data Analysis

I created 36 analytic tables (one for each of the 12 sessions per participant) from the videos and clinical notes. I reduced the data into analyzable categories informed by topics in the Attachment Q-sort, a modified version of the Strange Situation Procedure, used to measure attachment in children with ASD in a naturalistic environment (Vaughn & Waters, 1990). Table 1 is an example. Next, I applied grounded theory methods (Corbin & Strauss, 1990) to conceptualize and categorize data according to frequency, similarity, and differences through coding (Figure 1). Key concepts identified in the analytic tables generated a gestalt of the three cases. Data generated from the gestalts was compared and coded by relevance and recurrence to generate themes.

Results

The qualitative analysis identified 7 themes across the three cases: (1) sense of safety, (2) working with the child's sensory profile, (3) art materials as entry point for engagement, (4) attachment formation through mirroring and attunement, (5) flexibility in approach, (6) structure and boundaries, (7) art product not the focus. Each theme below contains clinical examples and relevant established therapy and art therapy protocols.

Sense of Safety

The foremost aspect of working with a child with autism is to establish a sense of safety by anticipating the stress levels of the child (Martin, 2009a). I approached Teo slowly to allay any feelings of danger he may be experiencing allowing his mother to sit in the sessions until he was comfortable being alone with me. Instead of actively seeking his engagement or holding back, I worked with art materials in another part of the room, not insisting he reciprocate. My art making eventually drew Teo's attention and encouraged him to approach me willingly to engage in sensory artmaking (see Figure 2). Consequently, he became increasingly comfortable with proximity to me, initiating touch during artmaking with foam indicating that my holding back of active engagement had allowed him space and time to feel safe, a prerequisite for attachment formation. In session 11, Teo happily returned after a two-week break and was comfortable enough throughout the session that he allowed me to draw on his hand. Teo's mother reported that she was "over the moon" with his progress as he was beginning to approach other children in the park, repeat words and use some functional language.

Working With the Child's Sensory Profile

The sensory profile of the child details their hypo and hyper sensitivities across the sensory domains.

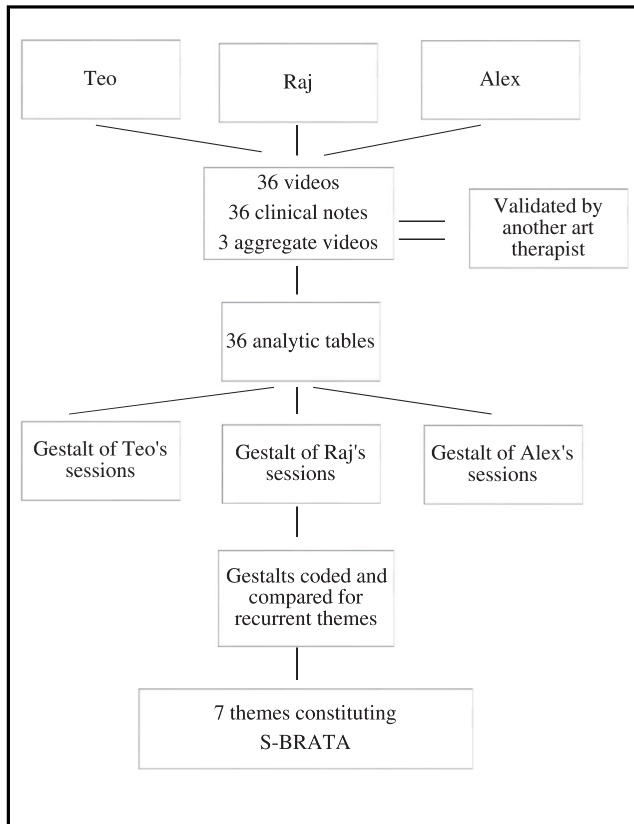

Figure 1. Illustration of Grounded Theory Methodology Including Data Collection and Data Analysis Procedures

Familiarization with the child's sensory profile includes awareness of restrictive, repetitive behaviors (RRBs) such as hand flapping, finger movements, spinning, narrow interests, and rituals. These behaviors may be indicative of anxiety levels (Lidstone et al., 2014) and therefore can guide the art therapist to the appropriate use of art materials for sensory regulation.

When Alex became excitable using paints and smeared it over his body, I directed him to sand play or clay to contain his affect and provide him a concrete focus around which his sensory experiences could be integrated (Martin, 2009b). Moreover, I preempted Alex's need for sensory breaks and sporadically allowed him to "just be" rather than engage him in activities. I adopted a mode of approach and retreat where I engaged him in art making for 10–15 min and let him wander in the studio until he voluntarily returned.

However, with Raj it seemed that art materials or perhaps the way I used them may not have sufficed for his sensory needs as his RRBs and disruptive behaviors increased progressively over the sessions. As Raj's initial interest with art materials waned I wondered whether an approach that used a broader range of kinesthetic activity, such as dance or movement therapy, might be more suitable for him.

Figure 2. Teo: Foam and Paint on Mirror

Art Materials as Entry Point for Engagement

Art can be a buffer between therapist and children who struggle with social interaction (Martin, 2009b). Nontraditional art materials like shaving foam and colored/kinetic sand proved to be a draw for all three children. Such media provided the boys an indirect route to establish communication with me.

Attachment Formation Through Mirroring and Attunement

Relational art making is a strategy for addressing attachment by mirroring and attuning to the child in order to replicate the mother–child relationship (Armstrong, 2013). In his sessions, Teo perseverated on nursery rhymes that seemed to serve a regulatory purpose. I sang with Teo, as a mother would along her child, indicating my desire for connection. Over time, my overtures drew Teo's attention and he began noticing and responding to me. By the end of therapy, Teo showed signs of emerging play when I threw a ball at him and he responded similarly. By session 12, Teo had begun to repeat words after me. Moreover, the glazed look in his eyes before he started therapy had been replaced by a look of anticipation as if he was happy to see me.

In my sessions with Raj, I struggled with my own anxiety in attuning to him as I was unable to support him in self-regulating sufficiently with art materials. Though there were periods where Raj and I engaged in joint art making (see Figures 3 and 4), his motivation to

Figure 3. Raj: Paint, Sand, and Glue

Figure 4. Raj: Paint and Torn Paper

work with art materials seemed to wane as sessions progressed. Raj's lack of interest in engaging with me through art making left me feeling frustrated and resulted in a lack of synchronicity between us that was reflected in my own emotional state. My heightened state of anxiety in the sessions possibly mirrored Raj's and was indicative of a mis-attuned relationship. Due to the limitation of time and sessions, I was unable to work through the block in our relationship unlike with Alex where I managed to repair the rupture by setting firm boundaries.

Alex reached a point of comfort around session 6, where he began to push my boundaries to the degree that I was forced to prematurely conclude a session due to his highly disruptive behavior. Subsequently, I made it clear to Alex that certain behaviors were unacceptable and would result in a shorter session, a consequence that was undesirable to him and his behavior settled down. Rupture and repair in relationship are part of the attachment process (Stern, 1977) and eventually, Alex and I re-attuned to each other by balancing the equation of give and take.

Flexibility in Approach

Rather than adhering to preconceived ideas about art therapy, flexibility in approach is key to meeting the child at their current need level. Art making was not restricted to any particular surface in the room and the boys could make art sitting at the tables, on the walls or lying down on the floor. I also incorporated other modalities such as the use of musical instruments as well as singing, dancing, and playing hide and seek in the sessions to motivate and engage all three boys.

Structure and Boundaries

Art therapy may be considered a relatively unstructured intervention as compared to other autism-specific interventions such as ABA or TEACCHH. For children who have significant sensory challenges and where reciprocal behavior is not fully established, it may be impossible to have an unstructured session. Initially, not knowing what to expect, I did not have a session plan for Alex, Teo, or Raj, but soon realized that with Alex I had to lineup activities because of his limited attention span and propensity to become distracted. Hence, I planned a succession of activities beforehand that included shaving foam, painting, stamping, clay, and sand play to keep him motivated (Figures 5 and 6).

Establishing firm boundaries may be necessary for children who engage in disruptive behaviors such as banging doors and throwing objects. For instance,

Figure 5. Alex: Modeling Clay and Accessories

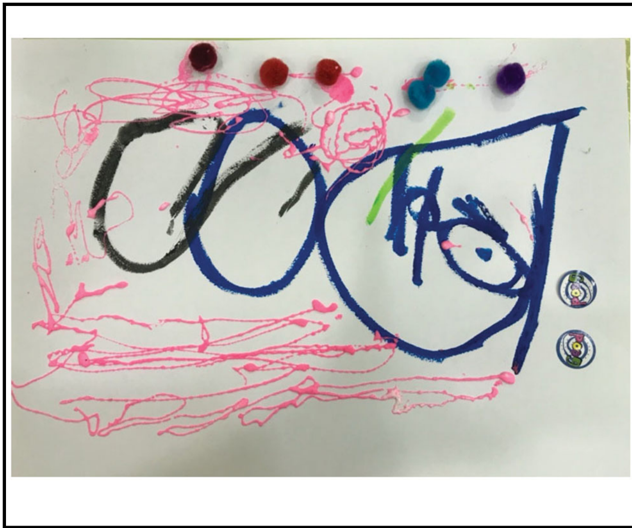

Figure 6. Alex: Mixed Media on Paper

although I allowed Alex to pour large amounts of paint from bottles, when I felt he was dysregulating I poured the paint for him or gave him a smaller palette which could only hold a small amount. Rather than confront disruptions directly, setting boundaries and imposing structure facilitated co-regulation. Alex's mother reported that she felt he was calmer at home for a couple of days after his sessions with me.

Art Product Not the Focus

It may not be possible to have a session where any tangible art product is produced. In fact, with Teo and Raj, most of the artmaking was sensory-based (Figure 7). With Alex, there was always an art product at the end, but his artmaking was driven primarily by sensory needs. At times I was able to extend Alex's communication with me by using the art product and talking about it. Nevertheless, creating an art product was not the primary purpose of the sessions. The aim was to have a sensory regulated child establish reciprocity facilitated by art materials with the primary goal of establishing attachment between myself and them.

Discussion

These seven themes can be united to form the core of the S-BRATA framework, an approach for art therapists to address both SID and attachment simultaneously. The basic themes are neither restrictive nor prescriptive but are meant to be used as a guide by art therapists. All seven themes run concurrent to each other and are not sequential in nature. Each theme of the approach extends and develops established concepts that relate to the importance of safety and working with the child's sensory profile (Martin, 2009a), the role of art materials (Malchiodi, 2003; Martin, 2009b) and the importance of developing a relationship with the child with ASD (Bragge & Fenner, 2009; Evans & Dubowski, 2001; Kossak, 2015). S-BRATA integrates these ideas into a unified model.

Figure 7. Teo: Paint and Foam on Paper

In addressing SID, S-BRATA challenges some of the traditional forms of art therapy in that the focus of the approach is not on reflection on the art product. Hence, a session based on S-BRATA may not resemble a typical art therapy session where the interaction between therapist and child may be restricted to art making on a single surface like a table or the floor or the creation of an art product. Entire sessions may be only dedicated to sensory play or activities other than artmaking because the child is not ready or motivated to engage with art materials. Flexibility in approach is emphasized and allows for inclusion of play, drama, and music in the sessions when the therapist might need to attune to the child using different media. The tactics of holding back engagement from engagement as explicated earlier, may be considered unique to the field of art therapy and are recommended to instill a sense of safety for the child. These techniques may result in long periods of minimal interaction between child and therapist especially in the initial sessions but may be necessary for the child to feel safe.

As it pertains to attachment, S-BRATA positions the therapist as an attachment figure and emulating an attachment relationship is fundamental to the objectives of the intervention. Evans and Dubowski (2001) recommended a treatment approach based on reciprocal cueing while also paying attention to rhythm and body language. They referred to this communication as *proto-conversations* in that the therapist's response gives meaning to the client's vocalizations and results in verbal/nonverbal dialogue. This reciprocity also includes embodied intelligence and interpersonal connectedness that facilitate a sense of awareness in the therapist of the emotional state of the child (Belkofer & Nolan, 2016). Kossak (2015) identified that the arts can achieve *entrainment*, or experiencing the state of another through deep connectivity through activities that involve sensory integration and kinesthetic movement. When a therapist can attune to the sensory and emotional state of the child, the therapist's self-awareness of countertransference feelings, anxiety, and breathing patterns in the session can offer important nonverbal information to help tailor the intervention.

Practical Implications

The S-BRATA framework lends insight to the complexity of dealing with a wide spectrum of challenges that require an informed and attuned approach, just as each child with ASD is unique. For example, Teo and Alex's observable progress indicated that they had developed a form of attachment to me which proved to be beneficial for them. As for Raj, it seems that though he was comfortable around me and initially engaged in relational art making, he was not sufficiently motivated to sustain the engagement. Twelve sessions did not seem to be enough to work through or reevaluate my approach with Raj.

To fully utilize the S-BRATA framework, before starting art therapy, the therapist should gather information on the child's sensory profile through occupational therapy reports, or communication with caregivers and other professionals. A sense of safety must pervade all the sessions and requires the therapist to preempt the child's anxiety, be sensitive to their sensory challenges, and pay close attention to the RRBs. Employing the holding back technique the therapist can not only establish safety but also work through periods of rupture and re-attunement which are part of the attachment process.

During sessions, the art therapist must gauge the suitability of allowing, withdrawing or alternating art materials to aid regulation. Exposure to certain materials may induce hyper-arousal in the child causing unmanageable excitement indicated by increase in self-stimulatory behaviors, accelerated breathing, louder vocalizations and disruptive acts. Fluctuating states of arousal can be disconcerting for the therapist and it may take a few sessions to gauge the effect of specific art materials on the child. Similar to co-regulatory activity between caregiver and infant, the therapist can use art materials to induce and regulate arousal to practice self-regulation. Managing the child's highs and lows may facilitate the internalization of self-regulatory activity through recurrent experiences. The art therapist will have to experiment with structure and boundaries to ascertain what works best for each child. Lastly, the therapist must be comfortable with the eventuality that in some sessions no art may be made, the child may dysregulate and respond unpredictably to certain materials and what worked in one session may not in the next.

Although my research focuses specifically on children with ASD, SID and possible impaired attachment, the framework is not exclusive to this population. S-BRATA has the potential of wider applicability and practitioners are encouraged to adapt and develop it to suit their clients. Similarly, S-BRATA does not have to be the exclusive domain of art therapists. Expressive therapies practitioners such as dance, music, movement and drama therapists, professionals who incorporate sensory, kinesthetic, tactile, visual and auditory elements in their work can also employ the basic principles of S-BRATA in their approach.

Limitations

The data that informs the S-BRATA framework was derived from only three participants, which potentially limits the transferability of the study. Although, 12 sessions may not be long enough to accurately gauge the level of attachment between therapist and child, it does represent sustained involvement in the field of study. Furthermore, due to the duality of my role as a practitioner/researcher as well as the heavily relational nature of my intervention where a large part of my analysis is based on implicit knowledge and interpersonal resonance (Kossak, 2015), it may be argued that there is the possibility of researcher bias in my methodology. As such, the quality of data fits both the theory and rigor of a qualitative case study (Charmaz, 2014). Further research may contribute to the evidence base of S-BRATA through ongoing qualitative as well as quantitative research that seeks to identify changes in behaviors such as reduction in RRBs or frequency of eye contact amongst others.

Conclusion

This study provides a preliminary framework for working with children with ASD through S-BRATA. The model offers art therapists a conceptual way to address sensory and attachment dysfunctions by attuning to the child's needs, adopting a flexible attitude, and replicating the caregiver–child relationship based on nonverbal, subliminal nuances of communication. Dyadic sessions facilitated by the art therapist using S-BRATA hold exciting possibilities for research and development

within the context of attachment between caregiver and child with ASD.

References

Armstrong, G. V. (2013). Modeling attuned relationships in art psychotherapy with children who have poor early experiences. *The Arts in Psychotherapy*, *40*(3), 275–284. doi: 10.1016/j.aip.2013.04.002

Belkofer, C. M., & Nolan, E. (2016). Practical applications of neuroscience in art therapy: A holistic approach to treating trauma in children. In L. J. King (Ed.), *Art therapy, trauma, and neuroscience* (pp. 157–172). New York, NY: Routledge.

Betts, D., Harmer, R., & Schumelevich, G. (2014). The contributions of art therapy in treatment, assessment, and research with people who have autism spectrum disorders. In V. W. Hu (Ed.). *Frontiers in Autism research: New horizons for diagnosis and treatment* (pp. 627–655). Hackensack, NJ: World Scientific.

Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York, NY: Basic Books. doi:10.1093/sw/26.4.355

Bragge, A., & Fenner, P. (2009). The emergence of the 'Interactive Square' as an approach to art therapy with children on the autistic spectrum. *International Journal of Art Therapy*, *14*(1), 17–28. doi:10.1080/17454830903006323

Charmaz, K. (2014). *Constructing grounded theory. A practical guide through qualitative analysis.* London, UK: SAGE.

Corbin, J., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, *13*(1), 3–21. doi:10.1007/BF00988593

Durrani, H. (2014). Facilitating attachment in children with autism through art therapy: A case study. *Journal of Psychotherapy Integration*, *24*(2), 99–108. doi:10.1037/a0036974

Elkis-Abuhoff, D. (2009). Art therapy and adolescents with Asperger's syndrome. In S. L. Brooke. *The use of creative therapies with autism spectrum disorders* (pp. 19–41). Springfield, IL: Charles C. Thomas.

Epp, K. M. (2008). Outcome-based evaluation of a social skills program using art therapy and group therapy for children on the Autism Spectrum. *Children & Schools*, *30*(1), 27–36. doi:10.1093/cs/30.1.27

Evans, K., & Dubowski, J. (2001). *Art therapy with children on the autistic spectrum*. London, England: Jessica Kingsley.

Fernell, E., Eriksson, M. A., & Gillberg, C. (2013). Early diagnosis of autism and impact on prognosis: A narrative review. *Clinical Epidemiology*, *5*, 33–43. doi:10.2147/CLEP.S41714

Gomez, C. R., & Baird, S. (2005). Identifying early indicators for autism in self- regulation difficulties. *Focus on Autism and Other Developmental Disabilities*, *20*(2), 106–116. 50200020101 doi:10.1177/108835760

Grandin, T., & Panek, R. (2013). *The autistic brain*. New York, NY: Houghton Mifflin Harcourt.

Greenspan, S. I. (2002). *The secure child: Helping our children feel safe and confident in a changing world*. Cambridge, MA: Da Capo Press.

Kossak, M. S. (2015). *Attunement in expressive arts therapy*. Chicago, IL: Charles C Thomas.

Kuo, N., & Plavnick, J. B. (2015). Using an antecedent art intervention to improve the behavior of a child with autism. *Art Therapy: Journal of the American Art Therapy Association*, *32*(2), 54–59. 1028312. doi:10.1080/07421656.2015

Lidstone, J., Uljarević, M., Sullivan, J., Rodgers, J., McConachie, H., Freeston, M., … Leekam, S. (2014). Relations among restricted and repetitive behaviors, anxiety and sensory features in children with autism spectrum disorders. *Research in Autism Spectrum Disorders*, *8*(2), 82–92. doi:10.1016/j.rasd.2013.10.001

Malchiodi, C. A. (2003). *Handbook of art therapy*. New York, NY: Guilford Press.

Martin, N. (2009a). *Art as an early intervention tool for children with autism*. London, England: Jessica Kingsley.

Martin, N. (2009b). Art therapy and autism: Overview and recommendations. *Art Therapy: Journal of the American Art Therapy Association*, *26*(4), 187–190. doi:10.1080/07421656.2009.10129616

Naber, F. B. A., Swinkels, S. H. N., Buitelaar, J. K., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., Dietz, C., … van Engeland, H. (2007). Attachment in toddlers with autism and other developmental disorders. *Journal of Autism and Developmental Disorders*, *37*(6), 1123–1138. doi:10.1007/s10803-006-0255-2

Perry, B. (with Szalavitz, M.). (2006). *The boy who was raised as a dog: And other stories from a child psychiatrist's notebook: What traumatized children can teach us about loss, love, and healing*. New York, NY: Basic Books.

Rafferty-Bugher, E., Brown, J., Hastings, B., Arndt, C., & Hesse, M. (2016). Benefits of art therapy as treatment for autism spectrum disorder: An exploratory review. *The Journal of Special Populations*, *1*(1), 1–12. Retrieved from http://jghcs.info/index.php/jsp/article/view/506/436.

Rogers, S. J., Ozonoff, S., & Maslin-Cole, C. (1993). Developmental aspects of attachment behavior in young children with pervasive developmental disorders. *Journal of the American Academy of Child & Adolescent Psychiatry*, *32*(6), 1274–1282.

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, NY: W. W. Norton.

Seskin, L., Feliciano, E., Tippy, G., Yedloutschnig, R., Sossin, K. M., & Yasik, A. (2010). Attachment and autism: Parental attachment representations and relational behaviors in the parent-child dyad. *Journal of Abnormal Child Psychology*, *38*(7), 949–960. doi:10.1007/s10802-010-9417-y

Shore, A. (2014). Art therapy, attachment, and the divided brain. *Art Therapy: Journal of the American Art Therapy Association*, *31*(2), 91–94. doi:10.1080/07421656.2014.903827

Slade, A. (2009). Metalizing the unmentalizable: Parenting children on the spectrum. *Journal of Infant, Child and Adolescent Psychotherapy*, *8*(1), 7–21. doi:10.1080/15289160802683054

Stallings, J., Heller, K., Schuldt, B., O'Brien, M., & Carter, E. (2013). Combining art therapy and applied behavior analysis (ABA). Paper presentation at the annual meeting of the American Art Therapy Association, Seattle, Washington.

Stern, D. N. (1977). *The first relationship: Infant and mother*. Cambridge, MA: Harvard University Press.

Tomchek, S. D., & Dunn, W. (2007). Sensory processing in children with and without autism: A comparative study using the Short Sensory Profile. *American Journal of Occupational Therapy*, *61*(2), 190–200. doi:10.5014/ajot.61.2.190

van der Kolk, B. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma.* New York, NY: Penguin Books.

Vaughn, B. E., & Waters, E. (1990). Attachment behavior at home and in the laboratory: Q-sort observations and strange situation classifications of one-year-olds. *Child Development*, *61*(6), 1965–1973. doi:10.2307/1130850

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