

Doll Making in Art Therapy with Adults with Autism

by

Alexia Kutzner

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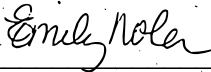
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Approved by



5/4/2020

Emily Nolan, DAT, ATR-BC, LPC (Chair of Committee)

Date



5/4/20

Lynn Kapitan, PhD, HLM, ATR-BC (Second Core Faculty)

Date



5-6-20

Holly Feen- Calligan PhD, ATR-BC (Committee Member)

Date



5/6/20

Monique Willis PhD (Committee Member)

Date

Abstract

The purpose of this research was to study the experience of dollmaking as an art therapy intervention for individuals with autism spectrum disorder. There is very limited recognition and research on doll making with different populations even though the literature identifies positive effects for individuals with varying diagnoses. This research study utilized a phenomenological approach to observe and examine the phenomenon of doll making with four high functioning adults with autism, and to witness their experience and its therapeutic impact on them. The main result was that all of the participants created their dolls as specific fantasy characters that were unlike the participants themselves. The doll appeared to serve as a vehicle for changing an existing pattern of social interaction to one of more active engagement. Communication, connection, and transformation were additional themes from the phenomenon of doll making that continued beyond the art therapy sessions.

The researcher's aims were to include each participant's own voice in the study, which they expressed by sharing the story of the doll, and to discover the meaning of the experience of doll making and how it related to the participants' lives. Inspiration was drawn from the neurodiversity movement and incorporated an anti-oppressive approach in which participants could make choices and feel empowered; this approach at times may be different from the treatment approaches currently used with autistic individuals.

Keywords: art therapy, autism spectrum disorder (ASD), autism, doll making, neurodiversity

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Dedication

I dedicate this dissertation to all my clients with autism. You have all taught me so much.

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CHAPTER 1: INTRODUCTION

My interest in and also repulsion by dolls started during my early childhood. I found dolls to be in some ways scary and could not relate to them. The staring eyes and lifeless bodies were unappealing to me. Yet while earning my master's degree in art therapy at Loyola Marymount University, I became interested in how artists use doll making to express themselves. Even though it did not become a focus of my studies at the time, I started to create my own dolls shortly after I gave birth to my first son. I did this to remind myself of my own identity and strengths. It also was something that I could engage in and put to the side more easily than a painting. From this experience, I realized the power that came from doll making and started to use the practice of making dolls with various clients in my therapy sessions. I began to experiment with creating different doll forms and templates and using those to work with clients, while encouraging them to make their own dolls for self-expression.

A year ago, I facilitated a group with art therapists who created their own dolls. Some of the therapists created a doll to remind themselves of lost ones. For example, one art therapist created a doll of her son who had unexpectedly passed away. Another art therapist created a doll with muscles and a strong upper body and planned to give the doll to his brother, who was going through cancer treatment. One woman worked on a doll for her mother, whom she had lost in a car accident as a young child. When we processed the experience of doll making, she shared that she had only a few memories of her mother and that during the doll-making process more memories had surfaced.

More recently, I led a group of adults with autism in creating dolls, and I found that everyone was more engaged and playful in this art directive than with previous directives. One client created a circus doll and another client created a doll representing a black hole. Group

members worked fast, without any interruption, and used materials and fabric that were unfamiliar to them (e.g., ribbons, stones, and feathers). However, most of the faces of the dolls were either left blank or quickly drawn with a Sharpie pen, while the dolls' clothing looked rather intricate and detailed. I also noticed different interaction patterns and a closer connection after the doll making had taken place. I therefore had the desire to further explore the phenomenon of therapeutic doll making and how this process is experienced by individuals with autism.

The literature on art therapy and doll making is very limited, even though the articles and books that I found on the topic all praise the importance of this process. A doll is a body form and doll-making a sensory-inducing process with different materials for individuals with grief issues, individuals with trauma, and individuals with dementia. The research on crafts in art therapy is still very limited and often crafts such as sewing, embroidery, and knitting are underrepresented as alternative processes with art therapy participants (Leone, 2018). I sought to bring more emphasis to the value of craft by researching the experience of doll making for individuals with autism and providing opportunities for them to tell their own stories about it.

Not only are crafts underemphasized in the art therapy literature, but also many treatments that art therapists provide for individuals with autism spectrum disorder (ASD) focus mostly on cognitive behavioral therapy. The focus on cognition leaves out how art therapy may be well suited to address different aspects of this diagnosis, such as problem solving, social skills, language, and a sense of self, without pressuring change and neurotypical beliefs toward a neurodiverse population that might want to find their own solutions to problems.

The methodological framework of my research is situated in phenomenology. I wanted to explore the experience that I have often intuitively observed in individuals with autism when

they make dolls. The purpose of my study was to explore and witness the phenomenon of how adults with autism experience therapeutic doll making and what meaning they assign and create through this process.

Throughout this dissertation, I will refer to the individuals in my study as “people or adults with autism” and not people with ASD. By doing so I am emphasizing the person rather than seeing autism as a disability. It is important to me to only use the ASD diagnosis as a label when the context I describe herein is specific to clinical treatment options or a diagnosis of ASD. My study is situated in the neurodiversity paradigm in which the human brain and mind is recognized within varying degrees of diversity (Walker, 2014). I also want to make clear that I am a neurotypical clinician (that is, with neurocognitive functioning within the societal standard of normal) and that I have tried to understand and represent the meanings discussed and extracted from my study’s neurodivergent participants’ lived experience as closely as possible.

In Chapter 2, I situate my study in the larger discourse of autism treatment approaches to bring an understanding of how some of these treatments have been or have not been helpful for individuals with autism and what has informed those choices in treatment. I begin this literature review with a story of two previous autistic clients of mine. In Chapter 3, I describe the phenomenological method and study design that I used to conduct the study. In Chapter 4, I present the results of the study via the participants’ own stories of their dolls, showing images of the dolls and describing my own observations. Chapter 5 concludes with a discussion of the results and recommendations for future art therapy work with individuals who have autism as well as using crafts in art therapy sessions.

CHAPTER 2: LITERATURE REVIEW

In my private practice I see many adults who have been diagnosed with autism spectrum disorder. My clients range in age and symptomology in terms of how the disorder presents. The following is an example of how ASD presents in sessions and how it affects the everyday life of two clients. “Josh” is a 19-year-old man who, in addition to ASD, has attention deficit hyperactivity disorder and atypical depressive disorder. However, he only received an ASD diagnosis 2 years ago, at the age of 17. Because his brother has more severe autism and needed early childhood interventions, Josh’s diagnosis went undetected as his parents focused more on his brother’s needs and less on him. In the past 2 years, Josh was hospitalized at least twice for suicidal ideation and plans to commit suicide (wanting to jump out of a car), as well as homicidal behavior toward his mother.

I looked out of my office window 2 hours ago and saw Josh sitting outside on a breezy spring morning with headphones on. When I greet him, his eyes avoid my gaze and he laughs to himself as he walks in. His headphones are off, but he continues to look at his phone. When he sits down he shifts his weight constantly and leans forward and backward. His phone is to the side, but randomly he picks it up and puts it down again. I start by asking him about his week and whether he is still looking for a job. The previous week he had very enthusiastically left my office stating that he was going to apply for at least six jobs in the next week. He states that he has barely left his home for the past week and looks at YouTube videos most of the time. He replies that he has not looked online for any jobs and that he feels too busy with his life. I ask him what he thinks is keeping him too busy and he is not able to tell me anything. We discuss the importance of the need to socialize and I ask him if he has been in contact with any friends he still has from high school. He replies that he hasn’t and that his mom is the only person he talks

to on a daily basis when she gets home at night. He proudly tells me that he has made some dinners for himself and cooked 10 chicken legs. When I ask him if he included any vegetables or grains he tells me he just ate five chicken legs. When we engage relationally while sewing a blanket together, he seems visibly calmer and does not move around in his seat anymore.

I have an appointment with another client with ASD immediately after Josh's session. She is a 23-year old woman named "Claudia" who has a diagnosis of autism spectrum disorder and generalized anxiety disorder. When Claudia walks into my office she squints and avoids eye contact while talking in rapid speech about her favorite celebrities. When she sits down, she picks up the pillow on the couch, opens the zipper, and starts to pull feathers out of it. She becomes very engrossed in this task and loses all sense of time and awareness of her environment. This is her weekly routine and I watch her for about 5 minutes. When I ask her a question, she is verbally unresponsive. I have to repeat my question and she apologizes for not paying attention. I agree to give her another few minutes before moving on to a different task. She reluctantly places the pillow to the side and throws a handful of plucked feathers into the trash.

Claudia tells me that she enjoys her college voice class, especially when she gets to sing, but that the other students often interrupt her when she talks, roll their eyes, and tell her that she is off topic. As she describes her interactions at school, her face becomes a grimace and her jaw appears frozen in a half smile. Her whole body becomes rigid for a few seconds before she continues to talk. I ask her how she feels when the others reprimand her. She responds by stating that she knows that she is better at singing and has more knowledge than them and is not worried about it.

Then Claudia tells me she wants to discuss her fear of being out after dark. She would like to take another theater class next semester, but it is only offered at night. I ask her what she is afraid of and she replies that she watches the news and has seen stories about assaults and abductions. Her face becomes a grimace again and her body becomes rigid. In response I ask her to write down her worries and to create a list of her coping skills. She enjoys using the markers and uses a lot of pressure as she draws out the letters and creates a border around her list. As I talk with her more about being aware of her surroundings, I ask her what that would look like. She shrugs her shoulders. She tells me she likes to look for cats and when she finds one she will drop down onto her knees and pet it regardless of where she is. I demonstrate what it looks like to be aware and show her how I might look around me, back and forth, to take in my surroundings while being vigilant. Next, I give her the collage box (which holds pre-cut images from magazines of people, animals, actions, nature, etc.) and encourage her to find pictures that show what awareness in people might look like as they do actions or talk to each other. I pick out a picture that illustrates this idea with a family sitting together at the dinner table talking to one another. She chooses a few images, but struggles with understanding and noticing the differences in the pictures.

These two examples illustrate some of the different challenges that appear in young people who share the same diagnosis. Josh struggles with self-motivation and social skills. He is aware of his awkwardness around others at the store or in social settings, but has little interest in changing this. Tasks like applying to jobs become unmanageable and almost burdensome to him. I often feel I have to tread on eggshells and need to keep a careful balance of asking without being too pushy to avoid him retreating into silence or shutting down. His co-occurring diagnosis of depression implicates the lack of motivation and not his diagnosis of autism. In contrast,

Claudia presents entirely differently. She is more socially engaged, is taking a class and meeting others, but is unaware of social cues from her classmates, which can be seen in her reaction that she has more knowledge than they do and is unaware that others find her lack of social cues annoying. She also uses repetitive and stereotypical movements (i.e., “stimming”). The plucking of feathers from the pillow is a self-soothing behavior for her which lowers her symptoms of anxiety.

For at least the past 10 years in the United States, the preferred therapy treatment for children and adults with autism has been cognitive behavioral therapy (CBT), due to a large amount of empirical research that underlines and supports its validity (Beck, 2005; Gaus, 2011; Lang et al., 2010). CBT focuses exclusively on supporting a client in modifying and changing negative thoughts and undesired behaviors. The development of coping tools that can help a client to be able to change negative thoughts into positive ones is an important aspect of CBT as well. Research has indicated that CBT is effective for treating anxiety, improving daily living skills, and supporting anger management (Hofmann et al., 2012). However, the CBT model does not address the particular needs of autistic clients (Attwood, 2004) who have difficulty with language and abstract thinking (Gold & Faust, 2010), and/or have body awareness challenges that impede interpersonal understanding and social skills. In the pages to come I will argue that a more holistic approach to therapy that incorporates visual, physical, and emotional experiences would benefit clients. I will discuss, in particular, therapeutic doll making as an art therapy technique that may be especially effective for enhancing and increasing social skills development and body/mind integration for adults with autism.

Currently, there is little literature regarding how art therapy can enhance treatment for individuals with autism, especially adults. I hope that the following literature review will

increase understanding by outlining existing studies and approaches to treatment and by illustrating the need for more research that includes the individual client's own meaning making and voice in the treatment process. The neurodiversity movement has made it possible for autistic individuals to be seen and heard and to see the diagnosis not as a deficit, but rather as a difference that has its own strengths (Armstrong, 2010).

History of ASD

In clinical terms, autism spectrum disorder is a neurodevelopmental disorder that is characterized, among other features, by impairments in social interaction, limited understanding of social cues and behaviors, and intensely personal interests that are repetitive and restrictive (Masi et al., 2017; Van Hess et al., 2015). ASD is regarded by mental health professionals as a lifelong and life-altering disorder (Newschaffer et al., 2007) not only for the autistic individual but also for their entire family (Ridderinkhof et al., 2018). This conceptualization of the diagnosis is not shared with the neurodiversity community which sees this not as a disorder, but rather a difference (Walker, 2014). ASD is the second most common developmental disability in the United States (Newschaffer et al., 2007). According to a 2014 report by the U.S. Centers for Disease Control and Prevention, 1 in 59 children at that time were diagnosed with ASD, and boys were diagnosed four times more frequently than girls.

Historically, the ASD diagnosis can be traced to the 1940s, when Kanner and Asperger first described their observations of certain unusual behaviors in young children (Holaday, 2012). Some of the young children that Kanner (1949) observed could not relate to others, preferred to be alone, and interpreted words very literally. They also engaged in repetitive behaviors and often were observed flapping their hands and turning themselves in circles (Tidmarsh & Volkmar, 2003). Around the same time, Asperger (1944) identified similar behaviors in children,

and particularly observed a difficulty with social skills and nonverbal communication. Both Kanner and Asperger used the word “autistic” to describe these children. Kanner faulted the children’s mothers for creating a child with autistic traits due to a rigid and detached parenting style that was without any warmth. He termed them “refrigerator mothers” and reported that he had observed mothers being reluctant to pick up their children; he also noted that both parents often were perfectionists and adhered themselves to very set rules (Kanner, 1949). What Kanner saw as disinterest in the mother toward her infant or child was placed by Wolff (2004) in the context of shared genes between parent and child, and thereby explained some of the same autistic traits of the parent that result in the diagnosis of ASD in the child.

In its early years of diagnosis and treatment, autism in children was believed to be a precondition of early onset of schizophrenia (Kanner, 1949). Along with patients with learning disabilities and psychiatric disorders, autistic children were institutionalized (Wolff, 2004) until the U.S. Education for All Handicapped Children Act of 1975 was enacted to ensure free public education for all children with disabilities (Pub. L. No. 94-142, 89 Stat. 773, 1975). As a result, children with autism were included for the first time in public schools and regular classroom settings. Concurrently, state hospitals that housed patients of all ages with diagnosed mental health conditions and other disorders began to deinstitutionalize care and shift responsibility to the private sector, which had the impact of returning children with autism to live with their families (Wolff, 2004).

By 1980, the *Diagnostic and Statistical Manual of Mental Disorders*, 3rd edition (*DSM-III*) had added the diagnosis of “infantile autism” under the classification of pervasive developmental disorders (American Psychiatric Association, 1980). The later, revised version of the *DSM-III* changed the diagnosis to “autistic disorder” (Smith et al., 2015; Tidmarsh &

Volkmar, 2003). In this version the age criteria changed to either younger than 3 years or older than 3 years and included 16 criteria areas. This led to many false diagnoses due to being overly inclusive.

When the *DSM-IV* was published in 1994, it included three different categories under autism: pervasive developmental disorder, autism, and Asperger's disorder (American Psychiatric Association, 1994). All three categories were classified by slightly different symptoms and severity. Pervasive developmental disorder was diagnosed when the onset of symptoms appeared to be later in life. Asperger's disorder differed from autism in that individuals with Asperger's had a good grasp on language acquisition and no language delay (Ozonoff, 2012; Young & Rodi, 2014). This evolving taxonomy suggests that the psychiatric community in these years was beginning to acknowledge that ASD is a very heterogeneous disorder: Symptoms present differently from one person to another, in terms of sensory challenges, social interaction, and degree of perseverance and repetitive thoughts and behaviors. These variations make it difficult to identify the diagnosis and to treat it efficaciously.

In the current era societal and clinical views on autism are rapidly changing, owing in large part to the disability rights movement that began in the 1960s. Among some of the rights that people with disabilities have fought for were equal rights and legal protection. The U.S. Americans With Disabilities Act was passed in 1990 and ensures equal rights in terms of living situations, equal opportunity to employment, and accessible public accommodations. Subsequently, the neurodiversity movement gained momentum as disabilities rights extended to autism (Owren & Stenhammer, 2013). Spearheaded by Judy Singer, a social scientist, autism rights are a plea for non-pathologizing acceptance and respect for the unique ways in which people on the spectrum view and navigate the world (Armstrong, 2015; Baron-Cohen, 2017).

The Autistic Self Advocacy Network (ASAN) was formed to advance the principles of the disability rights movement in regards to autism by helping to advocate for changes in public policy and access to the workplace and the educational system (ASAN, 2019; Silberman, 2015).

The need to shift public perceptions and clinical treatment is grounded in the fact that many people with autism see themselves in non-pathological terms; that is, as neurologically different instead of deficient (Fenton & Krahn, 2007). However, many therapists and educators still struggle to accept that autistic individuals can and should have a say in their own treatment. Wood and Milton (2018) gave an example of non-autistic individuals who were surprised to hear that autistic individuals are wanting to be part of their treatment and to share their views and perspectives with others. In support of neurodiversity, Baron-Cohen (2017) argued that autism is not a disorder per se but is rather the result of differences in how the brain is wired. He drew a distinction between disorder and disability, stating that when something is labeled as a disorder it requires treatment or a cure, whereas when it is labeled as a disability more understanding, acceptance, and diversity of differences becomes evident. The implication is that treatment models that aim to make individuals “normal” or “cure” them of behaviors that are divergent from the norm should be rejected (Gruson-Wood, 2016; Silberman, 2015). My clinical experience as an art therapist affirms these views in that I have found that treating clients with respect for their self-determination and working with their strengths can be effective in meeting their treatment goals. I support clients’ autonomy to decide on treatment options and also to find their own meaning in the therapy process. Art making, as described later in this chapter, is a potent vehicle for helping clients learn to experiment with different behaviors, to make mistakes, and to find different and new ways to approach their daily life—first through the art and then through daily problem-solving.

Armstrong (2015) has furthered this discourse by cautioning clinicians to reconsider labeling specific behaviors and characteristics of individuals with autism as problematic and to see many of these behaviors as strengths. For example, some individuals with autism have a unique talent for computer technology, and for machines and systems in general, which is especially useful in occupations that involve computer programming and managing databases. All of these skills involve high levels of systemizing, categorizing, and attending to minute details, which can be desirable attributes in people with autism if recognized rather than suppressed as outside the norm of acceptable behavior (Baron-Cohen, 2017).

The current *DSM-5* reflects some of these societal and attitudinal changes, mainly by revisiting prior criteria and clustering all three of the categories into one, naming it autism spectrum disorder (American Psychiatric Association, 2013). Additionally, another diagnosis was created, termed social communication disorder, which includes all of the ASD criteria except restricted repetitive behaviors (Smith et al., 2015). The new ASD diagnosis acknowledges the broad diversity of individuals, simplifies the diagnosis, and now includes sensory criteria as well (Caminha & Lampreia, 2012; Pasco, 2011; Robson, 2013). That sensory challenges are now part of the criteria to meet the diagnosis of ASD is a positive change, given that a high percentage (69–80%) of children with autism present with sensory difficulties (Caminha & Lampreia, 2012; Wing et al., 2011), such as fear of loud noises or flickering lights, or desire to chew on inedible objects, to name a few (S. J. Rogers & Ozonoff, 2005). Sensory challenges should be taken into consideration for treatment because they may affect the individual to such an extent that learning or taking in information can be even more strenuous for those with sensory challenges than some other characteristics of ASD (Caminha & Lampreia, 2012; Durrani, 2019; Magnée et al., 2011).

Neuroscience and Autism

Differences in Brain Functioning

Another aspect that is fairly new in the research of autism is genetic predisposition, which may be triggered by environmental factors that might cause or increase the probability of ASD. Lichtenstein et al. (2010) concluded that there is a high inheritability of autism, based on their study of an extensive sample of 16,858 interviews with parents of Swedish 9-year-old and 12-year-old twins. The researchers found that the heritability was 80% for an autism spectrum disorder diagnosis. Currently, it remains unclear which genes are linked to an increased incidence of ASD and whether or how some genes might interact with environmental factors (Newschaffer et al., 2007).

Research in the last 10 years has looked more closely at the neurological functioning of individuals with autism to disseminate differences as compared to the functioning of neurotypical individuals. Some findings suggest that the brains of 2- to 4-year-old children with autism have a larger volume (Ecker et al., 2015) and also that their brains are slower in processing information (Welsh et al., 2005). Many autistic children cannot process language cues as fast as neurotypical children (Welsh et al., 2005). Robson's (2013) meta-review of autism research concluded that appropriate early intervention with children on the spectrum may serve to develop new neuron connections through exposure to stimuli (especially visual stimuli) before the age of 7. She related this capacity to the concept of *neuroplasticity*, which refers to structural and functional changes in the brain due to ongoing life experiences. For example, children are more capable of developing language skills when parents or other caregivers talk regularly to them (Mundkur, 2005).

Although it was long thought that the brain was static and therefore resistive to all but the most limited interventions for severe or chronic conditions, such research as Mundkur's (2005) provides evidence that the brain changes throughout one's life. Malchiodi (2012) and McPartland and Pelphrey (2012) also have asserted that, due to brain plasticity that is more assessible in early life, interventions to develop interpersonal skills and activities to strengthen attachment are particularly recommended early in life. Mundkur explained that those neurons and synapses that are activated repeatedly become established, whereas others that are not used are eventually "pruned," meaning they become extinct and no longer available for the individual's functioning. For young children, thus, the brain's neuroplasticity helps to curb the severity of lifelong symptoms of autism (Robson, 2013).

Language is another area that is highly affected in children and adults with autism. We now understand that autistic individuals often process language differently and it may be harder for them to grasp abstract concepts such as idioms (Kana et al., 2006). An example from my own private practice is that when I used the idiom "do not put all your eggs in one basket" to warn a client to not become too focused on only a single college application, my client had no idea what I meant by my words and just looked at me, confused. Kana et al. (2006) found in their study that participants with autism tended to use more visual imagery to understand sentences when compared to neurotypical participants. This finding suggests that individuals with autism may rely on visualization to comprehend language, whether this involves low-imagery or high-imagery sentences. An example of a low-imagery sentence is the statement, "Addition, subtraction, and multiplication are all math skills" (Kana et al., 2006, p. 2488). Visual imagery is not necessary for comprehension. Kana et al. (2006) utilized functional magnetic resonance imaging (fMRI) and found that when compared with neurotypical participants, autistic

participants' lingual gyrus was activated more when processing low-imagery sentences. The lingual gyrus is utilized to process visual information (Kana et al., 2006).

Cockerham and Malaia (2016) looked at research and resulting theories on autism from across the behavioral sciences, neuroscience, and education. They found that although autism often is not detected until early childhood, most children who were later diagnosed with autism had struggled as early as infancy to pick up on the facial expressions and/or body cues of others. This difference has been detected in individuals with autism using EEGs, in which they showed little response to fearful or angry faces in particular. Thus, their visual processing networks appear to not pick up this information or do so in delayed fashion. Unlike neurotypical children, children with autism appear to utilize the limbic left-hemisphere amygdala network less frequently, which is the area of brain function related to emotion (Cockerham & Malaia, 2016; Mitrani, 2010). Several studies that utilized fMRI measures (Ecker et al., 2015; Klapwijk et al., 2016) also found reduced amygdala responses in the brain during empathetic resonance. In their study of 12 adults with autism and 12 neurotypical adults between the ages of 18 and 40 who responded to happy and sad faces, Monk et al. (2010) found an increase in activation in the right amygdala and ventromedial frontal cortex in participants with autism compared to those in the control group.

The connectivity of the amygdala and the frontal cortex is responsible for regulating emotions (Banks et al., 2007; Kim & Hamann, 2007; Richey et al., 2015), which is another important component of treatment. According to Richey et al. (2015), in autistic children there is a diminished capacity to decrease activation of the amygdala in response to negative emotions. Regulating emotions refers to the ability to respond to an event or social interaction by coping with it and minimizing negative emotions (Gross, 1998). When integration of internal (self) and

external (environment) processes is not achieved, dysfunction in regulation happens, which can show itself in rigid or chaotic ways (Siegel, 2012). In children with autism, dysregulation often manifests itself in tantrums, anxiety, irritability, or self-injury (Lecavalier, 2006). However, self-regulation cannot be discussed without examining the role that attachment plays in regulation emotions for an infant.

Attachment

Ainsworth (1969) described attachment as a tie or deep bond that one forms to another person, which in the case of infants serves survival because they are completely dependent on others for their care. Attachment is a two-way process between the child and caregiver as they work to be in sync with each other (Ainsworth, 1964). Four different patterns of infant attachment—secure, avoidant, resistant or ambivalent, and disorganized (Siegel, 2012, p. 101)—developed out of Ainsworth’s study of 28 babies and their interaction with their mothers over a 2-week time period (Ainsworth, 1964; Bretherton, 1992). Infants who have attachment figures who are responsive and available to their child’s needs are securely attached. In contrast, infants who must rely on unavailable or rejecting caregivers become avoidant. When parents or caregivers are inconsistent (both available and then unavailable), infants attach to them with behaviors that reflect resistance, signs of anxiety, and difficulty being consoled. Finally, disorganized attachment occurs when parents or caregivers are frightening to the child and/or disorganized in their caregiving (Siegel, 2012). Children with autism can achieve a secure attachment, although this seems to depend on the severity of their autism and the quality of social interaction between the child and parent or caregiver (Rutgers et al., 2007). Seskin et al. (2010) studied 40 parent–child dyads with children ranging in age from 4–16 years who attended a therapeutic day school for children with neurodevelopmental disorders, including pervasive

developmental disorder and autism. They found that children with autism in the sample who were securely attached engaged in ways that were closer to the behaviors of neurotypical children in social interactions, such as being able to take turns and engage in reciprocal smiles.

Mirror Neurons

Research suggests that individuals with autism may struggle to perform tasks that involve emotions or that require imitation and sequencing of a specific task. An example is Cossu et al.'s 2012 study, which examined a small sample of 15 children with autism (with a mean age of 8 years) and their ability to imitate a behavior or action. Data from the children with autism were compared to two children without autism (one from a primary school and the other from kindergarten), based on nine behavioral motor tasks. The researchers compared (a) imitation of actions, (b) production of pantomimes, and (c) comprehension of pantomimes. One task was to watch someone drink from a glass and then to repeat the same action. Another task was to see a picture of a tool and then show how the tool was used. The researchers found that the autistic children were less able to perform all of the given tests that required imitation, which they suggested may be due to an absence of mirror neurons in their brain functioning.

Mirror neurons were discovered in the mid 1990s by Gallese and other Italian neuroscientists, who posited that the same neurons were activated when a monkey ate a peanut as when it saw someone else eat a peanut (Gallese, 2009; Siegel, 2012). Mirror neurons are defined as “premotor” neurons that fire when an individual anticipates that an action is about to be taken and also when observing someone engaging in the action or understanding the intention of that action (Iacoboni et al., 2005). Gallese (2009) theorized that the mirror neuron system is implicated in the ability to empathize and is grounded in (a) our lived body experience and (b) how we recognize other people who are like us (p. 525).

Cossu et al.'s (2012) research and other recent studies (see, e.g., Franklin, 2010; Lamm & Majdandžić, 2015; Mitrani, 2010) are extending the neuroscience discovery of Gallese (2009), who also was the first to propose that the mirror neuron system in children with autism may be the reason for their difficulty with imitation tasks and with outward feelings of empathy. Empathy plays a major role in how a person is able to relate to the experience of another person (Siegel, 2012). By understanding what other people experience, the individual can evaluate and anticipate the behavior of others. A parent can anticipate the needs of a child, which is necessary for the young child's survival.

Singer et al. (2004) studied how the pain that a person experiences is reflected in those close to them. The study used 16 different-gender couples in which the female partner's brain activity was monitored both while she experienced pain in her right hand through an electrode and while seeing her partner also receive the same inflicted pain. The researchers found that empathizing with the pain of others did not use the whole pain matrix as it did for participants' own experience of pain. This outcome suggests that our own sensory experience is not activated as much when seeing someone else in pain, as our own body is not receiving a negative stimulus; rather, a subjective discomfort is experienced (Singer et al., 2004).

There are three different kinds of empathy (Bons et al., 2013): motor, emotional, and cognitive. Motor empathy is described as the ability to mirror the facial expression of another person. Emotional empathy, on the other hand, is related to the experience of emotions in regard to others. Cognitive empathy is the ability to recognize emotional states in others and to be able to understand the perspectives of others (Klapwijk et al., 2016). According to Bons et al. (2013) and Jaarsma (2013), individuals with autism may struggle with empathy. Smith (2009) hypothesized that there is an imbalance in empathy, especially between cognitive empathy and

emotional empathy in autistic individuals. He argued that autistic individuals actually have an unusual high amount of emotional empathy that they manage by trying to avoid empathetic arousal. Bons et al. (2013) hypothesized that this condition is tied to the difficulty that many autistic individuals have with making eye contact and watching the gaze in others. Molnar-Szakacs et al. (2009) posited that children with autism spend more time looking at objects than people. Eye contact helps individuals to recognize emotions in others (Itier & Batty, 2009).

Art therapy and other creative therapies can increase empathy. This idea is substantiated by Molnar-Szakacs et al.'s (2009) meta-review of studies that examined the effect of music on individuals with autism, including music listening, pitch recognition, and singing memory. It was hypothesized that music has the power to stimulate emotions and therefore possibly activate mirror neurons in the brain functioning of children with autism. The researchers observed that these children do not have difficulties in recognizing emotions in music and posited that this difference could be due to the repetitive and predictability of musical sounds, which the children may utilize to make the connection to music and to an emotional response.

Freedberg and Gallese (2007) proposed that certain artwork (i.e., sculptures and paintings) can create bodily empathy in the viewer. The activation of mirror neurons enables the viewer to feel as if they are in the same position as a human figure in a painting (Gibbs, 2013) or when identifying with the painter's perspective. Franklin (2010) provided another example in his description of how the art he created and showed to clients in response to their depression evoked their empathy and curiosity, and also allowed them to give voice through the art to their own struggles. Gradually, after utilizing support from Franklin's empathetic art responses, his clients were able to directly speak about themselves and their condition.

There continues to be a controversy between findings of a deficient mirror neuron system in individuals with autism and those studies that have not found any evidence for this (Enticott et al., 2012). Other studies (Raymaekers, Wiersema, & Roeyers; 2009), among them Hamilton, Brindley, and Frith (2007) tested imitation tasks with a control group of children without autism and children with autism and both groups were able to complete the tasks similarly. The results suggested that there is no mirror neuron deficit in autistic children. Marsh and Hamilton (2011) also did not find any deficits in the parietal mirror system for 18 male participants with autism who viewed movie clips of objects and shapes being moved and manipulated by a hand. Their conclusion was that the brain merely responds differently in individuals with autism than in neurotypical participants. I believe that the wide range of ASD symptoms and how the diagnosis presents differently in each individual could be responsible for these inconclusive findings.

If it is true that children with autism have difficulty relating to other children because of deficits in mirror neurons that are related to empathy, as described in the studies that have been previously discussed, then art therapy may be a way to bridge this deficit. Hass-Cohen and Findlay (2015) described how empathy can be strengthened through art therapy as follows:

Client and therapist can arrive at a felt sense that “I, the therapist, see you, hear you; I sense you and understand you.” Witnessing, participating in, and anticipating kinetic action such as touching media, activating tools, and incorporating found images of people in movement are some of the processes involved. (p. 369)

Three Models of Treatment

From current literature on clinical treatment for individuals with autism, it appears that there primarily are three main models: (a) cognitive behavioral therapy, (b) sensory integration, and (c) mind/body awareness. All three models were developed in response to the challenges

autistic individuals experience in their daily functioning, which arise from the need to express and regulate emotions, to manage behavior that is affected by sensory over- or under-stimulation, and to gain body/mind integration in order to increase well-being and reduce the anxiety that is a frequent feature of ASD. Within the CBT model, which predominantly addresses anxiety and social skills development, applied behavior analysis (ABA) and relationship development interventions attempt to target specific behaviors that can be altered, reinforced, and shaped into skills (Jensen & Sinclair, 2002).

Cognitive Behavioral Therapy

Cognitive behavioral therapy was pioneered in the 1970s by Beck (2005), who recognized that a person's core beliefs are learned early in life through interactions with others and the environment. Today CBT is still the most researched treatment using an evidence-based framework (David et al., 2018). CBT attempts to change a person's cognition from maladaptive or negative schemas to more positive and effective ones. Therapists and clients work together to address a client's thought patterns, feelings, and behaviors. CBT focuses on the here and now, which means working on specific goals, and it is often time-limited (Leichsenring et al., 2006). This treatment focuses on increasing coping skills, challenging distortions, and utilizing relaxation skills to reduce anxiety (Gaus, 2011; Lang et al., 2010). An example of learning a coping skill is focusing on reducing stress and teaching time management skills. This could be achieved by giving an individual with autism an activity log and assigning approximate times to it (Gaus, 2011). However, according to Creed (2015) and in keeping with the neurodiversity discourse, CBT is not used to treat autism itself; rather, it exists as a treatment for the accompanying anxiety that individuals may experience.

Part of CBT is the use of applied behavior analysis, especially for children 2 to 8 years of age (Lovaas Institute, 2019). ABA focuses on real-life behaviors that are observed and targeted in order to be changed. All of the behaviors have to be observable and measurable and are based on principles of learning (Kearney, 2015). The Lovaas Institute (2019) described sessions as occurring for 35 to 40 hours per week. Behaviors in the child are observed and then changed by redirecting and reinforcing more appropriate behaviors (Jensen & Sinclair, 2002). Sessions include structured time in which new skills are introduced and also breaks for play time. ABA is currently controversial due to its exclusiveness of treatment for ASD and because of its often rigid and narrow approach (Simpson, 2001). I have personal experience of the negative effects of this approach. I once had a client who received ABA for many years as a young boy. When he was 11 years old, he started seeing me. He would not do anything unless it was tied to a reward and profited him instantaneously or he would throw himself on the ground or start yelling. His interpersonal skills were almost nonexistent and it was difficult to implement any other kind of therapy because of his fixation on rewards that has been reinforced and learned in ABA.

Sturmey (2006) argued that CBT for people with autism is mislabeled as such and should include ABA therapy. ABA is an approach that aims to change a specific behavior in a person (Kearney, 2015). Sturmey (2006) asserted that CBT is a name for treatment that actually clusters different interventions and methods into one overarching theory to address interventions for autistic clients. He confirmed that CBT approaches with clients with autism actually include much behavior reinforcement and parent involvement that are not part of CBT when it is applied with neurotypical clients who suffer from anxiety.

As a relevant adaptation of CBT for this population, Lang et al. (2010) suggested that a clinician could integrate a client's special interests into the treatment as well as social stories that

challenge distortions and increase problem-solving skills. To clarify, a special interest for a child with autism may present as an extensive or almost professional knowledge about a certain topic. This could be a fascination with video games, movies, animals, or sports statistics (Jordan & Caldwell-Harris, 2012). If a special interest is integrated into learning at school or when performing a task, it is more likely to create a positive cognitive anchor or personal connection for the child and might also strengthen self-esteem (Stallings, 2019; Winter-Messiers, 2007).

Anxiety and CBT

The use of cognitive behavioral therapy with individuals with autism stems from clinical observation of the anxiety symptoms that are most often co-occurring in this population. It has been estimated that about 80% of children diagnosed with ASD also suffer from anxiety (Nadeau et al., 2011). CBT with neurotypical children has shown great success, especially in regards to reducing anxiety symptoms by having parents and their children learn strategies to change negative thoughts and implement more relaxation techniques (David et al., 2018). The assumption was made that it would also help autistic children, especially if it was adapted to this population by adding visual aids (Ames & Weiss, 2013; Gaus, 2011; Lang et al., 2010). However, Kreslins et al. (2015) concluded from their meta-analysis of relevant research that anxiety in individuals with autism is different in that it presents with more social avoidance, aggression, and repetitive behaviors than found in neurotypical individuals. Repetitive behaviors (e.g., stereotyped movements, resistance to change, and rigid routines) in people with autism are often linked to increased anxiety (Rodgers et al., 2012) and appear to be a coping strategy.

CBT has been found to be effective at reducing anxiety by giving clients very structured activities to facilitate the process of changing thoughts from negative ones to positive ones or to desensitize thoughts by exposing the clients to objects they fear (Ames & Weiss, 2013; Crawford

et al., 2018; Hesselmark et al., 2014; Van Steensel & Bögels, 2015). Sze and Wood (2007) offered the example of a 10-year-old boy with autism and a fear of failure in school. The authors encouraged his parents to give their son easier, more manageable assignments to reduce his worry about homework. Gradually, he needed fewer reminders from his mother and experienced success and readiness to work on more difficult assignments. Long-term studies of CBT with autistic youth have shown improved coping with anxiety (Chalfant et al., 2007; Sze & Wood, 2007); however, these results have been found only in participants with no other cognitive impairments (Maddox et al., 2017). Some of the literature suggests that children with autism who have other cognitive impairments, such as below-average intellectual functioning, would not benefit from CBT because the treatment is focused on self-analysis and monitoring of one's own cognition and behaviors (Ames & Weiss, 2013; Moree & Davis, 2010).

In my opinion the need to modify CBT in order to produce particular changes for autistic individuals with anxiety does complicate how it is researched and suggests that the modified treatment should be called something different to avoid confusion with the original treatment. There is an ongoing debate as to whether CBT is effective for ASD, due to the fact that CBT is typically language-based (e.g., Sukhodolsky et al., 2013; Van Steensel & Bögels, 2015). As a result, it can be difficult for individuals with autism to understand and apply the strategies, although modification through visual aids, including drawing and role-play activities, may be helpful (Ekman & Hiltunen, 2015). It is also important to incorporate parent or caregiver psychoeducation and involvement in treatment for autistic children in order to make CBT treatment more successful by reinforcing behaviors at home that have been implemented by a therapist in sessions (Puleo & Kendall, 2011; Moree & Davis, 2010; Sze & Wood, 2007). Among the shortcomings noted in the literature, most studies have been conducted with higher

functioning individuals (Kreslins et al., 2015) and few studies have evaluated the long-term effects of CBT to reduce anxiety in adolescents or adults with autism beyond more than 1 year (Nadeau et al., 2011).

CBT and Social Skills

Cognitive behavioral therapy also has been used to help improve social skills for children and adults with autism. According to Epp (2008), children with autism typically struggle to understand the ideas and ways of thinking of others and have difficulty connecting emotionally to others. In social interactions and among peers, these children are often labelled as “awkward,” “socially unaware,” or “stiff.” Many autistic children and adolescents experience high levels of loneliness, bullying, and peer rejection due to social challenges (Laugeson & Park, 2014).

Often children or adults with autism have difficulty understanding and interpreting nonverbal social cues (Rao et al., 2007). An example that comes to mind is that when my session with a client is done, I get up and stand by the door. I often have to repeat to autistic clients that the session is over and that the next client is waiting before such clients will get up and leave. CBT is very structured and predictable in how it targets thoughts and behaviors and is therefore comforting to those autistic clients who can relate treatment to stable patterns and repetitions in their own lives (Hesselmark et al., 2014). A meta-review of 10 different research studies on ASD and social skills, some of which included the integration of CBT, was inconclusive as to the effectiveness of CBT (Rao et al., 2008). The authors cited a lack of consistent outcomes in social skills training programs, which they suggested was partially due to differences in duration of treatment, small sample size, and inconsistency in defining “social skills deficit” in children with ASD operationally across the reviewed studies. The authors recommended greater consistency in

future social skills studies' research and theory, in support of observable, long-term changes in individuals with autism.

One CBT approach that focuses solely on teaching social skills and recently has become more widely known and utilized was developed by the Semel Institute for Neuroscience and Human Behavior at the University of California–Los Angeles. The Program for the Education and Enrichment of Relational Skills (PEERS) model teaches social skills in a small group format with a step-by-step method that focuses on psychoeducation, role-play of good/bad examples, and rehearsing of new learned skills, such as perspective-taking and problem-solving skills (Karst et al., 2015). An example of a PEERS strategy taught to autistic individuals is how to enter a conversation by integrating into it. The clients practice how to watch and listen to the conversation and then to identify the topic of the conversation in order to find a common interest in the topic. The social rule learned is that only when there is a break or pause in the conversation does the client join in. This example illustrates the CBT concept of breaking a social interaction into small increments that are taught step by step to the client (Laugeson & Park, 2014).

Parent involvement also has an important role in the PEERS method. Parents meet in separate groups from their children during social skills trainings, where they learn to become “social coaches” to their child or teenager. This intensive participation of the parent or caregiver is unique to the PEERS program (Laugeson & Park, 2014). Because parent involvement is strongly reinforced in the PEERS method, there is potential to reduce chaos in the home, which has been identified in families with autistic family members, especially teenagers (Karst et al., 2015). Karst et al. (2015) surveyed 64 parent–child dyads who were involved in 14 weekly sessions of PEERS training and homework exercises. The parents reported that there was an

increase in stress initially, but that it decreased after their child started to have more social interactions with peers and other people. The implementation of routines and structure into family life was of great importance and possibly helped to reduce family chaos (Karst et al., 2015).

An earlier example of research on social interaction in children and teenagers with autism utilized peers and peer tutors (S. J. Rogers, 2000). Neurotypical children helped to teach social skills to children with autism by prompting and reinforcing positive behaviors. S. J. Rogers (2000) posited in her review of studies on this topic that peers can help autistic children and teens navigate better through social situations. Although a positive strategy, it also could create a social hierarchy between the neurotypical child (i.e., thinking they are better than the autistic child), which is something that has to be taken into consideration. S. J. Rogers (2000) commented that physical integration of children with autism in classrooms does not necessarily mean social integration.

The previous examples described how parent and/or peer involvement can improve social behaviors and also create change by learning new behaviors of social interaction that are more acceptable to neurotypical people. However, this outcome can only be achieved through the treatment-focused repetition of desired tasks and social interaction that are learned, in part, by observation of others.

Play Therapy and Social Skills

One treatment approach and a viable alternative to CBT is play therapy, especially for young children with autism. What is largely missing from CBT is participants' self-agency in which their own meaning and creativity are developed. Winnicott (1971) did not address children with disabilities when he laid out the importance of play in therapy, yet it does seem relevant to

autistic children: “Playing is an experience, always a creative experience, and it is an experience in the space-time continuum, a basic form of living” (p. 67). I think this idea by Winnicott highlights the experiential process of play through which a child, with or without autism, learns new ways of interacting with the world. I have observed that it might take a child with autism weeks of repetitive play before one day suddenly the child shifts to find a new toy to play with.

The main difference between CBT and play therapy is that play therapy usually has less external direction in that the child is encouraged to find their own ways of problem-solving (Guerney, 2001; Homeyer & Morrison, 2008). Play therapy also can address how to build social skills by developing emotional skills and interacting with others through play. Axline (1955), who invented child-centered play therapy, laid out key principles that are still in use today, stating the importance of a child being respected and seen as a whole person, of the therapist following the lead of the child and allowing the child free expression, and of trust in this process. Placing the child at the center of the therapy is closely related to C. R. Rogers’s (1961) person-centered therapy. In child-centered therapy the therapist helps autistic children find more appropriate toys and strategies for sensory stimulation to reduce restricted repetitive behaviors (Hillman, 2018).

A study by Overley et al. (2018) interviewed 10 registered play therapists and supervisors who endorsed child-centered play therapy as beneficial for children with autism. In particular they noted the effectiveness of the environment of the playroom, which was seen as safe and allowing for increased flexibility in the children’s play behaviors. Two other main components that were effective in this approach were the positive relationship to the therapist that supported a nondirective play approach and the role and interaction between parent and child when together

in the session. Parents formed a closer relationship to their autistic child and connected through the use of play.

A qualitative study by Salter et al. (2016) illustrated behavior changes over the course of 10 weekly sessions of play therapy for three boys with autism. One boy, who had been identified by his parents as aggressive and having difficulty verbalizing emotions, used sword fighting in the beginning sessions of therapy. By the middle stage of therapy, he had become less overtly physical in his interactions and had reduced his sword fighting, choosing instead to engage in problem-solving with his therapist. At the end of therapy, the play revolved around nurturance and social interaction (Salter et al., 2016).

In their study of 25 elementary school children in a special education classroom, Lu et al. (2010) observed how self-regulation and increased flexibility was achieved in autistic children through play therapy using sand play. One 9-year-old boy with autism learned on his own to find the right consistency of water and sand by mixing it with his hands. After only 4 weekly sessions he was able to play on his own for an extended time period of 45 minutes and made eye contact and responded positively to other children. Before these sessions, he had been restless and had limited attention, had dropped toys, and had made unintelligible noises with his voice. Although most of the children at the beginning of each session kept their figures and their play very structured and repetitive, through the course of 10 weeks of therapy they started to notice each other's play scenarios and expanded their capacity for spontaneous play with miniature figures and objects.

A case study of a 3-year-old boy's use of sand play, shared by Cao et al. (2013), found similar outcomes. The boy improved his social skills and was able to respond and talk more freely at the end of 50 weekly sessions. In contrast, at the beginning of treatment, he had been

withdrawn with many crying outbursts at school and at home when he was unable to express himself and his needs.

The previous examples demonstrate how key it is for children or adults to be given the opportunity in therapy to freely explore on their own, without having to meet specific set goals (Lu et al., 2010). One theory of why play and sensory integration may be central for treatment for children with autism was suggested by Kuhaneck and Britner (2013). They proposed that a lack of body awareness is what makes it difficult for the children to fully understand how to manipulate toys and to play with them in creative ways. For the autistic child, the relationship between object and body in the spatial environment may not be congruent.

Sensory Integration with Individuals with Autism

After CBT, the second most common treatment model is *sensory integration*, which focuses on improving self-regulation in autistic clients through sensory or kinesthetic experiences. Self-regulation is the response to sensory stimulation and the ability to regulate emotions accordingly (Gomez & Baird, 2005). Self-regulation abilities are developed in the first few months of life when the infant takes in their environment and relates to their caregivers. Experiencing positive interactions with caregivers and comforting objects contributes to the child's ability to self-regulate (Gomez & Baird, 2005). Some of the indicators of difficulty with self-regulation are irritability and sleep disturbances (Gomez & Baird, 2005; Laurent & Gorman, 2018). In a study by Samson et al. (2015), parents and children reported, via daily diaries and parent questionnaires, the use of more restricted repetitive behaviors when regulating such emotions such as anger, anxiety, and amusement.

The sensory integration treatment model was developed by occupational therapist Jean Ayres. Ayres (1972) spearheaded ideas of modifying the environment for children with learning

disabilities and special needs and creating sensory-based activities in classrooms and homes to help these children function and thrive better in those spaces. She developed a sensory integration model that she believed would help to organize sensory information and activate necessary functions in the brain. Thus, in sensory integration therapy a controlled and planned sensory input is offered. Ayres stressed the importance for treatment to focus on sensory input through the interaction with motion in particular. A study by Watling and Dietz (2007) tested Ayres's sensory integration model with autistic children to reduce undesirable behaviors, such as scratching, biting, or other repetitive motor behaviors. The outcomes did not show significance in behavioral change as compared to standard play therapy. The researchers questioned whether such changes are more difficult to observe right after the activity or have longer-term effects (Watling & Dietz, 2007). A child's preoccupation with sensory stimuli (e.g., flapping, smelling, and spinning) can make learning difficult and reduce or prevent exploration of the surrounding environment. The child is not taking information in during the time they are preoccupied (Zachor & Itzhak, 2014) and might even be experiencing painful reactions to sensory stimuli that their sensory preoccupation may be attempting to mitigate or control. For example, bright lights or loud noises, such as fire trucks or alarm bells, can be extremely distracting and reduce the child's ability to focus on learning (Howe & Stagg, 2016).

Children with autism often exhibit sensory sensitivity and may show a delayed response to the behavior of others. Cockerham and Malaia (2016) posited that this response may be due to the need for more time to process sensory information due to a lack of interconnectivity between emotions, cognition, and learning. Part of the sensitivity to touch, for example, may be connected to a diminished response along the anterior-posterior axis of the insula in the brain (Failla et al., 2017). Neurotypical babies, by contrast, engage and respond to their environment and to the

emotions of others and learn from their experiences on how to integrate into life and how to form interpersonal relationships. Babies who do not develop these skills may already struggle early on to make sense of the environment that surrounds them and have difficulty attaching to caregivers and other individuals (Caminha & Lampreia, 2012).

Many children with autism exhibit sensory-seeking behaviors that serve to heighten and control sensory input. Some sensory-seeking behaviors include running and bumping into objects or having a high tolerance to pain (e.g., not feeling a burn). Other children with autism have sensory under-responsivity, exhibited by such behaviors as withdrawing, seeking quietness, and playing their own games without risk of highly stimulating interactions with others. Wigham et al. (2015) found a correlation between sensory under- or over-responsiveness and repetitive behaviors and intolerance of uncertainty. Children also can have sensory defensiveness (e.g., refusing to brush their teeth or hair, refusing to wear certain items of clothing, etc.), which creates high levels of anxiety and a fight or flight response. Sensory overload occurs when the person is unable to filter out background sensations and everything becomes overwhelming. Durrani (2019) suggested that when autistic children feel overwhelmed by too much sensory discomfort, they may become unresponsive and shut down. Background sensations that can be overwhelming include loud noises and big crowds (Robson, 2013).

Body and Mind Connection in Individuals with Autism

A third approach to treatment for individuals with autism, according to contemporary literature, is to reinforce the body/mind connection that is often missing or limited in this population. Connecting the body with the mind is important for knowing internal body states related to emotions. This is called *interoception*, or the understanding of how internal feelings that are produced within a person's body translate to emotions and needs (Mahler, 2015). An

example of interoceptive awareness is the sensation of feeling hungry or hurt and then relating the emotion of sadness to this state. Not having this internal awareness of bodily sensations creates a disconnect between stimulus and response and may cut off a person's internal sense of self from their outside self. People with autism have been found to have less interoceptive awareness, which may account for their struggle with self-regulation and relating to others (Mash et al., 2017). Neuroscience supports this observation of the importance of the body/mind, showing that emotions, feelings, and consciousness can only be experienced in response to the body (Damasio, 1999). As Damasio (2018) discussed, the different parts of the brain and the body inform each other and interact to create feelings, such as sadness, happiness, and anger. Both body and brain are in movement and the brain receives information from different parts of the body.

There is very limited research on body image issues in individuals with autism. Most of the examples that discuss difficulties with body image and the body/mind disconnection come from anecdotal stories by autistic authors. Grandin (1992) explained that she was motivated to develop a machine to feel pressure, which she later contributed to the advance of compassionate care in the beef industry, from her own discomfort of being touched by others; the feeling of deep pressure on her body helped to reduce anxiety for her. Asada et al. (2018) also illustrated body image disruption with an example of the Japanese writer Nikki who explained that he was only aware of his legs or other body parts when they were in plain view and not hidden by a table or other objects. A recent study by Asada et al. (2018) with a sample of 17 participants with autism found that they either over- or underestimated their body size depending on the prevalence of autistic traits. Participants with fewer autistic traits estimated the size of their shoulder width more accurately than those with greater autistic traits. The researchers suggested

that inaccuracy of body size may be due to sensory processing problems that create difficulties with body awareness from early in life.

Body image also is implicated in the struggle to form interpersonal relationships. It is the body image that helps to form a concept of self (Kaslow & Eicher, 1988). Kaslow and Eicher (1988) drew from treatment for clients with anorexia nervosa to outline how sensory awareness and body awareness are connected and need to be integrated, which is also relevant for clients with autism. Both populations struggle with social interaction and empathy and portray narrow interests or special interests in a specific topic. People with anorexia nervosa have as their special focal topic food and weight, whereas people with autism might have other special interests. However, both are preoccupied with the self, might show limited empathy toward others, and lack social engagement skills (Baron-Cohen et al., 2013). Karjalainen et al. (2019) found an overlap between anorexia nervosa and ASD in the way that food gets categorized or organized by color or number of food items and rigidity. They claim that autistic traits in individuals with anorexia nervosa may be present before and after weight gain.

Another body-focused research area besides ASD and eating disorders is with individuals who have experienced trauma. People with a trauma history may feel less pain and/or numbness while being in a dissociative state. Likewise, individuals with autism may have little to no awareness of self and body, although due to different physiological circumstances. Self-awareness of one's own body is important in order to feel and have a sense of control of over life. van der Kolk (2014) discussed that trauma keeps a person frozen or stuck in that time and recently suggested that yoga seems a way to become aware of bodily sensations without being stuck in fear. I think that yoga could also help a person with autism experience their own body, including sensations. People with autism often have difficulty processing proprioceptive

information, which interferes with motor simulation (Conson et al., 2016). Proprioception is the understanding of where the body is in space and how to move it (Fuentes et al., 2011). People with autism often have a diminished ability in proprioception, which can result in having poor balance. Riquelme et al. (2016) tested limb proprioception in 27 children with autism and 30 neurotypical children. They assessed the capabilities of upper arm limb movement while participants were wearing a sleeping mask. The autistic participants struggled more to perform the tasks. The idea that yoga can improve body posture and body awareness, including proprioception, in children with autism was substantiated by a small study conducted by Radhakrishna et al. (2010) of six children, ages 8–14 years, who participated in 5-hour weekly yoga therapy sessions over two academic school years. Small changes were seen after 12 sessions, as reported by the authors and also by parents. Children were aware of their breathing patterns and able to take deep breaths, and also were able to physically approach the yoga therapist during chanting (Radhakrishna et al., 2010).

The body/mind connection is understood to be an important component in Eastern medicine, especially in China, to promote physical and mental well-being (Chan et al., 2013). A study conducted by Chan et al. (2013) concluded that Nei Yang Gong, a method of slow movements and awareness of breathing that is similar to the methods used in Tai Chi, can improve self-awareness in children with autism and increase their sense of self-control in a shorter time than CBT. In this study, 46 children with autism between the ages of 6 and 17 participated. Children were matched by age and intellectual level and placed into a control group that offered progressive muscle relaxation or the experimental Nei Yang Gong. Changes were measured with three neuropsychological standardized tests on self-control, parents' questionnaires on observed behaviors in the participants, and EEGs of brain activity. The authors

claimed that a change in body/mind awareness and brain functioning (elevated activity in the anterior cingulate cortex) could already be perceived after 1 month of twice-weekly 1-hour sessions in the experimental group. The control group showed no change in the brain functioning and fewer self-control abilities were reported in the parent questionnaires. Chan et al. (2013) recommended this model for children with autism who have limited verbal skills and intellectual functioning, due to its simplicity in learning the slow movements and limited need for language understanding.

Another method to increase a sense of self and body awareness is through dance/movement therapy (Pallaro, 1996). As discussed previously, often autistic children have difficulty with fine and gross motor skills and with understanding their body in space. Dance/movement therapy (DMT) helps to increase flexibility by mirroring the therapist's movement and using it to expand one's own existing movement repertoire. The main goal of DMT in this situation is to increase body image and awareness of the mind and body as connected and inseparable (Scharoun et al., 2014). For example, body awareness in DMT may be achieved by slapping or patting one's own body or by finding one's own rhythm through hand-clapping or foot-stamping (Pallaro, 1996). Another example is the DMT strategy of carrying the child around a room or allowing them to feel the sensation of falling and then being caught by the therapist (Scharoun et al., 2014). As with other expressive therapies, DMT offers a holistic approach based on a relational connection between therapist and client.

Another program that tries to increase body awareness in individuals with autism is the psychomotor intervention program (ElGarhy & Liu, 2016). The psychomotor intervention program helps to create an understanding of body awareness and body in space and time. This practice trains individuals with autism to increase their spatial awareness by learning to judge

distances and sequence events utilizing directional awareness, which refers to concepts of movement of left-right, top-bottom, and temporal awareness, which is related to a time structure and includes rhythm of movement. The study conducted by ElGarhy and Liu (2016) included 14 children with autism and 14 neurotypical children in the age range of 4–5 years. The children with autism received training in the psychomotor intervention program three times a week for 10 weeks. Each session included a 5-minute warm-up, 25 minutes of psychomotor activities, and 10 minutes of relaxation. The control group followed their normal educational program throughout the day. The outcomes of this study showed an improvement in balance, posture, relaxation, and mood among those in the experimental group.

Mindfulness

The growing use of mindfulness as a concept in therapy has its root in contemplative Zen Buddhist traditions (Crane et al., 2017). Mindfulness is the experience of inner awareness with consciousness about the surrounding world. Both the self and awareness of the self are cultivated through paying attention, as well as toward the greater world around one, with the goal of achieving harmony and balance through conscious living in the present moment (Kabat-Zinn, 2005). Kabat-Zinn (2005) popularized the practice of mindfulness through his development of a mindfulness-based stress reduction program, which is now a standard approach for helping individuals manage the demands of living. Distressing events negatively influence a person's mind and body, but new ways can be learned to reduce emotional stress (Crane et al., 2017). Practices of mindfulness have been integrated into mental health care for a variety of disorders, especially anxiety and depression (Shonin et al., 2013). An example of implementing mindfulness is to be able to recognize a feeling of anxiety and not act on it or avoid it by regulating it with maladaptive behaviors, such as drinking or overeating. Instead the person is

aware of the feeling and can step back from it without being engulfed in it completely (Shapiro & Carlson, 2009). Mindfulness practices can be easily incorporated into daily activities and be as simplistic as walking, yoga stretches, or noticing and practicing breathing (Conner & White, 2018).

Currently, mindfulness practices are used within body/mind treatments with clients with autism. Because there is comorbidity of ASD with anxiety and depression, mindfulness practice with this population has become an alternative treatment approach as can be seen by Hourston and Atchley (2017), who reviewed literature on the topic of mindfulness with autistic individuals and found a few studies that illustrated improvements in reducing depression and anxiety in people with ASD. A similar outcome was observed by the studies of Kiep et al. (2014) and Conner and White (2018), who also found there to be a reduction of rumination and long-lasting effects in autistic individuals as a result of mindfulness-based practices. Rumination is defined as perseveration on specific topics or an extreme worry and negative thoughts that are never-ending (Thomsen et al., 2004).

The study by Conner and White (2018) with nine adults with autism and anxiety and depression found an increase in self-regulation and a reduction of rumination after six weekly individual therapy sessions that included deep breathing and psychoeducation on depressive symptoms and how to reduce these. Two different studies of parents and their children with autism found improvement in overall well-being and in parent–child interaction after engaging in a mindfulness-based program. The positive effects of the mindfulness-based program lasted for up to 1 year and aggression and self-injurious behaviors (such as kicking and denting walls and skin-picking) were significantly reduced (Hwang et al., 2015; Ridderinkhof et al., 2018).

Mindfulness Versus Flow

The constructs of mindfulness practices and flow are discussed in this paper because both involve the sense of relief from stressful situations as the focus of treatment as well as focus on the present moment as helpful in reducing negative behaviors in individuals with autism. This has been demonstrated in the previous examples on mindfulness practices and will be outlined in the following examples on flow. While mindfulness with autistic individuals has shown some success in transforming a sense of overall well-being (Conner & White, 2018; Keenan-Mount et al., 2016), flow is another aspect of some treatments by which individuals with autism can experience a sense of success or at least a feeling of calmness. Mindfulness requires nonjudgement and a sense of detachment while a flow state requires cognitive flexibility, which is already part of mindfulness. Cognitive flexibility is an integral part of flow, due to the challenges and demands of an activity that creates a flow-like state (Moore, 2013).

The theory of flow was developed by Csíkszentmihályi (1990) from his doctoral research on how artists create a painting. He observed that they enter a state of full engrossment with the specific task of painting in which a sense of self becomes almost irrelevant to the situation (Csíkszentmihályi, 1990, p. 62). During flow there is a loss of awareness of body experiences, such as hunger or fatigue (Nakamura & Csíkszentmihályi, 2005). Furthermore, the sense of time is perceived as distorted (it often seems to have gone by more quickly) and the activity or task is seen as extremely rewarding.

There is limited research on how a flow state is achieved by autistic individuals. An interesting hypothesis was proposed by Raoufi (2018) in his master's thesis, in which he outlined that special interests in individuals with autism could lend themselves to an experience and sense of flow. Stallings (2019) frequently utilized her autistic clients' special interests in video games and popular media as a metaphor to process difficult issues and to provide a means of

connection. Individuals with autism can spend many hours reading, playing video games, and focusing on their special topic without an awareness of their environment. Relabeling such a special interest as creativity and encouraging it as a possible flow-like state could change the special interest from a maladaptive behavior to a positive behavior (Raoufi, 2018; Stallings, 2019). At the moment, many children with autism and special interests fear rejection from peers and are often encouraged to hide their special interests from others by their caregivers (Winter-Messiers, 2007).

Kapitan (2013) observed behavioral changes in a group of children with autism that she associated with flow while engaging in the art process. The children seemed more at ease with each other and less isolated during “flow.” The behavior changed back to being rigid and isolated after the experience. It is therefore interesting to consider if a person with autism can learn to be in a state of flow longer and be less rigid and more cognitively flexible, as Moore (2013) discussed in his article on both mindfulness and flow. Hölzel et al. (2011) demonstrated in their study of mindfulness meditation how emotion regulation can be improved for individuals with little body awareness. I propose that emotion regulation can be improved in individuals with autism through the use of art making.

Art Therapy with Clients with Autism

Art therapy with clients with autism addresses four different areas that are important in improving life: (a) problem-solving, (b) social skills, (c) language, and (d) sensory experiences. Often, more than one of these areas is targeted by a specific art directive. An example from my private practice is having a teenager with autism create a box for her repetitive and worrying thoughts. The box and the paper strips that she wrote her feelings on and filled the box with helped her increase her problem-solving skills and to articulate at the same time her problems

around the topic of worry. She decided to paint the box with acrylic paint and mainly used her hands to move the paint around the surface of the box. This provided her with a pleasurable sensory experience that she reported she was not allowed to have in her home.

There is very little research on art therapy as a whole body/mind approach with clients on the autism spectrum. One article that addressed self-expression and reclaiming the body is focused not on ASD but on physical disability; the author, Yi (2010), found beauty in herself by creating adornments to accentuate her hands and feet. She described that she became more resolved to identify with and be empowered by her body and also challenged and engaged the viewer with photos of herself wearing the adornments on her body so that the viewer became a witness to her process. The art process gave her a voice.

Many art therapists work with clients with autism, yet art therapy has not been widely endorsed as a treatment option for autism and therefore access by autistic clients is still quite limited. For example, the Wisconsin Department of Health Services Autism and other Developmental Disabilities Treatment Intervention Advisory Committee (2015) recently argued that there is not enough empirical evidence that art therapy is an effective treatment for children with ASD. Still more strides need to be made to have a bigger overall number of participants in studies that are not only case studies and also include a control group.

A small-scale survey by Van Lith et al. (2017) surveyed art therapists who work with clients with autism to document what art materials they use, and also the details of their specific settings. The art therapists reported that they worked with a wide variety of children with different ages and mostly in educational school settings. The primary goals for seeking art therapy were to increase social skills, followed by increasing behavior regulation and sensory integration. A similar set of goals was observed by Schweizer et al. (2017), who interviewed

eight art therapists working with clients with autism to determine their art therapy treatment focus for this population. Most of the therapists in the sample utilized art to increase clients' sensory experience with art materials, help clients learn new skills, and help clients build interpersonal relationships.

Art Therapy and Problem-Solving

Art therapy also may increase the ability of individuals with autism to solve problems visually and less concretely (Epp, 2008). In the art-making process, clients with autism have to utilize problem-solving and increase their flexibility depending on the materials that are available. Sometimes the client is unfamiliar with the given art materials or does not know how to manipulate them. The client has to often enter into new territory that is unfamiliar and possibly uncomfortable. With enough time, utilizing art therapy, the client may start to trust the art-making process and become more imaginative (Darewych et al., 2018; Schweizer et al., 2017). Autistic individuals are not always communicative and it depends on the art therapist to allow clients the space to explore, make mistakes, and exercise problem-solving skills on their own. An example is Dolphin et al.'s (2014) case of a 5-year-old boy with autism who used art materials over time to create self-regulation and containment. The child moved from using very wet mediums and fluidity to using felt pens. The indication of a changed behavior in this boy is evident both in his artwork and in the actual environment. The boy was able to use materials that showed greater control (felt pens versus sand). In therapy he was allowed to take the time he needed to move from lack of control seen by his choice of medium to a more controlled medium at his own pace.

Art Therapy and Social Skills

Art therapy is another means to help children with autism to learn and improve social skills through art activities in group settings (D'Amico & Lalonde, 2017; Martinovich, 2006). Interactive drawing tasks—in which a picture is passed around and each group member adds to the existing drawing—can help in establishing a dialogue between group members and also in learning to respect and be considerate of each other's space on the page (Gabriels & Gaffey, 2012). Art making in itself requires problem-solving and cooperating and talking to others about sharing and borrowing materials. According to D'Amico and Lalonde (2017), by engaging with each other and sharing, the six children in their study learned assertiveness and experienced an increase in self-esteem through the development of skills.

Art therapists, such as Martinovich (2006) and Martin (2009), have referenced the usefulness of art making as a versatile tool and as a nonthreatening way to interact with children with autism. Children with autism reportedly become more communicative during art making whether or not it involves the art therapist actively drawing or painting alongside the client (Evans & Dubowski, 2001). The dyadic art-making process also seems to hold the child's interest and creates easier access to forming a relationship between therapist and client than verbal therapy allows (Evans & Dubowski, 2001; Martin, 2008). The child's interest is partially held by creating an image and experiencing sensory input (Martin, 2008) and by turn-taking and actively engaging with the art therapist (Evans & Dubowski, 2001).

Dyadic art therapy allows for implicit relationships to be built that do not need to rely on language-based (explicit) relationships *per se* (Gavron & Mayseless, 2018). Implicit relationships in the dyadic art-making process are nonverbal and change is achieved through manipulating the art in the process and creating a connection. Gavron and Mayseless (2018) illustrated this

concept in their example of a mother who used her hand to paint with, much like her son did, and when the son was able to ask for something he wanted his mother to draw.

Another study that also is not autism-specific but could be easily adapted is developmental transformation art therapy (Rosen et al., 2016). Rosen et al.'s (2016) study illustrated how working jointly together with clients and taking turns can lessen fear and create greater intimacy between client and therapist. This format of art therapy is very structured in that therapist and client sit across from each other, the client starts to draw, and then both take turns drawing on the same sheet of paper. The therapist follows four techniques: mirroring back what the client drew, drawing something that enhances the client's existing picture, adding a symbol conveying an emotion that was not fully expressed in the drawing, and creating an element that interferes with the rest of the drawing (Rosen et al., 2016).

Another approach of joint drawing was observed by Martin (2008), who assessed 25 children and adolescents with autism, with her as art therapist, in a study where they drew portraits of each other simultaneously. She compared the results with a control group of 15 neurotypical children and adolescents, noting that the children with autism showed more interest and chose to extend the sessions by creating another drawing offered by the therapist. These children also more often drew on the therapist's drawing or dictated what the therapist should draw. It would seem that the participants expressed their familiarity with the therapist by drawing on her artwork or perhaps lacked an awareness of social cues to know whether this action was acceptable or not. Either way, a connection between therapist and client was formed.

Art Therapy as Language

Certain performance pressures that often are associated with verbal therapy and cognitive behavioral therapy are eliminated in art therapy. The art process allows the client to focus on

another object (art) besides the self or the therapist. Whereas words might describe how the client feels, the artwork can at times show how the person feels by using formal elements of color, shapes, and designs (Chambala, 2008). Because some children with autism struggle with language and articulating thoughts and experiences, the art allows a view into the child's perspective that might otherwise be hidden away (Bisagni, 2012; Miller et al., 2008). Through images, an autistic child or adult can express what words often cannot or where language is missing. Henley (1987) reflected that art is a visual language that "transcends spoken language" (p. 65).

Martinovich (2006) observed that clients with autism were able to expand concrete ideas through the use of "spider maps." Such a map starts with a central visual image and idea and then radiates out with tentacle-like lines to give other associations on a specific topic. Autistic clients are then able to use more flexible thinking strategies than they might otherwise have had and the images can create a new connection to these ideas (Martinovich, 2006). Henley (2000) used idioms to engage children with ASD and attention deficit hyperactivity disorder in a group setting and to increase abstract thinking abilities. The children grappled with the meaning of the idiom and created art around their associations with the term. Learning about language through the art was achieved in a playful manner, without having to bluntly point out the deficiency in the child (i.e., not understanding abstract language). As Henley (2000) described in his case study, the art also became a coping tool and stimulated feelings that these children had not expressed before but were now able to share in the group setting.

Art Therapy and Sensory Experience

Art therapy provides a multifaceted sensory experience that is not only about verbal input and output. An example was provided by Durrani (2014), who described how she engaged a

client in art therapy in order to provide a multifaceted sensory experience. She elaborated that a material like clay can be not only manipulated but also pounded or crushed to create sounds that help regulate sensory experiences or desensitize a client's aversion to noise in the environment. Through art making and experimentation with various art materials, her client was able to form a bond with the therapist and also overcome the dysregulation that otherwise can get in the way of such bonding.

Durrani (2014) actively perceived her client's cues and mirrored back his pouring of paint to acknowledge him. Such an art-making process is flexible; artwork can be made while moving around or being on the ground, depending on a client's need or disability (Durrani, 2019). Because the art offers this multisensory experience of smell, touch, and sight, a child with autism can increase and expand both an understanding of materials and processes and access to interpersonal connection. The concrete object that art making provides also may help a child with autism to think more abstractly and reflect on their own behaviors (Hinz, 2009, p. 128).

The use of various art materials in therapy can be used as a substitute sensory experience for a dysregulated person; for example, touching soft fabric rather than pulling on hair or on clothes (Elkis-Abuhoff, 2008). Elkis-Abuhoff (2008) described a client with autism who engaged in multisensory experiences with art materials, which slowly broadened her own world and opened new ways of communicating with others that she had not tried before. Kearns (2004) documented a dramatic change in behavior in a child whose negative behavior (i.e., tantrums) was reduced when check-ins including art activities that were less structured (such as finger paints) were used to check in at the start of the school day. The sensory experience of paint on the skin of a child's hands improved their ability to endure a regular school day and increased communication (Emery, 2004).

Therapeutic Doll Making

My interest in focusing specifically on therapeutic doll making stems from observing clients with and without autism as they have created their own dolls and how I have seen them interact with the dolls. I noticed that the doll especially allowed clients with autism to be more creative, spontaneous, and playful than when they engaged in other art therapy interventions that I wanted to examine further and in depth. Almost all of my clients who have made dolls have done so with a certain kind of focus and intention. Often clients with autism who previously had difficulty expressing their needs started telling me what materials they wanted—whether that was fabric, yarn, or paint—to create and decorate their doll.

My clinical observation is that humans relate to a body form more than to other art forms due to the resemblance to our own bodies and because of how important dolls have been for our ancestors in rituals, play, teaching social skills, and learning about societal roles. Dolls are universal, have existed in many different cultures for centuries, and are usually made from the materials of that culture (Markel, 2000). Some dolls are made out of corn husks, apples, or palm leaves and reflect the culture and customs that those who make them come from.

Even today, dolls are used in various settings with clients who have dementia (Elliot & Kelley, 2016; Shin, 2015) and in hospital settings to help describe procedures for children undergoing medical treatment (Gaynard et al., 1991). For both settings the importance that engagement with dolls furthers is in creating an attachment to the doll (Mitchell & O'Donnell, 2013). At the beginning of this chapter, I discussed attachment patterns in infants. In dementia care, attachment is important in another way. People with dementia often become fixated on their own parents or call out for a parent that is deceased (Osborne et al., 2010). They are looking for an attachment figure during this distressing time to provide a secure and safe attachment.

According to Mitchell and O'Donnell (2013), a doll can become a transitional object that can become emotionally charged with or represent an actual parent, which provides comfort or is soothing to the client (Mitchell, 2014). A few studies with people with dementia (Mitchell, 2014; Mitchell & O'Donnell, 2013; Shin, 2015) have documented a reduction in aggressive outbursts and improvements in mood when dolls were provided as comforting objects. Similar behavior changes were reported by Birnbaum et al. (2015) in an individual case study with a severely impaired psychiatric adult. This individual was encouraged to play with a doll and a dollhouse as a means to help reduce erratic behaviors that often turned to violent outbursts. After two weeks of interacting with the dolls and dollhouse, changes were observed after 2 weeks, from very chaotic to more organized and communicative play (Birnbaum et al., 2015).

The client who is encouraged to play in the therapeutic setting with the dolls might not have been able to play much as a child. According to Brown (1998), children who are deprived of play when young may become depressed, envious, and overcontrolling as adults. He observed the importance of play both for overall development and to practice mastery of skills through games and learning to win and lose (Brown, 1998). Individuals with autism who have difficulty with imaginative or unstructured play may have an insecure attachment to their caregiver or exhibit some aggressive behaviors as well. Some have theorized that this is due in part to a less empathetic connection to their caregivers and diminished mirror neurons in the brain, as discussed earlier (Bons et al., 2013; Gallese, 2009), although this claim is disputed. In any event, it is reasonable to consider that doll making may provide a soothing tool for autistic individuals to engage with, as well as a new form of play-like activity.

Projection

As discussed above, the tangible object, of a doll, created in the therapy setting and with the therapist present, may help a client form a more secure attachment to another person and to the object created (Burns & O'Shea, 2017). Dolls and especially doll making also offer a soothing experience. Additionally, as an object of projection a doll may potentially create a parallel process of one's own personal life as reflected in the human representation of the doll. An example of this process of projection can be seen in Burns and O'Shea's (2017) case study of an adult client with a disability who enjoyed playing with a dollhouse and dolls, and then created her own doll babies out of clay. After developing a pattern of playing with the dolls, she gradually changed her interactions with them as well as her attachment style. At first, she pretended to ignore the clay babies' crying and did not immediately tend to them, but after a while she was able to tend to the babies, picking them up, providing nurturance, and holding them. The doll babies unconsciously brought out the client's attachment style and made it available to the client in changing her interaction with the doll babies in the here and now (Burns & O'Shea, 2017).

Projection can be used to process grief of a loved one. Both Feen-Calligan et al. (2009) and So and Leung (2013) observed clients as they projected feelings onto a doll-like form that they had made and how they talked to it and found comfort in it. Clients experienced relief in being able to dialogue with a doll that represented a deceased loved one and were able to continue their life and move forward after receiving the comfort from the doll experience (So & Leung, 2013; Onofrio, 2018; Topp, 2005). The doll acted as a bridge between the deceased person and the image of that person.

Topp (2005) also observed how projection of a feeling onto a doll, in her case anger expressed by a child toward her brother, helped the child process these feelings and resolve

them. The child threw the head of the doll against the wall and poked it with a pen. She recognized the doll as her brother and at times called the doll by her brother's name. In later sessions, the child was able to play a game of catch without using the doll's head. This shift in behavior suggests that she had processed and resolved her negative feelings toward her brother after being allowed by the therapist to act them out onto her doll rather than her actual brother.

Many if not most art objects that are created by a client in art therapy become a mirror of the client's internal feelings (Hilbuch et al., 2016). Avrahami (2005) described the importance of the art product and its role: "With the help of the image, the patient makes a statement about the self—but also makes a statement that is aimed at the therapist" (p. 12). The projected emotions are not always negative; they can also become more positive, such as in the development of multiple dolls when working through complex trauma (Stace, 2014). Stace (2014) observed through a case study of a client with a severe trauma history how the client gained insight from each self-portrait doll that she created and was able to create change within herself.

Externalization

A similar phenomenon of projection through the creation of a human form was exhibited by a client with cancer and portraiture drawings she codesigned together with her therapist (Carr & Hancock, 2017). Externalizing her feelings onto the portraits helped her to separate her own self from the problem. This process is called externalization (White & Epston, 1990). Carr and Hancock (2017) described externalization as follows: "Through the revisioning process and the manifestation of aspects of self-identity within externalized objects, hidden pain and suffering are brought into being in the present, so that they can be held, contained, moved, worked on and reflected upon" (p. 18).

Vollmann (1997) observed the experience of an adolescent boy who projected feelings about his own identity conflict onto his doll. The doll allowed the client to explore his own identity issues by externalizing his feelings. Oftentimes it is difficult to speak about internal processes and complex feelings to others, especially for individuals with autism (Malhorta, 2019). For most clients (regardless of diagnosis), it is easier to speak through the doll, especially about negative feelings that are often considered unacceptable or inappropriate to explore or discuss with others (Gerity, 1999; Steinhardt, 1994; Welland, 2011).

Examples of the experiences of clients engaged in doll making and therapists serving as observers or joint participants show both the versatility of doll making and the strong feelings (anger, sadness, etc.) that can be unleashed by therapeutic doll making. Hastings (2003) confided how she created soft sculptures, dolls, and masks to deal with domestic violence and a history of suicide in her family. She was able to project rage and hurt onto her three-dimensional artwork in a safe space without actually hurting anyone (Hastings, 2003).

Dolls as Transitional Objects

According to Winnicott (1971), an infant realizes early on that they are a separate person from their caregiver and attaches to an alternative object that can give comfort and replace the caregiver when the caregiver is not there. This object is called a *transitional object* (Winnicott, 1971). Dolls, blankets, and teddy bears are common transitional objects for infants. This phenomenon may explain why in doll making the importance of keeping the object safe comes to the forefront along with its implications of the client's trust in the therapist to do so (Gerity, 1999; Topp, 2005). Therefore, I have wondered whether it would be more difficult to leave a human-shaped object (such as a doll or figurative sculpture) behind after a therapy session as compared to a drawing or painting. I believe that the creation of a human object is connected to

some sense of nurturing and empathy in the client. In the weekly group setting that I facilitated for my research study, all four participants wanted to take their doll home. I have only one female client who decided not to take her dolls home and became embarrassed by her finished product. I can only speculate that she feared some sort of rejection from her peers in her residential center, specifically young adults with autism.

The Social Aspect of Doll Making

Another theme that has been discussed in the literature of doll making in art therapy is the social aspect of the process of creating a doll (Feen-Calligan et al., 2009; Light, 1996; Welland, 2011; Wicks & Rippin, 2010). Participants in doll-making workshops experienced a deeper connection by sharing and having witnessed each other's healing process and by receiving feedback from others (Feen-Calligan et al., 2009; Light, 1996; Welland, 2011). Crafts are used in communities to create change and to bring awareness to issues that governments and politicians often neglect (Goggin, 2014). Through the making of hand crafts, such as embroidery, quilting, or knitting, a marginalized group can help raise awareness of social issues (Leone, 2018). An example of this activism and its empowering qualities is Elia Andrade Olea's group that embroiders handkerchiefs for every victim who has died from drug war violence (Goggin, 2014). Raising socio-political awareness was also the purpose of the Babushka Project in which giant, larger-than-life-size Russian nesting dolls were created near a housing project for low-income people in Melbourne, Australia, to bring attention to the lack of safety for women in the neighborhood and other marginalized people that lived in that community (Gray, 2012). The dolls were designed by the community with an art therapist to communicate soothing and nurturing feelings in an otherwise uninviting space and environment (Gray, 2012).

The Sensory Experience of Doll Making

Many people with autism struggle with regulating their emotions, mainly because of unawareness and too much sensory input. Doll making is a quiet activity that requires close attention to detail and getting the body and mind involved (by picking out fabric, sewing, gluing, and problem solving, for example). Although I found no studies on the use of textile arts with autistic individuals, many textile artists (Burt & Atkinson, 2011; Garlock 2016; Homer, 2015; Reynolds, 2000) have noted therapeutic aspects of textile crafting, such as well-being and relaxation, that may be due to the repetitive nature and the predictable process of such materials. Olivetti (2017) reported the experience of relief from stress that a textile artist described while engaging in weaving, writing that the methodical process and complicated pattern created a sense of needed order in dealing with a terminally ill husband. Futterman-Collier (2011) found similar outcomes in her study of women who engage in textile making. I have noticed that such repetitive and structured processes are sought by many clients with autism, who find them soothing and calming. I hypothesized that a similar experience can be provided in doll making with autistic clients.

The case studies by Topp (2005) illustrated how she would point out technical aspects of making a doll (trying to sew not too close to the edge, cutting out the fabric, etc.) but allowed the client to ultimately make decisions. Having the space to make mistakes and experiencing how much thread to use or seeing what happens when the fabric is not sewn correctly is empowering and encouraging and increases a sense of self-control. This back-and-forth between giving control to the client and providing structure is recalled in many case studies that involve doll making with children and also individuals with chronic mental illness (Gerity, 1999; Koppelman, 1984).

Integration Through Doll Making

Creating and playing with dolls allows clients to integrate parts of the body to a full-body representation. Gerity (1999) noticed that many of her clients with an abuse and trauma history could repair parts of themselves, integrate negative aspects, and create a cohesive sense of body through puppet making. Unspeakable words came out through the enacted puppet play when clients felt safe. The puppets became an extension of the client and the client also became the one in control of how to enact and play out the scenes, whereas often in the client's life there had been no control over other people's behaviors in compromised situations (Gerity, 1999, p. 85). Even though clients with trauma are different from clients with autism, both struggle to acknowledge and take care of their own bodies, for very different reasons. For my research study, I wondered if autistic clients would also experience the sense of empowerment through doll making that the group participants with dissociate disorder experienced in a day treatment (Gerity, 1999) or whether they would want to give their doll a voice and speak through the doll's image. I hypothesized that the integration of fragmented body parts that is present in dissociative clients and the unawareness of body parts in clients with autism is similar and that a connectedness can be achieved through therapeutic doll making.

Conclusion

The previously discussed examples of therapeutic doll making and puppetry with a wide variety of clients offer insight into how doll making can help to integrate body parts into a cohesive sense of self and also allow clients to find their own voice, as well as become empowered to ask for what they need. All of these aspects are important for individuals with autism to thrive and to feel understood. Moreover, doll making might reduce the isolation and marginalization that is so common for this population, partly due to difficulties in understanding social cues. Most of the articles on treatment methods commented on the overall lack of studies

in the field of ASD, due to this multilayered diagnosis that includes aspects of neuroscience, behaviors, and sensory struggles. Although there are many more treatment options today than even 10 years ago, still much more research on clients with autism is necessary. Studies that are being conducted are still small in size and often focus primarily on young children. Mindfulness and art therapy, especially with children, is slowly moving into the forefront and addressing multiple aspects of the diagnosis such as sensory integration, relaxation, a sense of mastery with art materials, and an increase in self-esteem. Recent focus is less on stigmatizing clients with autism, mainly due to the neurodiversity movement, and evolving more in integrating special interests into therapy and strengthening autistic individuals' ability to practice problem-solving independently and not only by imitation and example, as is often the case when therapy with autistic clients includes CBT. Overall CBT has shown some improvements with individuals with autism, especially when visual aids are used and parents become involved and an integral part in reinforcing new learned behaviors.

CHAPTER 3: METHODOLOGY

My study was practice-led in that it was conducted from my clinical experience and grounded in an examination of an experience that may contribute to further art therapy treatment for clients with autism. I sought to observe, document, and phenomenologically explore what occurs for clients when they engage in therapeutic doll making. I utilized a qualitative research design that incorporated phenomenological descriptions, thematic analysis, and art-based methods. Phenomenological research addresses questions having to do with how people experience a phenomenon and create meaning from it (van Manen, 1990). Because it is concerned with generating plausible insights from direct contact with the world, phenomenological research aligns well with art therapy practice and my study focus. Doll making is an art practice and therefore served my study as a primary research method by involving sensory, emotional, and somatic responses that carry meaning not yet available for verbalization or measurement (Eisner, 2003). Unlike scientific research, art-based research is concerned with illuminating what is unique to the present moment while simultaneously conveying insights that extend beyond the limits of the situation (Eisner, 2003).

My research question was: What is the experience of therapeutic doll making, based on observed behaviors and verbalization, for the client and what meaning does the client assign to it?

Participants

Selection and Recruitment

Selection criteria for participants in my study were that they were (a) adults between the ages of 19 and 40 with an autism spectrum disorder diagnosis, with (b) Level I or high-functioning autism (meaning they did not require conservatorship and were living independently

on their own), who (c) were current clients in my licensed private practice who have engaged in art therapy for at least 3 months. All participants completed informed consent forms (see Appendix).

Prior to being selected for the study, I considered the concerns and treatment goals of each participant, which ensured that their ongoing therapeutic process would not in any way be disrupted. Participation was voluntary and at any time participants could withdraw from the study with no repercussions. Every aspect of the proposed study was consistent with ongoing client activity in a normal art therapy context and within regulatory laws and standards of care. The study design was reviewed and approved by the Institutional Review Board of Mount Mary University in accordance with ethical standards of human subjects research.

Participant Demographics

A total of four participants participated in the study: two women and two men. The following demographics and background information of the participants comes from my existing case notes. It is important to note that all four participants present very differently in the therapy sessions from one another. All four have a diagnosis of ASD and a co-occurring disorder, which might distinguish each participant further from one another. A brief introduction of each of the four participants follows. All participant names used within this dissertation are pseudonyms.

Alice

The oldest participant in the study was Alice, who is in her late 30s and has a diagnosis of autism spectrum disorder and attention deficit disorder. Alice was only diagnosed 2 years ago. She often applies deep pressure to her arms and legs to receive sensory input and at times rocks back and forth. She is an artist and mostly works with soft pastels and other drawing materials. She has described often being nervous when engaging with others and having difficulty finding

the correct words to illustrate her point. She was the only participant who is married. Alice was also the only participant who had shared having a history of trauma, including physical and emotional abuse by her stepmother.

Joe

Joe is in his late teens and has autism spectrum disorder and atypical depressive disorder that includes self-harming tendencies. Joe has difficulties staying motivated and engaged in most activities and describes himself as being awkward around other young adults his age. Joe is also estranged from his father and has a difficult relationship with his mother, who can be supportive and also very judgmental toward him. I have seen various texts that Joe has shared with me that his father sent to him and learned that his father stopped all contact several months before the study began. Joe's mother has occasionally joined us in art therapy sessions but has used words like "disgust" and "laziness" to describe her son while he was present. His mother also tries to reach out to me when she becomes worried and concerned about Joe.

Annie

Annie is in her early 20s and has autism spectrum disorder and binge eating disorder. Annie is easily overwhelmed by physical activities and struggles with balance. She has a lot of sensory issues and has difficulty socializing. Her preferred art materials are Perler beads and sewing blankets and pillows.

Jacob

Jacob is in his mid 20s and has autism spectrum disorder and major depressive disorder. He is a digital and fine artist and mostly isolates himself in his home. He has difficulties relating and engaging with others. Jacob is estranged from his father and has a detached relationship with his mother. He told me that she disrupts his life from time to time and makes changes to his

routine by wanting to uproot him or change his services without any notice or prior planning. His mother also has reached out to me with occasional requests to find him new housing or jobs in another country that appear to be unrelated to Jacob's interests or abilities.

Procedures

The procedures for the research study aimed to identify and bring forward the meaning elicited in therapeutic doll making for adults with autism. I also wanted to further research the lived experience of therapeutic doll making and hear my clients' own stories about it and their meaning making, combined with my observations of this experience and in relation to the finished doll. To these ends, the four participants in this study were invited to create a doll during their regular art therapy treatment, using a white muslin doll form and decorating and embellishing it with watercolor paint, fabric, yarn, and/or beads. The doll-making sessions lasted from 1 to 3 weeks depending on the participant's own sense of when they were finished with the doll. Only one participant, Jacob, spent 5 weeks on his doll and did not finish it. After the final session I asked each participant to tell a story about or describe their own individual doll, which I wrote down in the participant's exact words and then read back to them for accuracy and to ask if the client had any other associations about their own doll.

Data Collection

Employing a phenomenological mindset to gather data from in-depth, first person accounts of the experience of therapeutic doll making (Kapitan, 2018), I utilized four sources: (a) my observation of art-making sessions in which participants created a doll from a preexisting template, (b) verbatim participant stories in which participants described their responses to the doll they created, (c) my reflection on the process and content of the doll, and (d) observed impacts of the process on participants' social skills and communications over the course of 3

weeks. These multiple data sources triangulated the phenomenon to increase contextual validity of the results. The data were documented in case notes and photos of the finished dolls, with any identifying information removed, and stored in a locked file cabinet in the participant's individual file. The dolls were kept safe in a closed cupboard.

Data Analysis

For data analysis I initially followed the phenomenological method outlined by Giorgi (2009), which begins with bracketing off one's own biases towards the phenomenon of study. Bracketing, according to Kapitan (2018), is a process of temporarily suspending judgement in order to open a space within oneself so that the object of study can be clearly or freshly seen. Biases and assumptions that I allowed to surface and then put aside were:

- I believed that the individual with autism would connect to the doll.
- I thought that creating a doll might create a connection to me, the therapist, by working closer together and helping cut and glue pieces of fabric onto the doll.
- I was aware of my extensive knowledge of all four of my participants' backgrounds and histories.

A phenomenon is the essence of something (Giorgio, 2009; Kapitan 2018); "an event or lived-through experience as it shows itself or as it gives itself when it makes an appearance in our awareness" (Van Manen, 2014, p. 65). Therefore, in order to keep my mind free of my assumptions and obtain a level of awareness beyond ordinary thought (Kapitan, 2018), I tried to think of the doll as nothing more than a three-dimensional form that has the shape of a body. Because the phenomenological mindset requires the researcher to suspend all judgment, I also tried not to lead the participants in any way when it came time to tell the story of the doll. Giving

each participant as many different material options as possible, without it becoming overwhelming, was also meant to not limit the selection and outcome of the finished doll figure.

A shift in my data analysis plan occurred after each participant had described their own doll to me. I realized that the collected data in the form of the participants' statements about their dolls did not give me enough content or information that could be organized or clustered into meaning units as an important next step in phenomenological reduction (Giorgi, 2009). I therefore decided to analyze what data I had with the qualitative process known as thematic analysis (Braun & Clarke, 2006). Rather than search for phenomenological essences, thematic analysis is based on pattern recognition, with awareness that meaning cannot be understood except in relation to the whole context (Saldaña, 2016). I familiarized myself through open-minded reading (Sundler et al., 2018) with the individual doll stories and then searched for meanings and themes from the phrases given to me in the stories. I then organized the meanings into categorical patterns and themes emerged. After extracting from all of the stories meanings and themes, I looked for one main overarching theme and other evolving subthemes.

Finally, in order to gain additional insight into the context surrounding the doll making and its possible impact on each participant, I decided to use an art-based research process of data analysis (Sullivan, 2005) that would surface tacit information from observed and felt experience of facilitating the doll making experience. I created two dolls of my own in response to the dolls created by my participants. I deliberately set a limit for myself by not focusing on the doll's face, which mirrored what I had noticed participants do when making their dolls. I immersed myself in this process of embodied understanding of what the participants might have experienced in their own creative process of meaning making.

Statement of Credibility

The validity of the research study and its thematic analysis of phenomenological and art-based data was strengthened with member checking. I asked an independent reviewer, one of my committee members, to review my findings with me through in-depth questioning that surfaced reflection and consistency in how I was reading, analyzing, and presenting the results to another. I also had the meaning statements checked and confirmed by the participants themselves. Some examples of questions to assess the validity of the research study are posed by Creswell (1998):

- Do the results convey an accurate portrait of the common features and structural connections found in the data?
- Did the researcher influence the contents of the participants' descriptions in any way?
- Is it possible to go from the final description back to the transcriptions and account for the specific connections made with the original descriptions of the experience?

My answer to all three questions is “yes.” The final report of my results goes back to the participants' own phrases and words and also to their own comments made after the doll making experience. The finished dolls also function as data. I did not in any way influence the participants' descriptions of their doll story. When I speculated or assumed any specific meaning about the words and sentences used by the participants, I would clarify this with them. I also examined how other alternative meanings could have been derived from the data and why I might have decided to not further explore those meanings. Furthermore, the additional knowledge that I have about each participant's history strengthened the meaning of the subthemes as well as my case notes from the art therapy sessions in which the dolls were made.

I utilized triangulation to strengthen validity and rigor by having my research advisor review with me the data from the thematic analysis to avoid possible biases and to ensure clarity of the results. She and I compared notes and discussed possible themes deducted from

participants' own stories and from studying the dolls. I also triangulated meaning making by examining not only each participant's own report but also my own observations of their engagement in the experience and the finished art product.

Summary

In this chapter I discussed the qualitative methodology by which I designed the study. I initially utilized a phenomenological method of bracketing when gathering the data collection beginning analysis. The shift to thematic analysis allowed me to bring in contextual observations and examine how participants with autism described their own doll through the story they told, followed by deducing meaning from that story. As described in the next chapter, I found that the meaning that emerged from the doll making experience was often implicit in the stories told by the participants. Because their stories were only briefly and concretely told, I tried to extract deeper meaning through a process of pattern recognition that coded and assigned themes.

Finally, I went back to the participants to check the validity of my results. I also was aware that my own voice would come through into the meaning making, which raised another validity concern: How confidently could I assert that the results of the data analysis accurately conveyed the participants' experience? It is entirely possible that the participants might have been reluctant to agree or disagree with my findings, due to my position as their therapist. I kept in mind the power differential between us as it reflected in my identity as a White, highly-educated female in the expert position as a therapist and researcher. To address this concern, I sensitized myself to these differences with that hope that, rather than take the voice from the participants, I became an ally and that their story and doll stands out in its own right. The following chapter illustrates the results of my study and future implications for the field.

CHAPTER 4: RESULTS

The results found in my data analysis relate back to my original research question: What is the experience of therapeutic doll making, based on observed behaviors and verbalization, for the client and what meaning does the client assign to it? In this chapter I present the global themes that I deduced from both the stories about the dolls made by four adults with autism and my own observations of this experience. In order to place the experience of therapeutic doll making within qualitative thematic analysis, I examined the individual themes derived from the participants doll stories, as well as my own observation in the sessions and my doll making created in response. I found one overarching main theme and three distinct subthemes. The overarching theme was that the dolls produced a character fantasy formation for the participants; the subthemes had to do with communication, connection, and transformation. These subthemes appeared in this specific order and in common with each participant and, therefore, suggest an order of possible importance in each participant's own life.

In the pages that follow I will provide an image of each participant's doll, the participant's own doll story, and my observation of the session in which the doll was created. I will then illustrate the findings from each doll by extracting meaning from the participants doll stories by looking at their phrases and categorize the phrases into broader themes that I found in all of the four doll stories. Themes that are only apparent in one of the participant's doll story will only be briefly mentioned as they will not add to the collective experience of the four participants. The dolls are shown in the order that each participant created them. The first doll was created by Alice.

Alice

Alice's Doll Story

Alice told me: *"It is a tribal doll.*

It is a tribal girl doing a dance.

The dance of growing self-esteem.

The owl is mysterious and able to see everything and be silent.

The solar plexus is also part of growing self-esteem.

The blue decoration is for communication.

The colors relate to the chakras.

I chose a seahorse on the hand, because you are helping me and you like seahorses.

The face is not a mask.

The butterflies are for renewal.

It is also a symbol for my mother.

When she passed away a butterfly landed on my shoulder."

Observations from Alice's Doll-Making Sessions

Alice struggled to start and just looked at the blank, featureless doll form. She verbalized that this would be difficult. I gave her the option to paint the doll or use fabric to make clothing. She asked me for watercolors and then chose blue and green tones, painting the whole doll (Figure 3). As she painted, she noted the experience of painting on a three-dimensional body form was a new process for her. She then asked for different colored yarn and wanted to make the doll's hair with it. She utilized problem-solving by looking at different yarns, holding each up to the doll's head for comparison, and changing which yarn to use multiple times. Alice glued the purple yarn onto the head and decided to make a dress out of tie-dyed fabric. I observed that

she became more comfortable after her initial reluctance or difficulty in getting started. Since this session, she has told me that it is often challenging to start an art piece on a white background.

Figure 1

Tribal Doll by Alice



In the next session Alice was eager to start and continue making her doll. She told me that she felt excited about her doll and “wanted to see it again.” She decided that she did not like the yarn hair and carefully removed it. She took her time looking through my fabric basket and included different colored ribbon in the yarn. She also changed her mind about the tie-dyed dress and added sequined fabric over the doll’s face. She shared with me that the doll’s hair seemed important to her. I watched her and noted how intently she worked. The sequined fabric over the

head reminds me of fish scales and also the sequins shine back and look reflective, much like a mirror.

In the third session of doll making, Alice removed one of the stones shaped like a rose that she had glued on the doll's hand and changed it to a flat blue circular bead. She also added gold sequins on the doll's ankles and a butterfly on each upper leg. She told me about her mother, whom she had lost at the age of 8. She mentioned her mother's problem with alcohol and how she had tried to keep her mother from going to the liquor store. Then she shared the memory of the butterfly that had landed on her shoulder when her mother passed away which she included in her doll story. It was rare that Alice told stories of her mother. However, she often talked about her relationship to her stepmother which was very abusive and chaotic. Her stepmother physically and mentally abused Alice for many years.

When Alice was ready to tell me her story about the doll, she moved the doll back and forth as if it was dancing. Her demeanor became more animated and playful. She was excited to take her doll home.

I extracted from Alice's doll story meaningful phrases by reading her story multiple times to familiarize myself with it and to understand how repeated and descriptive words related to each other, which created a pattern that then became a theme. I found that Alice's themes are mainly about transformation, body, connection, and communication. What stood out right away is that she named the doll as a "tribal doll." Alice states this name twice in her doll story. She says the doll is a "tribal doll" and also a "tribal girl doing a dance." These repetitive words evoked for me the meaning of community. A tribe is its own community. Alice placed her doll in this specific community. This community, a tribal community, is not a group that she has ever

discussed before. I therefore assume that her doll is a character seemingly different from the characteristics of Alice.

Next, from the phrase “a tribal girl doing a dance,” she then names it “the dance of growing self-esteem,” which seems to go back to the idea of a tribal community and its ritualistic or ceremonial dance. If this dance increases self-esteem, I think that in that instant something is being changed or transformed. I attribute this changing or transformative quality also to her words “the solar plexus is also part of growing self-esteem.” Alice is referring to the chakras in the body that help the flow of energy through it. If the solar plexus is seen as helping to increase self-esteem, it refers again to a transformative process. Alice also transformed her doll throughout the doll making process. She changed the doll’s hair, decided to paint the body instead of making doll’s clothes, and transformed the image of the doll at least once.

A more implicit theme is in reference to the body by the way that Alice had the doll perform a dance by moving it back and forth, stating the “tribal doll [is] doing a dance.” Another relation to the body comes from the words “solar plexus and chakras.” The solar plexus is in the stomach and the middle of the body. Alice’s connection to the body can also be understood from the context of having been a massage therapist for a few years and how she enjoyed the work of using deep pressure on the skin of others. She still uses such pressure on herself to self-soothe.

In the next part of her story I noticed a shift: Alice moved from the theme of transformation and body to that of connection. She chose to include an image of an animal that is dear to me and to make it part of her doll when she said “I chose a seahorse on the hand, because you are helping me and you like seahorses.” The connection to her mother is also represented by an animal, a butterfly. Alice stated in her story, “The butterflies are for renewal. It is also a symbol for my mother.”

The last theme that emerges from the story is communication. Even though communication was only from an observation of seeing Alice advocate for what she needed in terms of materials, it is also represented by her wanting to connect and possibly communicate to me her therapist and to her late mother, perhaps on a spiritual level. The meaning of communication seems to be on multiple levels for Alice: with her own body movements, her communications with me, and the representation of the image of the butterfly standing as a symbol for her deceased mother.

Joe

Joe's Doll Story

Joe told me: *"He is a Swedish Viking.*

He has no money and is a nice person at heart.

He doesn't want to go to battle.

He wants to become a politician."

Observations from Joe's Doll-Making Session

Joe only spent one session creating his doll (Figure 2). He right away picked up the doll form and asked himself: "What do I want to make?" He stated he wanted to make a warrior and settled for a Viking figure. He looked through all of the fabric and decided on a leather piece. As he wrapped it around the figure, I told him it would be difficult to glue or sew leather to the form because of its thickness. He decided to try sewing and I helped hold the fabric in place. He did not like the look of it and decided to use wire instead of string. He then discussed what else the doll would need and quickly found fabrics and cut and glued them.

Joe seemed very intentional and his speed was faster than usual in our art therapy work together. He often easily gets distracted by his phone, but this time he stayed engrossed in the

task at hand. The face was the last thing he added to the figure. He chose a black marker and quickly drew the face and hair on his doll. When asked, he did not know how to start his story at first. What stood out, in comparison with what I have observed from him in sessions before, was his speed and intensity with this project.

Figure 2

Joe's Swedish Viking Doll



Much like Alice's tribal doll, the Swedish Viking is a figure from a different time and heritage than Joe. A Viking is a powerful historical figure and the doll does look powerful in that it is wearing some kind of armor and holding a shield and sword (the stick in the left hand). The doll looks strong with raised shoulder. The sword pointed upward, poised for action, but the smile on the doll's face does not give the impression of a fierce fighter. Joe said, "He has no money and is a nice person at heart" and "He doesn't want to go to battle." These descriptions

further substantiate the idea that for Joe the theme is not about power, despite that it might seem to be so when first reading his story. I see a thematic shift when he says, “He wants to become a politician.” The Swedish Viking appears to be not happy with his role as a Viking. The doll’s true calling seems to be the that of being a politician. Thus, I see the theme of transformation emerging as the doll’s role is shifted from Viking to that of politician. While I assume that a Viking would use force, a politician would need to communicate more with people. I asked Joe after the doll making story what he thought about his doll and what it represented. Joe said, “I had no thought about it while I was making it.” My next question was whether communication played a role for the character. Joe stated, “I don’t think that Vikings have to communicate as much as politicians do, however.” Joe’s answer strikes me as interesting in the sense that the Viking might want to be a politician (e.g., a person of persuasion or influence) and therefore chooses communication over force. Joe has pointed out on numerous occasions in sessions that he is “not good at communication,” however. He has a history of verbal fights with his mother and was in the past hospitalized for suicidal ideation and planning. In the past, Joe has brought his mother along to therapy sessions to have her explain his thought process and mood shifts to me.

Annie

Annie’s Doll Story

Annie told me: “*A general character wearing a hat.*

She is a skater punk with wild hair.

She works at a restaurant. “

Observations from Annie’s Doll-Making Session

Annie also used only one session to start and finish her doll (Figure 3). She right away asked for different yarn and materials to work on the doll's hair. She spent about 30 minutes creating the right kind of hair and hat that would cover the head. The hat was created from a sock that she folded slightly over the top of the doll's head. She used a pair of scissors to trim and shape the hair and then when she needed to glue the pink hair on, she felt that it was not right and started over, using polyester filling. She was very careful in placing the glue and hat on the doll. To create the dress, she used another sock and cut off the bottom to create a tube-like dress. The face was drawn rather quickly with a Sharpie marker.

Figure 3

Annie's Skater Punk Doll



During her process of creating the doll Annie was focused and did not look at her phone, which is what she does in a usual, non-doll making session. Therefore, it was surprising that she

stayed so focused on her project and did not give up. She did not know how to start her story and took a while to come up with something to say.

Finally, Annie started her doll story by stating, “A general character wearing a hat.” This statement seems to illustrate a distance between the maker of the doll, Annie, and the doll itself. When she used the word “general character” I thought that she did not want to give the doll a specific gender. Yet, in the next line she says “She is a skater punk with wild hair.” By naming her doll a “skater punk,” Annie places her doll into a specific genre, that of a skater subculture. Annie herself seems very opposite of what the image of her doll and the image of a skater punk would represent. Annie struggles with balance due to mild Cerebral Palsy and feels very uncomfortable when moving her body around. When I asked her after the doll-making session about her character she told me “The doll is not me.” I’m wondering: if the doll is not herself or a fantasy of herself, then who is this doll? I felt her closing off after I asked for more meaning and I hesitated to ask for more information about her doll character. I attributed the theme of wanting to be a rebel with Annie’s statement of “skater punk” and “wild hair.”

Another shift comes with the following line: “She works at a restaurant.” Annie’s statement is very opposite of what she has done or might ever do, due to her physical limitations. I asked myself if I think that a skater punk would want to work at a restaurant and what this connection or meaning between the skater punk and working at a restaurant might be. I asked Annie about this specific phrase. She stated “They [the waitresses] work very hard and have to do so much.” When she used those words, I almost heard some admiration in them. Her whole paragraph, in fact, could be seen as one of admiration or longing for something she does not have. This sense of admiration could be for the agility she doesn’t have, to be daring like a skater

punk, and to have a job. Annie has never had a job and only had a few short-term internships at a retail store and as a receptionist.

The theme of transformation was evident in how many times she changed and re-adjusted her doll, especially the doll's hair and how the doll transforms from a skater punk to a waitress "works at a restaurant." Annie also transformed how she thought about the doll from when she first described it to me as "general character" and in the end giving her doll specific roles "skater punk," and "waitress."

Jacob

Jacob's Doll Story

Jacob told me: *"It is a shamanistic/totem spirit doll.*

It is based on animal attributes.

The theme has a ritualistic feel to it.

The antennas and the mask keep it mysterious and keep a degree of separation from being a human figure."

Observations from Jacob's Doll-Making Sessions

Jacob decided to first paint an image of a doll on canvas and then create it exactly from his painting as a three-dimensional doll (Figure 4). He explained that he liked the challenge of first painting and then making the doll. When he first started working on the actual three-dimensional muslin doll he had no energy and stated, "I'm tired." He then asked for fabric and sewed a big piece to another piece. He also asked for air-dry clay and created a mask to fit over the doll's face. Although he stated he was tired, throughout the rest of the session Jacob was very active.

Figure 4

Jacob's Shaman Doll

In the next session, Jacob looked at the mask and sanded it briefly and placed gold dust lightly all over it. Then he asked to work on a new painting. He was more talkative than usual. In the following (third) session Jacob decided to paint on white fabric with oil paint to create a shawl or robe for the doll that looked as close as possible to the shawl in his painting of the doll (Figure 5). He used a few different techniques and commented on the experimental process. He also glued the mask onto the doll's head.

Figure 5*Shaman Painting by Jacob*



In the fourth session Jacob did not want to work on the doll, but worked on his paintings instead. He arrived very early (he was usually 15 minutes late to sessions) and said that he had decided to work for an art gallery. He wanted help from me to name a few galleries in town and also asked to look at all of his work. He stated that he would like to use clay for the body of the doll and would bring the kind of clay that he likes next time. Overall, he was more open and talked about family members whom he had mentioned only briefly in the last 2 years. He made a connection between his younger brother traveling to Germany and me being from Germany. He seemed very much at ease in the session.

The next week Jacob shared that he had followed up with a gallery, but that it was closed and he would be going back. He also added to the doll's antennas and a robe to his doll and then shared his story about it. When something did not work how he had envisioned it, he tried different ways and even decided to go back to a previously abandoned doll and partially reworked that one.

When I read Jacob's beginning sentence about his doll, "It is a shamanistic/totem spirit doll," it right away reminds me of a character similar to that of Alice's tribal girl. I wondered how Jacob created this character and what reference to the doll he had. Therefore, I asked him if he knew much about Native American art or Kachina dolls. He replied that he did not know anything about them. Even his reference in the next sentence "It is based on animal attributes" evokes for me images of Native American masks or ritualistic dances. Jacob did not specify what animal attributes he is referring to. By looking at the antennas on the doll's head, I'm assuming the animal characteristics to be placed in the insect world, which could be possibly substantiated by the mask. The mask is elongated much like a bug's face or could be seen as closely related to a deer or other mammal skull, due to its greyish/whitish color and hollow eye sockets. In symbolism the deer has been associated with gentleness and mildness (Biedermann, 1992, p. 92), which is a trait apparent in how Jacob presents. He is mostly mild mannered and has not shown any feelings of anger or annoyance in therapy sessions.

From the beginning Jacob's theme was about transformation. Creating a painting and then a doll from that painting is a duplicative process and also involves the transformation of seeing a two-dimensional painting become a three-dimensional character. By engaging in this process of having both a painting of a doll and the actual doll, Jacob may have questioned the perception of reality. What was first? Was it the painting or the doll? An outside person not being present in the doll making experience or the painting process would not know what was first and possibly assume that the painting came after the doll. The only two people who know about Jacob's exact process are himself and I. This seems to create a special bond, perhaps even a secret, but for sure a connection.

Jacob stated in the next line of his doll story “The theme has a ritualistic feel to it.” It is unclear what theme he is referring to. There is the theme of the shamanistic/totem spirit doll or he could be referring to the “animal attributes” in the previous line. Another theme is his transformative process of creating a doll both as a painting and as a doll. In the last line of Jacob’s doll story, he said “The antennas and the mask keep it mysterious and keep a degree of separation from being a human figure.” This seems to be an explanation of why the doll is a shamanistic doll. Jacob’s expression of how he states this last line appears to be that of a narrator and is more descriptive of what the doll looks like. The narrator-like voice also creates a separation between the maker Jacob and his doll. When Jacob classified his doll as being a “separation from being a human figure” his idea of the figure has changed from shamanistic spirit doll to animal figure. Transformation is not only apparent in the doll image but also in the doll-making process of experimenting with different materials. Jacob used clay, fabric, paint, ink and also pipe cleaners to create his doll.

Response Art

I decided to create my own doll to understand aesthetically and with my own embodied experience the process and experience that my four participants engaged in therapeutic doll making. After dolls were created by the first two participants I realized that the focus of each participant was not on the face and also not about making an image of themselves. I wanted to see how my doll making experience would be different if I did not focus on the doll’s face, which was a choice that simulated the experience I observed of my participants. Notably, the face has been my favorite part whenever I have created dolls. I find the face to be the most expressive part on a doll.

I made my doll (*Tree Doll*; Figure 6) in one setting after Alice and Annie finished theirs, making the process a means of response to their work and also to utilize my own artmaking in part as a process of data analysis. Kapitan (2018) described how the researcher's artmaking can be a reflective process toward an artwork, which in this case was the doll of the participant. Such a work can evoke and amplify greater meaning. By creating my own dolls through this new lens that did not emphasize the face, I saw the doll making experience in a totally new way. So much of the meaning making with my participants was implicit and only emerged in the doll making process, which functioned as a channel in itself of a non-verbal communication that my own doll making process became part of.

Figure 6

Tree Doll by Alexia



My Own Doll Story (Tree Doll)

“The tree doll is in disguise, hiding behind leaves.

All she does is see and stay silent.

She is immobile; silent yet watchful about every move”.

Observations About My Process (Tree Doll)

To being my doll, I looked through all of my fabrics and different materials and was drawn to the texture of felt and smooth buttons. I consciously wanted to approach this doll differently and to focus less on the face and more on the overall figure, just like my participants had. I found that by not focusing on the face and putting my attention on the overall figure instead, I became more aware of the materials and the physicality of creating something with my hands. I wrapped the felt around the doll's body and glued the smooth leaves onto its head. I also noticed that I had made a character doll, much like my participants had. *Tree Doll* seems not at all related to my own persona. Up to this point, all of the dolls that I have made have been direct representations of myself and I have identified with them in some way. Importantly, after creating this doll, I noticed how disconnected and detached I felt from it. I have not wanted to take it home, in contrast with the other dolls I've made in the past. I feel that without a face that is fully formed, I cannot connect to it

Reflecting on my own process, I see that I created a character fantasy doll. This same, overarching theme emerged from the doll-making process with my participants as well. My doll is part tree and part human. Its characteristics have to do with being observant, silent, and watchful. These characteristics are related to my role as the therapist with the phenomenological mindset of a researcher who took in participants' information without judging and watched them as they created their dolls. The doll reminds me that I'm more aware of my role as a silent

observer when I work with clients with autism. My experience has been that too much disruption or distraction from the therapist can interrupt the process that the client is in and make the client retreat and stop.

Three participants transformed their doll from one character to another in their doll story and all of them transformed their doll throughout the doll-making session at least once by changing the image of the doll. This could have been by deciding to use paint on the body instead of making clothes for the doll as was the case with Alice or to create a Swedish Viking doll and then at the end name this character a politician. Annie changed her skater punk in her doll story into a waitress or server at a restaurant and Jacob's doll in his story is a shamanistic doll and later described as an animal figure. My doll is human and also a tree. Similar is the experience of utilizing many materials and noting the sensory differences between them. However, there also are many differences between my doll and that of the four participants. My doll is not part of a specific community and the subthemes of communication and connection are not part of my doll's story. I did not change my doll much in the process of making it and also did not change how I described my doll from the beginning to end of my doll story.

Figure 6 was created only after two participants had created theirs. I decided to create one more doll (Figure 7) after all participants had finished their dolls and to reflect on the dolls collectively and look for additional meaning in my second response doll.

My Second Doll Story (Abstract Doll)

"Limb-creature from the sea.

Soft, feathery, and shiny.

I want to hold you and investigate what is behind your veil and disguise."

Observations About My Process (Abstract Doll)

Before starting my second doll I studied all four participants' dolls and what stood out was the mask-like appearance of each. The participant dolls' faces are expressionless, giving them a lifeless feel. Again, as I formed my doll I was more aware of the materials I was creating with than anything else. I enjoyed wrapping ribbon around the doll's legs and using marker on the body's arms and chest, which I applied in reference to my participants' use of marker on the doll form. Interestingly, I'm more drawn to this doll than to *Tree Doll*. Partly because the face is covered, I assume that there are eyes and a mouth hidden behind the cloth around the neck. I also see this doll as being more playful than the other one I created. Many areas on the body are left white and expose the body without feeling weighted down like *Tree Doll*.

Figure 7

Abstract Doll by Alexia



This doll became a character fantasy doll as well. The “limb-creature from the sea” seems to be related to water and the ocean. It has symbols, such as fish swimming upward on the arm and shells glued onto the doll’s head. The doll is less identifiable and more abstract than the other doll because there is no face. Unlike my participants’ dolls, this doll does not have a specific role, like that of the Swedish Viking for example, and is therefore also not part of a community.

The subtheme of transformation that I noticed in all of the dolls created by my participants was present in this doll as well. The veil and disguise of the face suggest transformation. This transformation could be that it is unclear what hides behind the disguise of fabric on the face. Another subtheme that came out of my meaning making with this doll is connection. The phrase “I want to hold you and investigate what is behind your veil and disguise” illustrates this desire for a connection or relationship. Unlike my participants, I worked by myself as I created the doll and felt therefore the only sense of connection and inspiration coming from the other dolls held in my imagination. The only subtheme that is ruled out in my own meaning making with this doll and with *Tree Doll* is communication. This subtheme is not brought up in either of my doll stories.

Themes from the Participants Dolls and the Doll Making Process

Character Fantasy Formation

The major theme that emerged from the thematic analysis of the stories and doll-making experience with the four adult participants with autism was that of a character fantasy formation. The formation of a character fantasy changed and transformed over time, from both the creation of the doll and the doll story that each participant told. The fantasy character that emerged from their doll making process is in stark contrast to each participants’ apparent knowledge of the

created character and its attributes with their own personality. An example is Annie's skater punk that she described as "wild" when she herself presents as meek and quiet. Each of the participants created a character out of the doll form that was not based on their own attributes but rather was an imaginative yet very specific character. The story that each participant told me about their doll further explains the character and is related to it. Consider that when I gave the directive to each participant, I only stated, "Please create a doll." I did not specify what kind of doll or whether or not it should be a representation of the participant.

The fantasy characters are: tribal doll, Viking politician, skater punk, and shaman. None of the participants had ever mentioned these characters in therapy sessions before or discussed the traits and qualities that the characters represent. Annie, who created the skater punk doll, described her doll as "working at a restaurant." When I think of a skater punk, I think of wanting to be a rebel and not wanting to follow the norms. These attributes are in stark contrast with Annie, who is very docile and agreeable and hardly ever speaks up.

Clearly, the character that each participant created expresses a fantasy and is different from the participant's actual self. The same is true for Jacob. His shaman character represents someone who is spiritual and helps others. Jacob has not to my knowledge discussed in sessions any shamanistic beliefs and rarely communicates and interacts with others. Likewise, Joe's Viking politician doll represents a leader and someone who is a great communicator. Joe has shared his difficulty being in groups and the fact that he feels awkward about speaking up and doesn't know what to say to others. Alice's tribal doll "doing a dance" is also something that she had not talked about before and the aspect of movement and enjoying movement, as can be indicated by dancing, also contrasts with Alice being more comfortable in her home and with being still rather than in motion.

The actual character that was created does not seem to carry particular importance; rather, on a broader level, what seems to be important is the projection onto the doll form that took place. None of the participants expressed an idea of what character they would make before starting (at least none of them shared this viewpoint with me). Afterwards Joe even mentioned that he “did not know what he was going to make.” Annie also struggled to connect or find the words to describe her doll with her doll story when she said “I don’t know what to say about it.” The essence of doll making, therefore, is not the end product of a character but the allowance of being able to imagine what can be projected onto the shape of a three-dimensional human form. Feen-Calligan et al. (2009), Burns and O’Shea (2017), and So and Leung (2013) all commented that individuals who created a doll in their studies related more to the doll than to other art directives. They interacted directly with the doll and the making of the doll created a capacity for attachment that was observed before.

I have also considered that the fantasy characters of tribal girl or skater punk appear together yet are interchangeable. I believe this may be due to the participants not discussing any attributes or personality traits of their dolls after the sessions and limited knowledge of the doll’s character to begin with. However, it also seemed more important to have the doll be one character in the beginning and be able to change the context for the character and to give it a different role. An example of this is Joe’s Swedish Viking transforming into a politician and Jacob’s shamanistic doll becoming more animalistic and less human.

The characters all seem to illustrate the fantasy or desire to be someone different. An alternative interpretation is that the participants created a friend in the form of the doll. However, this might not be the case because none of the participants talked to their doll and their attachment to the dolls was limited to the sessions in which the dolls were created.

All of the participants demonstrated a degree of imaginative thinking in the process of making and describing the doll that was different from their usual concrete thinking patterns. In contrast, when engaged in other art media, such as drawings or paintings, they usually presented very concrete expression that attempted to be true to the exact image they were looking at as a reference. An example is that Annie has told me before that she feels she has to use the exact original color when drawing an Anime character and cannot substitute it with a slightly different tone. Joe has been unable to finish a mask because he could not envision how to decorate the face. The level of flexibility that I observed and witnessed in the doll making process was completely different from any other art making experience I have observed with clients with autism. This flexibility came from the participants changing art materials and adding and taking away fabric and yarn from the dolls, and also changing their doll story every so slightly as they shared it with me, and as I have described this transformation from the beginning to the end of the character.

Another important point about the characters created by participants is that they are not at all related to the participants' special interest topics. Annie is obsessed with *My Little Pony* and Anime, but chose not to make a doll related to either of those. Joe is very much enthralled with video games, but did not make a video game character.

Subthemes

The subthemes that I found within the data collected on all of the participants dolls and their doll stories were communication, connection, and transformation. These subthemes emerged from reading and re-reading all the doll stories and finding patterns and themes from the phrases and sentences that the participants used and also from my observational notes on the sessions. To ensure the validity of my interpretations of the themes, I checked with the participants and included their direct statements. To some extent my own response art of making

two dolls mimicked that of the participant's experience. Notably, I had some of the same themes emerge when I suspended my usual process of creation and followed the participants' implicit method of not focusing on the doll beforehand and also not focusing on the doll's face.

The subthemes revolve around the idea of community and wanting to belong to an idea or group. None of the four participants belongs to a particular community and especially not to the one represented by the doll that each one created. The four participants have addressed in therapy sessions individually with me their own struggles with socialization and being in group settings; all prefer to be alone. Alice has told me that she finds her college art class to be stressful due to the fact that many people are around her and that she often does not know what to say to them or how to interact with them.

Communication

The theme of communication is evident in all four participants' dolls. Each describes a character that communicates with other people. An example is the doll created by Joe, a Viking who is also a politician. The politician uses communication, much like the girl working at a restaurant created by Annie. The shamanistic doll communicates with the spirit world and the tribal girl doll appears to be communicating through the "dance of growing self-esteem." Alice named it that and a dance, in my opinion, represents a non-verbal way of communication.

As is the case with many people with autism, communication does not necessarily have to be verbal, a point suggested by two of the dolls that have no mouth (Alice's and Jacob's dolls). Furthermore, the feature of the doll's face figured significantly in the doll-making process for participants and my own art response. Two dolls have faces, but they have been masked. Both Annie and Joe used a Sharpie marker to quickly draw faces on their dolls. It was the last thing they did and seemed to be almost an afterthought.

At least two of the four participants communicated more in session about the past than they had done before the doll-making process. Alice had never talked much about her mother, but while making her doll she shared a bit about her mother's problems with alcohol and the deep connection she feels to her. Jacob also had never mentioned his father in sessions, yet briefly talked about his father and also his younger brother when making his doll. Since the doll making, Annie has become more assertive in art therapy sessions about what art projects she would like to work on and she has taken the initiative of finding her own imagery by looking at examples on social media. Joe, since the doll-making session, has spoken up to his father and been more assertive with him. These conversations were told to me by Joe and substantiated through text messages that he showed me in session, shortly following the doll making.

Connection

Communication and connection go hand in hand. When there is no communication, it is difficult to feel a connection to another person or group. I often experience that it is easier to communicate with a person with autism than to actually connect. In my opinion a connection is a deeper understanding between people that can also be non-verbal. When Alice described the doll's dance as "dance of growing self-esteem," I think she connected the doll's body to something that is formed in the mind. Self-esteem is a concept that seems to stem from our brain. Connection may be represented in the participants' dolls, for example, in mentions of "mother" and the "therapist" in Alice's doll story and in Joe's story of how the Viking "does not want to fight." To me this suggests that the Viking may be shifting in his role and wanting to connect and communicate rather than be violent. Both Joe and Annie spend a lot of time using their phones in their art therapy sessions, either to look up images or to look at the phone while talking to me, which is their process of self-soothing when in the presence of a therapist or other person.

During other art directives these two also have looked at their phones on and off. In contrast, while engaged in doll making their focus stayed on the doll and problem-solving was achieved through engagement in the process of creation rather than by looking up ideas or solutions from outside the experience.

A connection that I observed was also formed between each participant and myself, as I helped them to find the materials they wanted by looking together through my fabric basket. I often helped hold the fabric in place or helped to cut the yarn or to thread a needle. This process was more collaborative than that of other art projects that each participant has engaged in.

I also observed that a very intuitive connection was formed between the participants and the materials with which they worked. Annie and Alice redid the hair on their dolls twice because it did not feel or look right to them. Joe changed his idea of gluing and then sewing the Viking doll's shirt and instead used wire to attach the two leather pieces. Jacob painted his own fabric and experimented with paint and watercolor on fabric. Moreover, the dolls had to be moved and turned a lot in order to attach fabric, hats, and other accessories, which formed a connection to the dolls' bodies. Alice moved her doll back and forth and stated, "she is dancing." The Viking politician and the shaman doll take up more space than the other dolls by extending the position that they are in. Joe's Viking doll is holding a sword and shield and the shaman is sitting with his legs spread wide. All four participants sat in closer proximity to me than they normally sit and were actively cutting, shaping, and sewing and using their hands more than usual.

Transformation

The theme of transformation is conveyed in the naming of the dolls: the skater punk is also a waitress, the Viking a politician, and the animal-human figure a shaman much like the

deer shaman. There also was a transformation in the participants and their level of energy exhibited in the sessions, as well as their dolls' activity level. All of the dolls seem to be doing something and are active in their role of Viking politician, server at a restaurant, and shaman. In contrast, three of the four participants have stated that they often feel less active and lack energy or ability to leave their home (Annie, Jacob, and Joe).

Summary

This chapter presented the results of therapeutic doll making and the theme of character fantasy formation and subthemes of connection, communication, and transformation during doll making with four adults with autism. After bracketing off my own thoughts and expectations about therapeutic doll making with autistic individuals, I looked for patterns and themes in each of the participant's doll stories and then common broader themes derived from all of the doll stories. I not only checked with the participants about certain meanings and phrases, but also sought examples from the verbatim stories as evidence to validate my findings. My own response art to the participants' doll was another way to extract as much meaning as possible from the doll making experience and the participant's doll story.

The main result was the formation of fantasy character as an essential component of doll making for four participating client adults with autism and, with that, a seeking to be part of a community. Clustered around the main result are the themes of communication, connection, and transformation. Different personality traits that the participants might wish for or admire are projected onto the human doll form. The experience of therapeutic doll making freed participants to become more creative and imaginative in the actual creation of the doll. While it is unclear if the doll is a representation of each participant, the doll is a fantasy character with characteristics that are unlike the participants. Through this experience, the participants increased their

flexibility in transforming the character multiple times through shifts in choices of art materials and in the description of the actual character.

CHAPTER 5: DISCUSSION AND CONCLUSION

My research study sought to take the participants' neurodiversity into consideration by examining their own expression on their own terms and through the art of the lived experience of doll making. I also sought to impose as little as possible of my own ideas or expectations onto the participant. This was a shift in me as I engaged the participants with a phenomenological mindset and suspended by own agenda or judgement on what this process was or had to look like. This allowed me to see below the surface presentations from the participants without the analytical or categorial framework that accompanies assessment and treatment (Kapitan, 2018). As a therapist I have been trained to view autism as a diagnosis with a set of inherent problems rather than a neurodiverse orientation. Therefore, this attitudinal shift was necessary and critical to the study aims and ensured that I would give a voice to the participants.

The doll stories also helped in creating another channel for communication by drawing on an alternative aspect of language to describe the meaning of the dolls and to set them into a context of the doll's own personality and identity. The four participants created characters out of their dolls that are very different from themselves. It is unknown to me where the ideas for the characters came from, since the participants did not disclose them. In the discussion that follows I will address the results with respect to each participant and discuss how their process of therapeutic doll making was impactful during the sessions and possibly afterward.

When I considered Alice and her process I noticed how the few sessions of doll making allowed her to become freer and to initiate and make changes, indicating a capacity for transformation that had not been present in our sessions before. She both transformed and moved pieces of her doll around when it felt that they did not seem right to her. It was a process in which she was allowed to make decisions and even mistakes and have choices. She had been

timid in sessions before but she had a voice in this process. Following the doll making, she was able to speak up during art making in therapy and continued the process of picking and choosing her own materials for her projects. There now seems to be a new level of flexibility and also ownership in her work. She feels comfortable enough with me to make changes and ask for what she needs rather than looking to me to decide or lay out options for her. When I asked Alice about her own impression of how and if anything has changed since the doll-making experience, she stated:

The doll felt empowering and opened up deeper thoughts. The doll expressed the beauty of my differences and helped me to embrace those differences in a more confident way. The doll had less problem-solving and more freedom of emotion to it, which I like digging around in emotions; they're very mystical to me.

When Alice discussed the impact of the doll making, she stated that she felt empowered by the experience. The ability to use more art directives that allow for freedom of materials and are empowering is important in the continuous care of this specific participant. The confidence that she described gaining is exactly what I saw in her interactions with me afterward. She had become more vocal about her needs in terms of art materials she wanted to use. When she recounted feeling more emotions during the process, it suggested to me Gallese's (2009) finding that a lack of empathy observed in individuals with autism may be a result of a deficit in mirror neurons. Hass-Cohen and Findlay (2015) argued that empathy can be strengthened using art therapy, and this seems to be the case with Alice: the art strengthened her understanding of more emotions and created an awareness about them that was not there before. Her statement "they're very mystical to me" while describing emotions conveys a feeling of wonderment for her rather than being frightened by those feelings. It also appears that Alice's awareness of her feelings in

her body increased her interoception, which refers to an awareness of the feelings, thoughts, and sensations in one's body. Mahler (2015) stated that interoceptive awareness can be improved through mindfulness. I posit that it can also be improved through the use of doll making and possibly other art-making activities that offer a tactile, absorbing focus. As with mindfulness, participants in my study were able to reach a state of calm and introspection through active use of their hands, staying in the moment while choosing fabrics and materials for their doll. Neither the past nor the future was important to any of the four participants during doll making and while being engaged in the art process.

As a major finding in this study, I posit that the character fantasy formation that became evident for each participant placed their dolls in the context of a specific community they desired. I wonder if the participants would like to be part of a community or if this desire is seen as unreachable and unattainable, which would explain why these characters came forward in the doll making and were not typically in the participants' minds (at least not to my knowledge). To elaborate on this point, I note that Alice is already part of a community, because she identifies as an artist and art student. Yet she decided not to portray herself as an artist in her own community. I posit that she may be unable to recognize that she already is a member of a community, but might not feel accepted there or have different ideas of what it means to be part of a community. Being part of a "tribal" community may feel more or exotic to her.

Joe created a doll that combined a fighter with a politician. The two characters were conjoined and one doll emerged. Joe has been more of a fighter by physically fighting with his mother and illustrating anger toward her in the past. A few weeks after the doll-making session he moved into his own apartment in a community-supported facility for college students with ASD. He has transformed in the sense that he is now part of that community and has been

assertive about his own needs when his first roommate continuously created noises at night while he wanted to sleep. He was able to navigate the situation by positively communicating and creating change and asking to be removed from this apartment and placed with a new roommate.

In my notes about Annie during the study I stated that she was very different from a skater punk rebel. Since then I have seen her act out and rebel more against schedules and norms and also her mother. Shortly after the doll-making session, Annie stopped coming to art therapy. When her mother suggested having a joint therapy session with me, Annie at first refused. Eventually she agreed, but insisted on meeting her mother at my office and getting there on her own. Although I do not know what precisely created the change in her behavior, it may be a result of her experience of the doll making or just a coincidence of circumstances. Her mother told me during a phone conversation that Annie seemed more confident and had told her that she was going to become an art docent at a museum. Her timid behavior from before seemed to have gone and her mother was very surprised and shocked by her assertive statement.

Jacob has for the first time expressed to me that he needs more concrete help with a personal aide who comes to his home. When I texted him the name of someone he had worked with in the past, he was assertively told me no and refused to work again with this specific person. His communication was very direct, which seemed surprising to me. In the past he would have been more indirect and passive with me and not texted me back outside of our session. He also told me in our last session that he had made an appointment with a gallery in a nearby city and was going to show his work to the owner. Again, I can only speculate whether this obvious change in behavior was facilitated by the doll-making experience of finding and asserting his own voice. Jacob did not tell me about anything else that had happened in his life in the last few weeks that could have accounted better for the change.

Overall, I found that each of the participants connected more to me after the doll making experience than to the actual doll they had created. Except for Alice, none of them asked to take the doll home. Therefore, I would argue that the doll seemed to be less about having an object to attach to or process and instead was a vehicle to change an existing pattern of interaction to a more active engagement. This change appears to be mostly visible in terms of communication to the outside world and interactions with close family members.

Finally, I saw a change in myself when I responded to the lived experience of the participants with a doll making process of my own that engaged me in a parallel experience. Unlike previous dolls I have made, in this process I did not focus on the face of my doll. I also did not care as much about my doll without a face and felt detached. Yet when I completely masked or hid any indication of a face in my second doll, I felt more connected to the doll again. I posit that the lack of any facial recognition served to foster my own imagination about what could be hiding behind it.

I feel I was able to get a glimpse of the mindset of an adult with autism, which might foster greater understanding and possibly can be a tool used in the future in creating dolls with clients with and without autism in the same group setting to foster empathy and understanding.

Implications for ASD Treatment

In Chapter 2, I outlined the three different treatment options available to individuals with autism. The main treatment approach is cognitive behavioral therapy, followed by sensory integration and body/mind approaches to treatment. The outcome of doll making in art therapy can add to the discourse in treatment options available to clients with ASD. Through the creation of a character fantasy doll the four participants were able to literally break out of their shell and to be more explicit in voicing their needs out in the community and especially with me in therapy sessions. An example is that Joe often had not been listened to by others, but most recently

advocated in his college program and was heard by the people in charge which brought about change to his self-esteem and in his ability to further advocate with me for an increase in weekly check-ins.

Further, a collaborative and accessible approach towards neurodivergent people was designed into the study by inviting the participants to take charge of what to make within the parameters of doll making. This approach is in line with current research that seeks to empower people with disabilities to make their own choices and use their voices to create change and to be heard (Silberman, 2015). Stallings (2019) stated that collaboration as a feature of art therapy allows the client and therapist to be equal partners in the creative and therapeutic process, which is not the case in CBT. Because I served as a witness to the participants' process of creating their doll (rather than a more typical therapist-directed approach), a space was opened up for the participant and me to become collaborators. For example, I would look through the materials to find what the participant described that they were looking for, hold the doll in place, or prepare the sewing materials. Thus, I became a collaborator with the client, and able to assist them in providing the art materials and relationship needed.

Just as the diagnosis of ASD varies from one person to another, so did the outcome that each participant in this study experienced. In terms of social interaction, the change was subtle, yet doll making had an impact in each individual's life by the participant creating more change. Unlike social skills training offered by the PEERS model that practices role-play and perspective-taking (Karst et al., 2015), in therapeutic doll making the individual is in charge of the impacts of their interactions despite the possibility of having little awareness of any change that occurred. Therapeutic change was experienced by the participant through this process and

not imposed on the participant by another person, which thus conveys respect for their neurodiversity.

Implications for Art Therapy

According to the literature, art therapy with individuals with autism is seen as helpful in terms of building a connection and in creating sensory experiences (Durrani, 2014). My study on doll making with this population further substantiates this claim and adds to the existing literature on the importance of including art therapy in the treatment options for autistic clients. Martinovich (2006) noted how art therapy allows for experiences to be seen in a context and not just as isolated information that is unrelated to a client's own world. My observations illustrated the intensity most of the participants experienced while creating the dolls. They seemed genuinely invested in the process. I observed Joe working with more intensity and speed than he had before in our art therapy sessions. It is possible that Joe and Annie both experienced more of a state of flow (Csikszentmihályi, 1990, as seen by their ability to disregard their phones during the entire session and by keeping an intense focus and absorption throughout the session. This outcome confirms Kapitan's (2013) observation of children with autism who entered a flow-like state while engaging in art making and noted how their demeanor and social interaction changed during the session.

Therapeutic doll making in art therapy with adults with autism addressed important areas in improving life previously identified in the literature on art therapy with this population. All of the participants used problem solving in the doll making process by showing flexibility in using different materials (Darewyck, 2018) and adding onto the doll form and taking away art materials when necessary. The participants also found their own pace (Dolphin et al., 2014) and rhythm in how long each decided to spend on the doll making process. Furthermore, the doll

making process increased the participants' social skills by working jointly together (Rosen et al., 2016) and collaborating on the choices of material, and holding the glue and fabrics in place. An increase in interaction was not only observed by the connection between client and therapist, but also reported by the participants outside of the doll-making experience. Bisagni (2012) and Miller et al. (2008) had commented on the ability of the art process to lessen the pressure of language on individuals with autism, that of describing thoughts and experiences not through words but with art. The dolls were a vehicle in this process to focus more on the three-dimensional object and less on describing it.

Additionally, the descriptions of the doll character allowed for the participants to project onto the doll various feelings and also to speak through the character implicitly about own possible wishes to be someone else, as Gerity (1999) and Steinhardt (1994) both described in their experiences with clients making dolls. All of the character fantasy dolls created by the study participants are strong and independent. Such a projection from the participants onto the human-like doll form possibly influenced their own sense of independence, as evidenced by the participants' changes in their own lives after the doll making experience, which is difficult to contribute to anything else. The multisensory experience that doll making offered, by the different material choices and also by moving around more in the room (Durrani, 2019), might also have contributed to a change in the participants afterwards. Elkis-Abuhoff (2008) observed a similar change in her client with autism when new sensory experiences with art materials were provided.

Limitations of the Study

This study is qualitative in nature and the findings are not generalizable to a population. Rather, they generalize to the lived experience and objects of this research that may resonate

with other individuals with autism who find therapeutic doll making helpful. It is difficult to replicate a phenomenological research study, due to the different participants creating their own unique meaning about the phenomenon (Vagle, 2018; van Manen, 2014). However, it is reasonable to assume that future researchers who follow the same procedures may achieve meaningful results that illuminate particular essences of doll making. A major limitation of the study is due to the verbalization qualities of those who have autism. That is, all of the participants had a very concrete way of expressing in words their experience of doll making and describing their own character doll. Therefore, much of the meaning making had to be deduced from rather brief descriptions in addition to my own observations obtained from notes and analyzing the participants' finished art products. In addition, my own doll response art helped in deepening my understanding of the participants process. Although I systematically bracketed my assumptions and judgements throughout the analysis, it was inevitable that I would see the data and experiences through my own subjective lens and that lens is informed by my own background and history.

An additional limitation of this research study is the small sample size of having only four participants create dolls in individual sessions. I wonder if a bigger sample size would have created more themes and therefore substantiated the outcome even more. I'm also curious if a group setting would have provided greater dialogue between all of the participants about their dolls and illustrated or shifted the dynamics between before the doll making experience and afterwards. Another limitation is that all four participants with autism are high functioning, which is consistent with the fact that most research is on high functioning adults with autism (Kreslins et al., 2015; Lang et al., 2010). My study was conducted in a private practice setting

and is very different from other settings, such as a community center or group home, which provides another limitation.

To mitigate these limitations in the study design, I sought to be constantly aware of and put aside my bias that doll making would be revealed to be therapeutic and able to have an impact on adults with autism, and I bracketed this bias off from the beginning of this study. I tried to suspend my own expectations of witnessing the phenomenon of therapeutic doll making to the best of my ability. Furthermore, I am aware that all four participants already had some level of comfort with me due to the fact that I had worked with each of them for at least 6 months prior to the study. This level of intimacy in sessions helped create the connection to the four participants and also with their level of comfort toward all different kinds of art materials. Their familiarity with me, perhaps equal to or more so than the doll-making process, might have increased participants' verbalization and creative risk-taking with art materials; this might result might have been different with participants that were not familiar with this process. However, it could be argued that therapeutic doll making might be most effective when the therapeutic alliance is well established.

Recommendations for Future Research

My study results from therapeutic doll making with adults with autism illustrated to me the impact that art therapy, especially art therapy that includes a multifaceted sensory experience, has on participants. Further research with a larger sample size could solidify and validate the study claims and impacts. Another research study could also observe younger individuals with autism and how they respond to doll making, as well as different settings besides a private practice. I have seen some changes in behavior that included more assertiveness with all participants, which was reported to me by the participants and their interactions in the

community. This assertiveness seems to have come out of the character fantasy doll that was created and made explicit some of the implicit strengths of the participants and their wish for greater independence. All four characters that the dolls represent are strong. Longitudinal research is needed to evaluate whether this level of change might continue and be sustainable in these individuals' lives.

Conclusion

The purpose of my study was to examine doll making with adults with autism and to observe the resultant phenomena. The results illustrated that for these adults with autism, the dolls they created showed a character formation that was unlike their own self-presentations and yet part of a specific community. Communication, connection, and transformation were implicated in the phenomenon of study, which are all areas that people with autism often struggle the most within everyday life. Social interaction, communication, and connection to others is often very difficult for individuals with autism; transformation or change is something that many people with autism try to avoid and that can lead to an increase in anxiety and a feeling of being overwhelmed.

I had no idea what I would find when I set out on this journey. The review of literature on autism provided me with a conceptual foundation to understand the different treatment approaches and current influences on ASD. Although the literature on art therapy has recognized some important aspects on how the creative process can be beneficial to people with autism, more research is needed. I hope this dissertation illustrates the importance of a sensory-based approach to art therapy for this population and strengthens the ability of all individuals with autism to have greater access to engage in this or similar creative processes. Doll making provided participants in my study greater empowerment and supported them in finding their own

solutions to problems in a setting that invited experimentation and development of their own experiences and ideas. The doll making was also a multisensory experience that included different materials such as fabrics, paint, yarn, and beads. I had not imagined that participants would create fantasy characters who displayed confidence and would be very different from themselves. All four participants created very imaginative dolls that had no obvious reference to their day-to-day life or to their special interests.

My hope is that this dissertation sparks more research on the topic of doll making, specifically with autistic individuals. Doll making increased the engagement that participants had with the art therapy process that is often times not there with traditional art materials. Therapeutic doll making offers art therapists a highly engaging, interactive experience for their clients— one that is tactile as well as sensual and does not rely on language. That doll-making participants transformed both their dolls and themselves, and opened up new avenues for interpersonal communication and self-efficacy, indicates a unique aspect of the process that offers a valuable option for neurodiverse treatment and quality of life.

References

- Ainsworth, M. D. (1964). Patterns of attachment behavior shown by the infant in interaction with his mother. *Merrill-Palmer Quarterly*, 10(1), 51–58.
- Ainsworth, M. D. (1969). Object relations, dependency, and attachment: A theoretical review of the infant-mother relationship. *Child Development*, 40, 969–1025.
- American Psychiatric Association (1980). DSM-III: *Diagnostic and statistical manual of mental disorders* (3rd ed.).
- American Psychiatric Association (1994). DSM-IV: *Diagnostic and statistical manual of mental disorders* (4th ed.).
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Ames, M., & Weiss, J. (2013). Cognitive behavior therapy for a child with autism spectrum disorder and verbal impairment: A case study. *Journal of Developmental Disabilities*, 19(1), 61–69.
- Armstrong, T. (2010). *Neurodiversity: Discovering the extraordinary gifts of autism, ADHD, dyslexia, and other brain differences*. Da Capo Press.
- Armstrong, T. (2015). The myth of the normal brain: Embracing neurodiversity. *AMA Journal of Ethics*, 17(4), 348–352. <https://doi.org/10.1001/journalofethics.2015.17.4.msoc1-1504>
- Asada, K., Tojo, Y., Hakarino, K., Saito, A., Hasegawa, T., & Kumagaya, S. (2018). Brief report: Body image in autism: Evidence from body size estimation. *Journal of Autism and Developmental Disorders*, 48(2), 611–618. <https://doi.org/10.1007/s10803-017-3323-x>

- Asperger, H. (1944). Die “autistischen psychopathen” im kindesalter [The “autistic psychopaths” in childhood]. *Archiv für Psychiatrie und Nervenkrankheiten*, 117(1), 76–136.
<https://doi.org/10.1007/BF01837709>
- Attwood, T. (2004). Cognitive behavior therapy for children and adults with Asperger’s syndrome. *Behaviour Change*, 21(3), 147-161.
<https://doi.org/10.1375/bech.21.3.147.55995>
- Autistic Self Advocacy Network. (2019). *About*. <https://autisticadvocacy.org/about-asan>
- Avrahami, D. (2005). Visual art therapy’s unique contribution in the treatment of post-traumatic stress disorders. *Journal of Trauma & Dissociation*, 6(4), 5–38.
https://doi.org/10.1300/J229v06n04_02
- Axline, V. M. (1955). Therapeutic play techniques: Play therapy procedures and results. *American Journal of Orthopsychiatry*, 25(3), 618–626. <https://doi.org/10.1111/j.1939-0025.1955.tb00157.x>
- Ayres, J. A. (1972). *Sensory integration and learning disorders*. Western Psychological Services.
- Banks, S. J., Eddy, K. T., Angstadt, M., Nathan, P. J., & Phan, K. L. (2007). Amygdala-frontal connectivity during emotion regulation. *Social Cognitive and Affective Neuroscience*, 2(4), 303–312. <https://doi.org/10.1093/scan/nsm029>
- Baron-Cohen, S., Jaffa, T., Davies, S., Auyeung, B., Allison, C., & Wheelwright, S. (2013). Do girls with anorexia nervosa have elevated autistic traits? *Molecular Autism*, 4(24), <https://doi.org/10.1186/2040-2392-4-24>

- Baron-Cohen, S. (2017). Editorial perspective: Neurodiversity—A revolutionary concept for autism and psychiatry. *The Journal of Child Psychology and Psychiatry*, 58(6), 744–747. <https://doi.org/10.1111/jcpp.12703>
- Beck, A. T. (2005). The current state of cognitive therapy. *Archives of General Psychiatry*, 62(9), 953–959. <https://doi.org/10.1001/archpsyc.62.9.953>
- Biedermann, H. (1992). *Dictionary of symbolism: Cultural icons and the meanings behind them*. Penguin Books.
- Birnbaum, S., Hanchuk, H., & Nelson, M. (2015). Therapeutic doll play in the treatment of a severely impaired psychiatric inpatient: Dramatic clinical improvements with a nontraditional nursing intervention. *Journal of Psychosocial Nursing*, 53(5), 22–27.
- Bisagni, F. (2012). Delusional development in child autism at the onset of puberty: Vicissitudes of psychic dimensionality between disintegration and development. *The International Journal of Psychoanalysis*, 93(3), 667–692. <https://doi.org/10.1111/j.1745-8315.2012.00596.x>
- Bons, D., van den Broeck, E., Scheepers, F., Herpers, P., Rommelse, N., & Buitelaar, J. K. (2013). Motor, emotional and cognitive empathy in children and adolescents with autism spectrum disorder and conduct disorder. *Journal of Abnormal Child Psychology*, 41, 425–443. <https://doi.org/10.1007/s10802-012-9689-5>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology*, 28(5), 759–775.

- Brown, S. (1998). Play as an organizing principle: Clinical evidence and personal observations. In M. Bekoff & J. A. Byers (Eds.), *Animal play: Evolutionary, comparative and ecological perspectives* (pp.243-259). Cambridge University Press.
- Burns, S., & O'Shea, R. (2017). "I like your new coat": The emergence of secure base and sense of self and other through an art psychotherapy relationship. *International Journal of Art Therapy*, 22(2), 46–56. <https://doi.org/10.1080/17454832.2017.1287747>
- Burt, E. L., & Atkinson, J. (2011). The relationship between quilting and wellbeing. *Journal of Public Health*, 34(1), 54–59. <https://doi.org/10.1093/pubmed/fdr04>
- Caminha, R. C., & Lampreia, C. (2012). Findings on sensory deficits in autism: Implications for understanding the disorder. *Psychology & Neuroscience*, 5(2), 231–237. <https://doi.org/10.3922/j.psns.2012.2.14>
- Cao, H., Shan, W., Xu, Y., & Xu, R. (2013). Eastern sandplay as a safe container for a combined intervention for a child with Asperger syndrome: A case study. *The Arts in Psychotherapy*, 40, 134–142. <https://doi.org/10.1016/j.aip.2012.12.008>
- Carr, S. M. D., & Hancock, S. (2017). Healing the inner child through portrait therapy: Illness, identity and childhood trauma. *International Journal of Art Therapy*, 22(1), 8–21. <https://doi.org/10.1080/17454832.2016.1245767>
- Centers for Disease Control and Prevention. (2014). *Autism spectrum disorder (ASD) data and statistics*. <http://www.cdc.gov/ncbddd/autism/data.html>
- Chalfant, A. M., Rapee, R., & Carroll, L. (2007). Treating anxiety disorders in children with high functioning autism spectrum disorders: A controlled trial. *Journal of Autism and Developmental Disorders*, 37, 1842–1857. <https://doi.org/10.1007/s10803-006-0318-4>

- Chambala, A. (2008). Anxiety and art therapy: Treatment in the public eye. *Art Therapy: Journal of the American Art Therapy Association*, 25(4), 187–189.
<https://doi.org/10.1080/07421656.2008.10129540>
- Chan, A. S., Sze, S. L., Siu, N. Y., Lau, E. M., & Cheung, M. (2013). A Chinese mind-body exercise improves self-control of children with autism: A randomized controlled trial. *PLoS ONE*, 8(7), Article e68184. <https://doi.org/10.1371/journal.pone.0068184>
- Cockerham, D., & Malaia, E. (2016). Neuroscience-based approaches to teaching students on the autism spectrum. *Zeitschrift für Psychologie*, 224(4), 290–293.
<https://doi.org/10.1027/2151-2604/a000265>
- Conner, C. M., & White, S. W. (2018). Brief report: Feasibility and preliminary efficacy of individual mindfulness therapy for adults with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 48, 290–300. <https://doi.org/10.1007/s10803-017-3312-0>
- Conson, M., Hamilton, A., De Bellis, F., Errico, D., Improta, I., Mazzarella, E., Trojano, L., & Frolli, A. (2016). Body constraints on motor simulation in autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 46(3), 1051–1060.
<https://doi.org/10.1007/s10803-015-2652-x>
- Cossu, G., Boria, S., Copioli, C., Bracceschi, R., Giuberti, V., Sanytelli, E., & Gallese, V. (2012). Motor representation of actions in children with autism. *PLoS ONE*, 7(9), Article e44779. <https://doi.org/10.1371/journal.pone.0044779>
- Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, M. G., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological Medicine*, 47, 990–990. <https://doi.org/10.1017/S0033291716003317>

- Crawford, E. A., Frank, H. E., Palitz, S. A., Davis, J. P., & Kendall, P. C. (2018). Process factors associated with improved outcomes in CBT for anxious youth: Therapeutic content, alliance, and therapist actions. *Cognitive Therapy Research*, 42, 172–183.
<https://doi.org/10.1007/s10608-017-9864-7>
- Creed, T. (2015, April 28). *An introduction to CBT for people with an autism spectrum disorder*. Beck Institute for Cognitive Behavior Therapy. <https://beckinstitute.org/an-introduction-to-cbt-for-people-with-an-autism-spectrum-disorder/>
- Creswell, J.W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Sage Publications.
- Csikszentmihályi, M. (1990). *Flow: The psychology of optimal experience*. Harper & Row.
- Damasio, A. R. (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. Houghton Mifflin Harcourt.
- Damasio, A. R. (2018). *The strange order of things: Life, feeling, and the making of cultures*. Pantheon Books.
- D'Amico, M., & Lalonde, C. (2017). The effectiveness of art therapy for teaching social skills to children with autism spectrum disorder. *Art Therapy: Journal of the American Art Therapy Association*, 34(4), 176–182. <https://doi.org/10.1080/07421656.2017.1384678>
- Darewych, O. H., Newton, N. J., & Farrugie, K. W. (2018). Investigating imagination in adults with autism spectrum disorder with art-based assessments. *Journal on Developmental Disabilities*, 23(2), 27–36.
- David, D., Cristea, I., & Hofmann, S. G. (2018). Why cognitive behavioral therapy is the current gold standard of psychotherapy. *Frontiers in Psychotherapy*, 9, Article 4.
<https://doi.org/10.3389/fpsy.2018.00004>

- Dolphin, M., Byers, A., Goldsmith, A., & Jones, R. E. (Eds.). (2014). *Psychodynamic art therapy: Practice with people on the autism spectrum*. Routledge.
- Durrani, H. (2014). Facilitating attachment in children with autism through art therapy: A case study. *Journal of Psychotherapy Integration*, 24(2), 99–108.
<https://doi.org/10.1037/a0036974>
- Durrani, H. (2019). *Facilitating attachment in children with autism through sensory-based relational art therapy approach (S-BRATA)* [Doctoral dissertation, Mount Mary University]. https://my.mtmary.edu/ICS/icsfs/Durrani%2c_Huma.pdf?target=e8f46f22-9c31-4cf8-b1c4-77a18dc20858
- Ecker, C., Bookheimer, S. Y., & Murphy, D. G. M. (2015). Neuroimaging in autism spectrum disorder: Brain structure and function across the lifespan. *The Lancet Neurology*, 14, 1121–1134. [https://doi.org/10.1016/S1474-4422\(15\)00050-2](https://doi.org/10.1016/S1474-4422(15)00050-2)
- Education for All Handicapped Children Act of 1975, Pub. L. No. 94-142, 89 Stat. 773 (1975).
- Eisner, E. (2003). On the art and science of qualitative research in psychology. In P. M. Camic, J. E. Rhodes, & L. Yardley (Eds.), *Qualitative research in psychology: Expanding perspectives in methodology and design* (pp. 17–30). American Psychological Association.
- Ekman, E., & Hiltunen, A. J. (2015). Modified CBT using visualization for autism spectrum disorder (ASD), anxiety and avoidance behavior—A quasi-experimental open pilot study. *Scandinavian Journal of Psychology*, 56(6), 641–648. <https://doi.org/10.1111/sjop.12255>
- ElGarhy, S., & Liu, T. (2016). Effects of psychomotor intervention program on students with autism spectrum disorder. *School Psychology Quarterly*, 31(4), 491–506.
<https://doi.org/10.1037/spq0000164>

- Elkis-Abuhoff, D. L. (2008). Art therapy applied to an adolescent with Asperger's syndrome. *The Arts in Psychotherapy, 35*, 262–270. <https://doi.org/10.1016/j.aip.2008.06.007>
- Elliot, G., & Kelley, A. (2016). Doll therapy. *Canadian Nursing Home, 27*(1), 10–16.
- Emery, M. J. (2004). Art therapy as an intervention for autism. *Art Therapy: Journal of the American Art Therapy Association, 21*(3), 143–147.
<https://doi.org/10.1080/07421656.2004.10129500>
- Enticott, P., Kennedy, H. A., Rinehart, N. J., Bradshaw, J. L., Tonge, B. J., Daskalakis, Z. J., & Fitzgerald, P. B. (2013). Interpersonal motor resonance in autism spectrum disorder: Evidence against a global “mirror system” deficit. *Frontiers in Human Neuroscience, 7*(218). <https://doi.org/10.3389/fnhum.2013.00218>
- 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.
- Evans, K., & Dubowski, J. (2001). *Art therapy with children on the autistic spectrum: Beyond words*. Jessica Kingsley Publishers.
- Failla, M. D., Peters, B. R., Karbasforoushan, H., Foss-Feig, J. H., Schauder, K. B., Heflin, B. H., & Cascio, C. J. (2017). Intra-insular connectivity and somatosensory responsiveness in young children with ASD. *Molecular Autism, 8*(25), 1–11.
<https://doi.org/10.1186/s13229-017-0143-y>
- Feen-Calligan, H., McIntyre, B., & Sands-Goldstein, M. (2009). Art therapy applications of dolls in grief recovery, identity, and community service. *Art Therapy: Journal of the American Art Therapy Association, 26*(4), 167–173.
<https://doi.org/10.1080/07421656.2009.10129613>

- Fenton, A., & Krahn, T. (2007). Autism, neurodiversity, and equality beyond the 'normal.'
Journal of Ethics in Mental Health, 2(2), 1–6.
- Franklin, M. (2010). Affect regulation, mirror neurons, and the third hand: Formulating mindful empathetic art interventions. *Art Therapy: Journal of the American Art Therapy Association*, 27(4), 160–167. <https://doi.org/10.1080/07421656.2010.10129385>
- Freedberg, D., & Gallese, V. (2007). Motion, emotion and empathy in esthetic experience.
Trends in Cognitive Sciences, 11(5), 197–203. <https://doi.org/10.1016/j.tics.2007.02.003>
- Fuentes, C., Mostofsky, S. H., & Bastian, A. J. (2011). No proprioceptive deficits in autism despite movement-related sensory and execution impairments. *Journal of Autism and Developmental Disorders*, 41, 1352–1361. <https://doi.org/10.1007/s10803-010-1161-1>
- Gabriels, R. L., & Gaffey, L. J. (2012). Art therapy with children on the autism spectrum. In C. Malchiodi (Ed.), *Handbook of art therapy* (pp. 205–221). Guilford Press.
- Gallese, V. (2009). Mirror neurons, embodied simulation, and the neural basis of social identification. *Psychoanalytic Dialogues*, 19, 519–536.
<https://doi.org/10.1080/10481880903231910>
- Garlock, L. R. (2016). Stories in the cloth: Art therapy and narrative textiles. *Art Therapy: Journal of the American Art Therapy Association*, 33(2), 58–66.
<https://doi.org/10.1080/07421656.2016.1164004>
- Gaus, V. L. (2011). Cognitive behavioural therapy for adults with autism spectrum disorder. *Advances in Mental Health and Intellectual Disabilities*, 5(5), 15–25.
- Gavron, T., & Mayseless, O. (2018). Creating art together as a transformative process in parent-child relations: The therapeutic aspects of the joint painting procedure. *Frontiers in Psychology*, 9, Article 2154. <https://doi.org/10.3389/fpsyg.2018.02154>

- Gaynard, L., Goldberger, J., & Laidley, L. N. (1991). The use of stuffed, body outline dolls with hospitalized children and adolescents. *Child Health Care*, 20, 216–224.
- Gerity, L. A. (1999). *Creativity and the dissociative patient: Puppets, narrative, and art in the treatment of survivors of childhood trauma*. Jessica Kingsley Publishers.
- Gibbs, R. W. (2013). Artistic understanding as embodied simulation. *Behavioral and Brain Sciences*, 36(2), 143–144. <https://doi.org/10.1017/SO140525X1200163x>
- Giorgi, A. (2009). *The descriptive phenomenological method in psychology: A modified Husserlian approach*. Duquesne University Press.
- Goggin, M. D. (2014). Threads of feeling: Embroidering craftivism to protest the disappearances and deaths in the “war on drugs” in Mexico. *Textile Society of America 2014 Biennial Symposium Proceedings: New Directions: Examining the Past, Creating the Future*, Article 937. <http://digitalcommons.unl.edu/tsaconf/937>
- Gold, R., & Faust, M. (2010). Right hemisphere dysfunction and metaphor comprehension in young adults with Asperger syndrome. *Journal of Autism and Developmental Disorders*, 40, 800–811. <http://doi.org/10.1007/s10803-009-0930-1>
- 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.
- Grandin, T. (1992). Calming effects of deep touch pressure in patients with autistic disorder, college students, and animals. *Journal of Child and Adolescent Psychopharmacology*, 2(1), 63–72. <https://doi.org/10.1089/cap.1992.2.63>
- Gray, B. L. (2012). The Babushka Project: Mediating between the margins and wider community through public art creation. *Art Therapy: Journal of the American Art Therapy Association*, 29(3), 113–119. <https://doi.org/10.1080/07421656.2012.701600>

- Gross, J. J. (1998). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression and physiology. *Journal of Personality and Social Psychology*, 74(1), 224–237.
- Gruson-Wood, J. (2016). Autism, expert discourses, and subjectification: A critical examination of applied behavioural therapies. *Studies in Social Justice*, 10(1), 38–58.
<https://doi.org/10.26522/ssj.v.10i.1331>
- Guerney, L. (2001). Child-centered play therapy. *International Journal of Play Therapy*, 10(2), 13–31. <https://doi.org/10.1037/h0089477>
- Hamilton, A. F. de C., Brindley, R. M., & Frith, U. (2007). Imitation and action understanding in autistic spectrum disorders: How valid is the hypothesis of a deficit in the mirror neuron system? *Neuropsychologia*, 45(8), 1859–1868.
<https://doi.org/10.1016/j.neuropsychologia.2006.11.022>
- Hass-Cohen, N., & Findlay, J. C. (2015). *Art therapy & the neuroscience of relationships, creativity, & resiliency: Skills and practices*. W. W. Norton & Company.
- Hastings, P. (2003). *Doll making as a transformative process*. Pamela Hastings.
- Henley, D. R. (1987). Art assessment with the handicapped: Clinical, aesthetic and ethical considerations. *Art Therapy: Journal of the American Art Therapy Association*, 4(2), 57–66. <https://doi.org/10.1080/07421656.1987.10758701>
- Henley, D. R. (2000). Blessings in disguise: Idiomatic expression as a stimulus in group art therapy with children. *Art Therapy: Journal of the American Art Therapy Association*, 17(4), 270–275. <https://doi.org/10.1080/07421656.2000.10129762>

- Hesselmark, E., Plenty, S., & Bejerot, S. (2014). Group cognitive behavioural therapy and group recreational activity for adults with autism spectrum disorders: A preliminary randomized controlled trial. *Autism, 18*(6), 672–683. <https://doi.org/10.1177/1362361313493681>
- Hilbuch, A., Snir, S., Regev, D., & Orkibi, H. (2016). The role of art materials in the transferential relationship: Art psychotherapists' perspective. *The Arts in Psychotherapy, 49*, 19–26. <https://doi.org/10.1016/j.aip.2016.05.011>
- Hillman, H. (2018). Child-centered play therapy as an intervention for children with autism: A literature review. *Journal of Play Therapy, 27*(4), 198–204. <https://doi.org/10.1037/pla0000083>
- Hinz, L. D. (2009). *Expressive Therapies Continuum: A framework for using art in therapy*. Routledge.
- Hoffmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy Resources, 36*, 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Holaday, B. (2012). History of autism. *The South Carolina Nurse, 19*(2), 12–13.
- Hölzel, B. L., Lazar, S. W., Gard, T., Schuman-Olivier, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science, 6*(6), 537–559. <https://doi.org/10.1177/1745691611419671>
- Homer, E. S. (2015). Piece work: Fabric collage as a neurodevelopmental approach to trauma treatment. *Art Therapy: Journal of the American Art Therapy Association, 32*(1), 20–26. <https://doi.org/10.1080/0742/656.2015.992824>

- Homeyer, L. E., & Morrison, M. O. (2008). Play therapy: Practice, issues, and trends. *American Journal of Play*, 1(2), 210–228.
- Hourston, S., & Atchley, R. (2017). Autism and mind-body therapies: A systematic review. *The Journal of Alternative and Complementary Medicine*, 23(5), 331–339.
<https://doi.org/10.1089/acm.2016.0336>
- Howe, F. E. J., & Stagg, S. D. (2016). How sensory experiences affect adolescents with an autistic spectrum condition within the classroom. *Journal of Autism and Developmental Disorders*, 46, 1656–1668. <https://doi.org/10.1007/s10803-015-2693>
- Hwang, Y.-S., Kearney, P., Klieve, H., Lang, W., & Roberts, J. (2015). Cultivating mind: Mindfulness interventions for children with autism spectrum disorder and problem behaviours, and their mothers. *Journal of Child and Family Studies*, 24, 3093–3106.
<https://doi.org/10.1007/s10826-015-0114-x>
- Iacoboni, M., Molnar-Szakacs, I., Gallese, V., Buccino, G., Mazziotta, J. C., & Rizzolatti, G. (2005). Grasping the intentions of others with one's own mirror neuron system. *PLoS Biology*, 3(3), Article e79. <https://doi.org/10.1371/journal.pbio.0030079>
- Itier, R. J., & Batty, M. (2009). Neural bases of eye and gaze processing: The core of social cognition. *Neuroscience and Biobehavioral Reviews*, 33, 843–863.
<https://doi.org/10.1016/j.neubiorev.2009.02.004>
- Jaarsma, P. (2013). Cultivation of empathy in individuals with high-functioning autism spectrum disorder. *Ethics and Education*, 8(3), 290–300.
<https://dx.doi.org/10.1080/17449642.2013.878514>
- Jensen, V. K., & Sinclair, L. V. (2002). Treatment of autism in young children: Behavioral intervention and applied behavior analysis. *Infants and Young Children*, 14(4), 42–52.

- Jordan, C. J., & Caldwell-Harris, C. L. (2012). Understanding differences in neurotypical and autism spectrum special interests through internet forums. *Intellectual and Developmental Disabilities, 50*(5), 391–402. <https://doi.org/10.1352/1934-9556-50.5.391>
- Kabat-Zinn, J. (2005). *Coming to our senses*. Hyperion.
- Kana, R. K., Keller, T. A., Cherkassky, V. L., Minshew, N. J., & Just, M. A. (2006). Sentence comprehension in autism: Thinking in pictures with decreased functional connectivity. *Brain, 129*(9), 2484–2493. <https://doi.org/10.1093/brain/awl164>
- Kanner, L. (1949). Problems of nosology and psychodynamics of early infantile autism. *American Journal of Orthopsychiatry, 19*(3), 416–426.
- Kapitan, L. (2018). *Introduction to art therapy research* (2nd ed.). Routledge.
- Kapitan, L. (2013). Art therapy's sweet spot between art, anxiety, and the flow experience. *Art Therapy: Journal of the American Art Therapy Association, 30*(2), 54–55. <https://doi.org/10.1080/07421656.2013.789761>
- Karjalainen, L., Râstam, M., Paulson-Karlsson, G., & Wentz, E. (2019). Do autism spectrum disorder and anorexia nervosa have some eating disturbances in common? *European Child & Adolescent Psychiatry, 28*(1), 69–78. <https://doi.org/10.1007/s00787-018-1188-y>
- Karst, J. S., Van Hecke, A. V., Carson, A. M., Stevens, S., Schohl, K., & Dolan, B. (2015). Parent and family outcomes of PEERS: A social skills intervention for adolescents with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 45*, 752–765. <https://doi.org/10.1007/s10803-014-2231-6>
- Kaslow, N. J. & Eicher, V. W. (1988). Body image therapy: A combined creative arts therapy and verbal psychotherapy approach. *The Arts in Psychotherapy, 15*, 177–188.

- Kearney, A. J. (2015). *Understanding applied behavior analysis: An introduction to ABA for parents, teachers, and other professionals* (2nd ed.). Jessica Kingsley Publishers.
- Kearns, D. (2004). Art therapy with a child experiencing sensory integration difficulties. *Art Therapy: Journal of the American Art Therapy Association*, 21(2), 95–101.
<https://doi.org/10.1080/07421656.2004.10129551>
- Keenan-Mount, R., Albrecht, N. J., & Waters, L. (2016). Mindfulness-based approaches for young people with autism spectrum disorder and their caregivers: Do these approaches hold benefits for teachers? *Australian Journal of Teacher Education*, 41(6), 67–86.
<https://doi.org/10.14221/ajte.2016v41n6.5>
- Kiep, M., Spek, A. A., & Hoeben, L. (2014). Mindfulness-based therapy in adults with an autism spectrum disorder: Do treatment effects last? *Mindfulness*, 6(3), 637–644.
<https://doi.org/10.1007/s12671-014-0299-x>
- Kim, S. H., & Hamann, S. (2007). Neural correlates of positive and negative emotion regulation. *Journal of Cognitive Neuroscience*, 19(5), 776–798.
- Klapwijk, E. T., Aghajani, M., Colins, O. F., Marijnissen, G. M., Popma, A., van Lang, N. D. J., van der Wee, N. J. A., & Vermeiren, R. R. J. M. (2016). Different brain responses during empathy in autism spectrum disorder versus conduct disorder and callous-unemotional traits. *The Journal of Child Psychology and Psychiatry*, 57(6), 737–747.
<https://doi.org/10.1111/jcpp.12498>
- Koppelman, R. (1984). Hand puppetry with a chronic psychiatric population. *The Arts in Psychotherapy*, 11, 283–288.
- Kreslins, A., Robertson, A. E., & Melville, C. (2015). The effectiveness of psychosocial interventions for anxiety in children and adolescents with autism spectrum disorder: A

- systematic review and meta-analysis. *Child and Adolescent Psychiatry and Mental Health*, 9(22), 1–12. <https://doi.org/10.1186/s13034-015-0054-7>
- Kuhaneck, H. M., & Britner, P. A. (2013). A preliminary investigation of the relationship between sensory processing and social play in autism spectrum disorder. *OTJR: Occupation, Participation and Health*, 33(3), 159–167. <https://doi.org/10.3928/15394492-20130614-04>
- Lamm, C., & Majdandžić, J. (2015). The role of shared neural activations, mirror neurons, and morality in empathy—A critical comment. *Neuroscience Research*, 90, 15–24.
- Lang, R., Regeister, A., Lauderdale, S., Ashbaugh, K., & Haring, A. (2010). Treatment of anxiety in autism spectrum disorders using cognitive behavior therapy: A systematic review. *Developmental Neurorehabilitation*, 13(1), 53–63. <https://doi.org/10.3109/17518420903236288>
- Laugeson, E. A., & Park, M. N. (2014). Using a CBT approach to teach social skills to adolescents with autism spectrum disorder and other social challenges: The PEERS method. *Journal of Rational-Emotive & Cognitive Behavior Therapy*, 32(1), 84–97. <https://doi.org/10.1007/s10942-014-0181-8>
- Laurent, A. C., & Gorman, K. (2018). Development of emotion self-regulation among young children with autism spectrum disorders: The role of parents. *Journal of Autism and Developmental Disorders*, 48, 1249–1260. <https://doi.org/10.1007/s10803-017-3430-8>
- Lecavalier, L. (2006). Behavioral and emotional problems in young people with pervasive developmental disorders: Relative prevalence, effects of subject characteristics, and empirical classification. *Journal of Autism and Developmental Disorders*, 36, 1101–1114. <https://doi.org/10.1007/s10803-006-0147-5>

- Leichsenring, F., Hiller, W., Weissberg, M., & Leibing, E. (2006). Cognitive-behavioral therapy and psychodynamic psychotherapy: Techniques, efficacy, and indications. *American Journal of Psychotherapy*, 60(3), 233–259.
- Leone, L. (2018). *Crafting change: Craft activism and community-based art therapy* [Doctoral dissertation, Mount Mary University].
- Lichtenstein, P., Carlström, E., Råstam, M., Gillberg, C., & Anckarsäter, H. (2010). The genetics of autism spectrum disorders and related neuropsychiatric disorders in childhood. *American Journal of Psychiatry*, 167(11), 1357–1363.
- Light, C. (1996). *The way of the doll*. Chronicle Books.
- Lovaas Institute (2019). *Who is it most suitable for?* <http://www.lovaas.com/approach-suitable.php>
- Lu, L., Petersen, F., Lacroix, L., & Rousseau, C. (2010). Stimulating creative play in children with autism through sandplay. *The Arts in Psychotherapy*, 37, 56–64. <https://doi.org/10.1016/j.aip.2009.09.003>
- Maddox, B. B., Miyazaki, Y., & White, S. W. (2017). Long-term effects of CBT on social impairment in adolescents with ASD. *Journal of Developmental Disorders*, 47, 3872–3882. <https://doi.org/10.1007/s10803-016-2779-4>
- Magnée, M. J.C., de Gelder, B., van England, H., & Kemner, C. (2011). Multisensory integration and attention in autism spectrum disorder: Evidence from event-related potentials. *PLoS ONE*, 6(8), e24196. <https://doi.org/10.1371/journal.pone.0024196>
- Mahler, K. (2015). *Interoception: The eighth sensory system: Practical solutions for improving self-regulation, self-awareness and social understanding*. AAPC Publishing.
- Malchiodi, C. A. (Ed.). (2012). *Handbook of art therapy* (2nd ed.). The Guilford Press.

- Malhotra, B. (2019). Art therapy with puppet making to promote emotional empathy for an adolescent with autism. *Art Therapy: Journal of the American art Therapy Association*, 36(4), 183–191. <https://doi.org/10.1080/07421656.2019.1645500>
- Markel, M. (2000). *Cornhusk, silk, and wishbones: A book of dolls from around the world*. Houghton Mifflin Harcourt.
- Marsh, L. E., & Hamilton, F. de C. (2011). Dissociation of mirroring and mentalizing in autism. *NeuroImage*, 56, 1511–1519. <https://doi.org/10.1016/j.neuroimage.2011.02.003>
- Martin, N. (2008). Assessing portrait drawings created by children and adolescents with autism spectrum disorder. *Art Therapy: Journal of the American Art Therapy Association*, 25(1), 15–23. <https://doi.org/10.1080/07421656.2008.10129348>
- Martin, N. (2009). Art therapy and autism: Overview and recommendations. *Art Therapy: Journal of the American Art Therapy Association*, 26(4), 187–190. <https://doi.org/10.1080/07421656.2009.10129616>
- Martinovich, J. (2006). *Creative expressive activities and Asperger's syndrome*. Jessica Kingsley Publishers.
- Mash, L. E., Schauder, K. B., Cochran, C., Park, S., & Cascio, C. J. (2017). Associations between interoceptive cognition and age in autism spectrum disorder and typical development. *Journal of Cognitive Education and Psychology*, 16(1), 23–37. <https://doi.org/10.1891/1945-8959.16.1.23>
- Masi, A., DeMayo, M. M., Glozier, N., & Guastella, A. J. (2017). An overview of autism spectrum disorder, heterogeneity and treatment options. *Neuroscience Bulletin*, 33(2), 183–193. <https://doi.org/10.1007/s12264-017-0100-y>

- McPartland, J.C., & Pelphrey, K. A. (2012). The implications of social neuroscience for social disability. *Journal of Autism and Developmental Disorders*, 42, 1256–1262.
<https://doi.org/10.1007/s10803-012-1514-z>
- Miller, E., Nickel, R., & Miller, K. (2008). *The girl who spoke with pictures: Autism through art*. Jessica Kingsley Publishers.
- Mitchell, G. (2014). Use of doll therapy for people with dementia: An overview. *Nursing Older People*, 26(4), 24–26. <https://doi.org/10.7748/nop2014.04.26.4.24.e568>
- Mitchell, G., & O'Donnell, H. (2013). The therapeutic use of doll therapy in dementia. *British Journal of Nursing*, 22(6), 329–334.
- Mitrani, J. (2010). Minding the gap between neuroscientific and psychoanalytic understanding of autism. *Journal of Child Psychotherapy*, 36(3), 240–258.
<https://doi.org/10.1080/0075417X.2010.524774>
- Molnar-Szakacs, I., Wang, M. J., Laugeson, E. A., Overy, K., Wu, W. L., & Piggot, J. (2009). Autism, emotion recognition and the mirror neuron system: The case of music. *McGill Journal of Medicine*, 12(2), 87–98.
- Monk, C. S., Weng, S.-J., Wiggins, J. L., Kurapati, N., Louro, H. M. C., Carrasco, M., Maslowsky, J., Risi, S., & Lord, C. (2010). Neural circuitry of emotional face processing in autism spectrum disorders. *Journal of Psychiatry and Neuroscience*, 35(2), 105–114.
<https://doi.org/10.1503/jpn.090085>
- Moore, B. A. (2013). Propensity for experiencing flow: The roles of cognitive flexibility and mindfulness. *The Humanistic Psychologist*, 41(4), 319–332.
<https://doi.org/10.1080/08873267.2013.820954>

- Moree, B. N., & Davis, T. E. (2010). Cognitive-behavioral therapy for anxiety in children diagnosed with autism spectrum disorders: Modification trends. *Research in Autism Disorders, 4*, 346–354. <https://doi.org/10.1016/j.rasd.2009.10.015>
- Mundkur, M. (2005). Neuroplasticity in children. *Indian Journal of Pediatrics, 72*(10), 855–857.
- Nadeau, J., Sulkowski, M. L., Ung, D., Wood, J. J., Lewin, A. B., Murphy, T. K., Ehrenreich May, J., & Storch, E. A. (2011). Treatment of comorbid anxiety and autism spectrum disorders. *Neuropsychiatry, 1*(6), 567–578. <https://doi.org/10.2217/npv.11.62>
- Nakamura, J., & Csikszentmihalyi, M. (2005). The concept of flow. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 89–105). Oxford University Press.
- Newschaffer, C. J., Croen, L. A., Daniels, J., Giarelli, E., Grether, J. K., Levy, S. E., Mandell, D. S., Miller, L. A., Pinto-Martin, J., Reaven, J., Reynolds, A. M., Rice, C. E., Schendel, D., & Windham, G. C. (2007). The epidemiology of autism spectrum disorders. *Annual Review of Public Health, 28*, 235–258. <https://doi.org/10.1146/annurev.publhealth.28.021406.144007>
- Olivetti, K. (2017). Weaving: A conversation with Susan Gangsei. *Jung Journal, 11*(3), 116–124. <https://doi.org/10.1080/19342039.2017.1330643>
- Onofrio, E. N. (2018). *Not just a doll: An intervention for elementary school-aged children affected by grief* [Master's thesis, Concordia University]. <https://pdfs.semanticscholar.org/9f9f/1b0b756ba3a7d564a1126f071fd3ec10e740.pdf>
- Osborne, H., Strokes, G., & Simpson, J. (2010). A psychosocial model of parent fixation in people with dementia: The role of personality and attachment. *Aging & Mental Health, 14*(8), 928–937. <https://doi.org/10.1080/13607863.2010.501055>

- Overley, L. C., Snow, M. S., Mossing, S. L., Degges-White, S., & Holmes, K. P. (2018). Exploring the experiences of play therapists working with children diagnosed with autism. *International Journal of Play Therapy*, 27(1), 14–24.
<https://doi.org/10.1037/pla0000059>
- Owren, T., & Stenhammer, T. (2013). Neurodiversity: Accepting autistic difference. *Learning Disability Practice*, 16(4), 32–37.
- Ozonoff, S. (2012). Editorial perspective: Autism spectrum disorders in *DSM 5*—An historical perspective and the need for change. *Journal of Child Psychology and Psychiatry*, 53(10), 1092–1094. <https://doi.org/10.1111/j.1469-7610.2012.02614x>
- Pallaro, P. (1996). Self and body-self: Dance/movement therapy and the development of object relations. *The Arts in Psychotherapy*, 23(2), 113–119.
- Pasco, G. (2011). The diagnosis and epidemiology of autism. *Tizard Learning Disability Review*, 16(4), 5–19. <https://doi.org/10.1108/13595471111172813>
- Puleo, C. M., & Kendall, P. C. (2011). Anxiety disorders in typically developing youth: Autism spectrum symptoms as a predictor of cognitive-behavioral treatment. *Journal of Autism and Developmental Disorders*, 41, 275–286. <https://doi.org/10.1007/s10803-010-1047-2>
- Radhakrishna, S., Nagarathna, R., & Nagendra, H. R. (2010). Integrated approach to yoga therapy and autism spectrum disorders. *Journal of Ayurveda and Integrative Medicine*, 1(2), 120–124. <https://doi.org/10.4103/0975-9476.65089>
- Rao, P., Beidel D. C., & Murray M. J. (2008). Social skills interventions for children with Asperger's syndrome or high-functioning autism: A review and recommendations. *Journal of Autism and Developmental Disorders*, 38, 353–361.
<https://doi.org/10.1007/s10803-007-0402-4>

- Raoufi, M. (2018). *Flow, creativity and autism spectrum disorder: Creatively supporting developmental and pro-social behavior in children with ASD* [Master's thesis, Lesley University]. Expressive Therapies Capstone Theses. https://digitalcommons.lesley.edu/cgi/viewcontent.cgi?article=1016&context=expressive_theses
- Raymaekers, R., Wiersema, J. R., & Roeyers, H. (2009). EEG study of the mirror neuron system in children with high functioning autism. *Brain Research, 1304*(4), 113–121. <https://doi.org/10.1016/j.brainres.2009.09.068>
- Reynolds, F. (2000). Managing depression through needlecraft, creative activities: A qualitative study. *The Arts in Psychotherapy, 27*(2), 107–114. [https://doi.org/10.1016/S0197-4556\(99\)00033-7](https://doi.org/10.1016/S0197-4556(99)00033-7)
- Richey, J. A., Damiano, C. R., Sabatino, A., Rittenberg, A., Petty, C., Bizzell, J., Voyvodic, J., Heller, A. S., Coffman, M. C., Smoski, M., Davidson, R. J., & Dichter, G. S. (2015). Neural mechanisms of emotion regulation in autism spectrum disorder. *Journal of Autism and Developmental Disorders, 45*, 3409–3423. <https://doi.org/10.1007/s10803-015-2359-z>
- Ridderinkhof, A., de Bruin, E. I., Blom, R., & Bögels, S. M. (2018). Mindfulness-based program for children with autism spectrum disorder and their parents: Direct and long-term improvements. *Mindfulness, 9*, 773–791. <https://doi.org/10.1007/s12671-017-0815-x>
- Riquelme, I., Hatem, S. M., & Montoya, P. (2016). Abnormal pressure pain, touch sensitivity, proprioception, and manual dexterity in children with autism spectrum disorders. *Neural Plasticity*, Article 1723401. <https://doi.org/10.1155/2016/1723401>

- Robson, B. (2013). Autism spectrum disorder: A review of the current understanding of pathophysiology and complementary therapies in children. *Australian Journal of Herbal Medicine*, 25(3), 128–137.
- Rodgers, J., Glod, M., Connolly, B., & McConarchie, H. (2012). The relationship between anxiety and repetitive behaviours in autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 42, 2404–2409. <https://doi.org/10.1007/s10803-012-1531-y>
- Rogers, C. R. (1961). *On becoming a person*. Houghton Mifflin Company.
- Rogers, S. J. (2000). Interventions that facilitate socialization in children with autism. *Journal of Autism and Developmental Disorders*, 30(5), 399–409.
- Rogers, S. J., & Orzonoff, S. (2005). Annotation: What do we know about sensory dysfunction in autism? A critical review of the empirical evidence. *Journal of Child Psychology and Psychiatry*, 46(12), 1255–1268. <https://doi.org/10.1111/j.1469-7610.2005.01431x>
- Rosen, M. Pitre, R., & Johnson, D. R. (2016). Developmental transformations art therapy: An embodied, interactional approach. *Art Therapy: Journal of the American Art Therapy Association*, 33(4), 195–202. <https://doi.org/10.1080/07421656.2016.1229514>
- Rutgers, A. H., van IJzendoorn, M. H., Bakermans-Kranenburg, M. J., Swinkels, S. H. N., van Daalen, E., Dietz, C., Naber, F. B. A., Buitelaar, J. K., & van Engeland, H. (2007). Autism, attachment and parenting: A comparison of children with autism spectrum disorder, mental retardation, language disorder, and non-clinical children. *Journal of Abnormal Child Psychology*, 35(5), 859–870. <https://doi.org/10.1007/s10802-007-9139-y>
- Saldaña, J. (2016). *The coding manual for qualitative researchers*. Sage Publications.

- Salter, K., Beamish, W., & Davies, M. (2016). The effects of child-centered play therapy (CCPT) on the social and emotional growth of young Australian children with autism. *International Journal of Play Therapy*, 25(2), 78–90. <https://doi.org/10.1037/pla0000012>
- Samson, A. C., Wells, W. M., Phillips, J. M., Hardan, A. Y., & Gross, J. J. (2015). Emotion regulation in autism spectrum disorder: Evidence from parent interviews and children's daily diaries. *The Journal of Child Psychology and Psychiatry*, 56(8), 903–913. <https://doi.org/10.1111/jcpp.12370>
- Scharoun, S. M., Reinders, N. J., Bryden, P. J., & Fletcher, P. C. (2014). Dance/movement therapy as an intervention for children with autism spectrum disorders. *American Journal of Dance Therapy*, 36, 209–228. <https://doi.org/10.1007/s10465-014-9179-0>
- Schweizer, C., Spreen, M., & Knorth, E. J. (2017). Exploring what works in art therapy with children with autism: Tacit knowledge of art therapists. *Art Therapy: Journal of the American Art Therapy Association*, 34(4), 183–191. <https://doi.org/10.1080/07421656.2017.1392760>
- Seskin, L., Feliciano, E., Tippy, G., Yedloutschnig, R., Sossin, M. K., & Yasik, A. (2010). Attachment and autism: Parental attachment representations and relational behaviors in the parent-child dyad. *Journal of Abnormal Child Psychology*, 38, 949–960. <https://doi.org/10.1007/s10802-010-9417-y>
- Shapiro, S. L., & Carlson, L. E. (2009). *The art and science of mindfulness: Integrating mindfulness into psychology and the helping professions*. American Psychological Association.
- Shin, J. H. (2015). Doll therapy. *Journal of Psychosocial Nursing*, 53(1), 13–18. <https://doi.org/10.3928/02793695-20141218-03>

- Shonin, E., Van Gordon, W., & Griffith, M. D. (2013). Mindfulness-based interventions: Towards mindful clinical integration. *Frontiers in Psychology*, 4, Article 194.
<https://doi.org/10.3389/fpsyg.2013.00194>
- Siegel, D. (2012). *The developing mind: How relationships and the brain interact to shape who we are*. The Guilford Press.
- Silberman, S. (2015). *NeuroTribes: The legacy of autism and the future of neurodiversity*. Avery.
- Simpson, R. L. (2001). ABA and students with autism spectrum disorders: Issues and considerations for effective practice. *Focus on Autism and Other Developmental Disabilities*, 16(2), 68–71.
- Singer, T., Seymour, B., O'Doherty, J., Kaube, H., Dolan, R. J., & Frith, C. D. (2004). Empathy for pain involves the affective but not sensory components of pain. *Science*, 303(5661), 1157–1162. <https://doi.org/10.1126/science.1093535>
- Smith, A. (2009). The empathy imbalance hypothesis of autism: A theoretical approach to cognitive and emotional empathy in autistic development. *Psychological Record*, 59, 273–294.
- Smith, I. C., Reichow, B., & Volkmar, F. R. (2015). The effects of *DSM-5* criteria on number of individuals diagnosed with autism spectrum disorder: A systemic review. *Journal of Autism and Developmental Disorders*, 45, 2541–2552. <https://doi.org/10.1007/s10803-015-2423-8>
- So, J., & Leung, S.-M. (2013). Mummification in a Chinese patient with grief: A morbid symptom or a cultural practice? *East Asian Archives of Psychiatry*, 23(4), 164–167.

- Stace, S. M. (2014). Therapeutic doll making in art psychotherapy for complex trauma. *Art Therapy: Journal of the American Art Therapy Association*, 31(1), 12–20.
<https://doi.org/10.1080/07421656.2014.873689>
- Stallings, J. W. (2019). *Building the neurodiversity bridge: A grounded theory examination of popular culture perseverations in art therapy with individuals with autism spectrum disorders* [Doctoral dissertation, Mount Mary University].
https://my.mtmary.edu/ICS/icsfs/Stallings%2C_Jessica__1103613279.pdf?target=8c631568-f358-497b-bcea-f95341cb5af8
- Steinhardt, L. (1994). Creating the autonomous image through puppet theatre and art therapy. *The Arts in Psychotherapy*, 21(3), 205–218. [https://doi.org/10.1016/0197-4556\(94\)90050-7](https://doi.org/10.1016/0197-4556(94)90050-7)
- Sturmey, P. (2006). On some recent claims for the efficacy of cognitive therapy for people with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 19, 109–117. <https://doi.org/10.1111/j.1468-3148.2006.00301.x>
- Sukhodolsky, D. G., Bloch, M. H., Panza, K. E., & Reichow, B. (2013). Cognitive-behavioral therapy for anxiety in children with high-functioning autism: A meta-analysis. *Pediatrics*, 132(5), 1341–1350. <https://doi.org/10.1542/peds.2013-1193>
- Sullivan, G. (2005). *Art practice as research: Inquiry in the visual arts*. Sage Publications.
- Sundler, A.J., Lindberg, E., Nilsson, C., & Palmér, L. (2019). Qualitative thematic analysis based on descriptive phenomenology. *Nursing Open*, 00, 1-7. <https://doi.org/10.1002/nop2.275>
- Sze, K. M., & Wood, J. J. (2007). Cognitive behavioral treatment of comorbid anxiety disorders and social difficulties in children with high-functioning autism: A case report. *Journal of Contemporary Psychotherapy*, 37, 133–143. <https://doi.org/10.1007/s10879-007-9048-y>

- Thomsen, D. K., Mehlsen, M. Y., Olesen, F., Hokland, M., Viidik, A., Avlund, K., & Zachariae, R. (2004). Is there an association between rumination and self-reported physical health? A one-year follow-up in a young and an elderly sample. *Journal of Behavioral Medicine*, 27(3), 215–231. <https://doi.org/10.1023/b:jobm.0000028496.41492.34>
- Tidmarsh, L., & Volkmar, F. R. (2003). Diagnosis and epidemiology of autism spectrum disorders. *The Canadian Journal of Psychiatry*, 48(8), 517–525.
- Topp, J. (2005). *The uses of doll making in art therapy with children: Four case studies* [Unpublished master's thesis]. Concordia University.
- U. S. Education for All Handicapped Children Act of 1975, Pub. L. No. 94-142, 89 Stat. 773.
- Vagle, M. D. (2018). *Crafting phenomenological research*. Routledge.
- van der Kolk, B. A. (2014). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Viking Penguin.
- Van Hess, V., Moyson, T., & Roeyers, H. (2015). Higher education experiences of students with autism spectrum disorder: Challenges, benefits and support needs. *Journal of Autism and Developmental Disorders*, 45, 1673–1688. <https://doi.org/10.1007/s10803-014-2324-2>
- Van Lith, T., Stallings, J. W., & Harris, C. E. (2017). Discovering good practice for art therapy with children who have autism spectrum disorder: The results of a small scale survey. *The Arts in Psychotherapy*, 54, 78–84. <https://doi.org/10.1016/j.aip.2017.01.002>
- van Manen, M. (1990). *Researching lived experience*. State University of New York Press.
- Van Manen, M. (2014). *Phenomenology of practice*. Routledge.
- Van Steensel, F. J. A., & Bögels, S. M. (2015). CBT for anxiety disorders in children with and without autism spectrum disorders. *Journal of Consulting and Clinical Psychology*, 83(3), 512–523. <https://doi.org/10.1037/a0039108>

- Vollmann, S. (1997). Doll making and play: A therapeutic modality for an adolescent boy with gender identity disorder. *Pratt Institute Creative Arts Therapy Review*, 8, 76–86.
- Walker, N. (2014). Neurodiversity: Some basic terms and definitions. *Neurocosmopolitanism*.
<http://neurocosmopolitanism.com/neurodiversity-some-basic-terms-definitions/>
- Watling, R. L., & Dietz, J. (2007). Immediate effect of Ayres's sensory integration-based occupational therapy intervention on children with autism spectrum disorder. *American Journal of Occupational Therapy*, 61(5), 574–583. <https://doi.org/10.5014/ajot.61.5.574>
- Welland, M. (2011). *Exploring experience through dolls: How three women living with cancer used doll making to tell their stories* [Unpublished master's thesis]. Concordia University.
- Welsh, J. P., Ahn, E. S., & Placantonakis, D. G. (2005). Is autism due to brain desynchronization? *International Journal of Developmental Neuroscience*, 23, 253–263.
<https://doi.org/10.1016/j.ijdevneu.2004.09.002>
- White, M., & Epston, D. (1990). *Narrative means to therapeutic ends*. Norton & Company.
- Wicks, P. G., & Rippin, A. (2010). Art as experience: An inquiry into art and leadership using dolls and doll-making. *Leadership*, 6(3), 259–278.
<https://doi.org/10.1177/1742715010368767>
- Wigham, S., Rodgers, J., South, M., McConachie, H., & Freeston, M. (2015). The interplay between sensory processing abnormalities, intolerance of uncertainty, anxiety and restricted and repetitive behaviours in autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 45, 943–952. <https://doi.org/10.1007/s10803-014-2248-x>

- Wing, L., Gould, J., & Gillberg, C. (2011). Autism spectrum disorders in the *DSM-V*: Better or worse than the *DSM-IV*? *Research in Developmental Disabilities*, 32, 768–773.
<https://doi.org/10.1016/j.ridd.2010.11.003>
- Winnicott, D. W. (1971). *Playing and reality*. Routledge.
- Winter-Messiers, M. (2007). From tarantulas to toilet brushes: Understanding the special interest areas of children and youth with Asperger syndrome. *Remedial and Special Education*, 28(3), 140–152.
- Wisconsin Department of Health Services Autism and other Developmental Disabilities Treatment Intervention Advisory Committee (2015). *Treatment Intervention Advisory Committee review and determination*. <https://www.dhs.wisconsin.gov/tiac/arttherapy.pdf>
- Wolff, S. (2004). The history of autism. *European Child & Adolescent Psychiatry*, 13(4), 201–208. <https://doi.org/10.1007/s00787-004-0363-5>
- Wood, R. & Milton, D. (2018). Reflections on the value of autistic participation in a tri-national teacher-training project through discourses of acceptance, othering and power. *British Journal of Special Education*, 45(2), 157–171.
- Yi, C. S. (2010). From imperfect to I am perfect: Reclaiming the disabled body through making body adornments in art therapy. In C. H. Moon (Ed.), *Materials and media in art therapy: Critical understandings of diverse artistic vocabularies* (pp. 103–117). Routledge.
- Young, R. L., & Rodi, M. L. (2014). Redefining autism spectrum disorder using *DSM-5*: The implications of the proposed *DSM-5* criteria for autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 44, 758–765. <https://doi.org/10.1007/s10803-013-1927-3>

Zachor, D. A., & Ben-Itzhak, E. (2014). The relationship between clinical presentation and unusual sensory interests in autism spectrum disorders: A preliminary investigation.

Journal of Autism and Developmental Disorders, 44, 229–235.

<https://doi.org/10.1007/s10803-013-1867-y>

Appendix

Informed Consent Form

Dear _____,

You are invited to be in my research study. I am studying how people use art and hand-made dolls to help them talk or to share what they are thinking. This letter will help you decide whether you want to be a part of my study or not. You can change your mind at any time. You do not have to do anything you don't want to. Deciding not to be in my study won't keep you from having art therapy and our sessions will continue like before. We can always decide to do something other than hand-made dolls in your therapy.

To do my study, I will ask you to create a doll using a blank cloth doll that you can paint and decorate however you like. After you make the doll, I will ask you to tell me a story about it. If you have trouble telling the story, I will help you by making suggestions (such as where the doll lives or what the doll does each day) so that you feel comfortable talking about it. I also will write down things I notice while you are making or talking about your doll.

After our therapy session, I will look for ideas you shared that help you with your therapy goals. I will write these ideas down to help others understand whether doll making is helpful in art therapy, and pictures of your doll will be used in my report. But I will not put your real name in my report or on your pictures. That way no one has to know who you are or what you said when you were in my art therapy session.

My study may help other adults on the Autism spectrum be able to have art therapy and use art to help them deal with problems. If you decide to be in my study you will be able help me tell your story and teach others about you. Other therapists, teachers, and helpers will have a better idea of why people on the spectrum need more and better services.

Signing this letter means you have decided to be in my study and will let me tell others about your work in art therapy.

I have read this letter and understand what this study is about. Any questions I had about it were answered. I know that I don't have to be in the study and can decide not to be in it at any time.

Participant

Date