Building the Neurodiversity Bridge:

A Grounded Theory Examination of Popular Culture Perseverations in Art Therapy with Individuals with Autism Spectrum Disorders

by

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Abstract

Art therapists may be unique in their ability to build a therapeutic relationship with people with Autism Spectrum Disorders (ASD). One strategy in working with individuals with ASD is to bridge the goals of therapy with clients' perseverative or repetitive interests. Art therapy literature has focused on the advantages of working visually with these clients. However, little attention has been paid to how art therapy can also integrate these clients' special interests from popular culture and adapt them into personally meaningful symbols and metaphors that help individuals connect with their world.

The author sought to develop a facilitative therapeutic framework for the integration of perseverative interests derived from popular culture into art therapy using a grounded theory study that examined the role of perseverative interests in therapeutic relationships with individuals on the spectrum. Grounded theory analysis was conducted on data from art therapy clinical notes from 8 clients with an ASD diagnosis, documentary footage, and a videotaped walk-through interview with a child with ASD. The study identified 6 ways in which popular culture can function in the art therapy relationship with clientele who have autism: (a) as behavioral reward, (b) as social initiator, (c) as social facilitator, (d) as personal metaphor, (e) as anxiety mediator, and (d) as communication clarifier.

Study results were organized into a creative portfolio and website that articulates how to integrate these interests within art therapy with clients with ASD while respecting the systems within which this therapy occurs. Visit the resulting website at www.arttherapyandneurodiversity.com.

Keywords: art therapy, autism spectrum disorder (ASD), neurodiversity, neurodivergent, popular culture, perseverative interests, restricted repetitive behaviors, grounded theory

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Dedication

I dedicate this project to my clients—past, present, and future. Thank you all for helping me build a bridge to your worlds.

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CHAPTER 1: INTRODUCTION

> Those who work with autistics on a more empathic level realize that perseveration is not simply mindless repetition without significance. What is said, drawn, sung or written often holds the key to the child's salient concerns. One only need to listen seriously and see in order to partake of their struggles. (Henley, 1989, p. 53)

My research topic focused on the influences of mesosystems on the art expressions produced in art therapy with individuals on the autism spectrum. The mesosystem is an ecological construct that refers to the totality of a person's direct experiences, roles, and settings that make up the person's interactions with various microsystems in the world, such as family, school, or social group (Arnold, Lu, & Armstrong, 2012). Thus, the mesosystems involved in my study represent individuals' relationships within and across a variety of settings, both congruent and discordant with neurodivergent experiences of the world. I sought to examine how the larger influences of the mesosystem—often appearing in the perseverative interests of individuals on the spectrum as a fascination with popular culture phenomena—can provide art therapists with opportunities for relationship development and facilitate progress in therapy. My purpose was to utilize study results in developing a facilitative therapeutic framework for the integration of perseverative interests, derived from popular culture in particular, into art therapy. The resulting grounded theory contributes evidence from practice to support art therapists' intentional use of perseverative interests as relationship supports for treating individuals with autism. Acknowledging and integrating such perseverations may be key in developing these relationships and building successful art therapy interventions. Outcomes from the study included a website with materials for clinicians and other

stakeholders; one such resource is a customizable art therapy facilitative framework for working with individuals with ASD.

Significance to the Field of Art Therapy

In-depth research on how and whether art therapy is effective for individuals with autism spectrum disorder (ASD) is clearly needed. In 2015, the American Art Therapy Association called for efficacy and effectiveness research after art therapy was rejected as a valid treatment for ASD by state-controlled pay mechanisms in such places as Wisconsin and Connecticut due to lack of evidence (Betts, 2015; Wisconsin Department of Health, 2015). Therefore, the current study may be a first step in this larger agenda by contributing grounded theory for the development of an art therapy treatment model that can be tested in efficacy and effectiveness studies in the future.

Sixteen years of clinical work with individuals on the autism spectrum led me to this research topic, first as a behavioral therapist and currently as a professional art therapist. Throughout this time, I have witnessed the importance of utilizing cues from popular culture interests both in building relationships with individuals with ASD and for communicating metaphorically in the therapy process itself. The first child on the spectrum I worked with, a 3-year-old, repeatedly and obsessively acted out the "Cheeseburger Song" from *VeggieTales* videos with everyday objects such as toothpaste and toothbrushes. The symptom of perseveration, in the context of ASD, refers to specific and intense focus on an object or subject matter, such as a video game character, which may occur for a variety of reasons that include efforts to mediate sensory under- or overstimulation and to cope with anxiety (Boyd, Conroy, Richmond Mancil, Nakoa, & Alter, 2007). In the case of my 3-year-old client, the child's perseverations provided me

with an avenue for entering his world, inviting me to sing *VeggieTales* songs and play *VeggieTales* games with him in order to gain and hold his attention.

Today, I often tailor sessions that address symptoms of concern by directly leveraging the perseverations of clients with ASD, which most frequently derive from exposure to and consumption of popular culture. This research project addressed the concerns and benefits of utilizing popular culture content in therapy, which may provide an opportunity for others to better understand and support individuals with ASD, including therapists, and help ease the burden on those with ASD in advocating for change. This study provides evidence that art therapy may be uniquely able to facilitate adaptation of perseverations and popular culture references into personally meaningful metaphors and interactions.

Current Practice and Research

In surveys of the American Art Therapy Association's membership (Elkins & Deaver, 2010, 2015) only 10% to 15% of respondents indicated that they worked with individuals with diagnoses on the autism spectrum. Schweizer, Knorth, and Spreen (2014) conducted a systematic review of published research on art therapy with individuals with ASD and determined that the majority of studies have been largely theoretical, qualitative, and case study based. Case studies contribute to research that builds the evidence base but they require validation through large-scale randomized controlled studies.

Nevertheless, multiple areas of strength in art therapy with this population have been identified, particularly in the domains of cognitive growth, emotional regulation, adaptive behavioral styles (behavioral regulation, independence, and socialization), and

physical development (Betts, Harmer, & Schumelevich, 2014). A recent study by Van Lith, Stallings, and Harris (2017) provided a snapshot into art therapy treatment via a small sample of art therapists who were asked to describe their practice with individuals with ASD. These art therapists reported that their most frequent treatment goals were directed toward adaptive behavioral styles, followed by cognitive growth and emotional regulation; physical development was also mentioned as a treatment domain. The most frequently applied theories in use were humanistic/person-centered, developmental, and cognitive/behavioral, and the most popular art materials utilized were markers and modeling clay, along with other traditional art media. Participating art therapists noted the importance of providing consistency and loose structure and of following the client's lead in sessions to build the therapeutic relationship. The study also found consensus that metaphor was a powerful tool for working with individuals with ASD, particularly if it combined with the clients' particular special interests, citing a case example of a child who utilized Minecraft to advance an understanding of emotions.

Much of the existing art therapy literature describes the function of art as a relationship-building tool (see, e.g., Bragge & Fenner, 2009; Dolphin, Byers, Goldsmith, & Jones, 2014; Elkis-Abuhoff, 2009; Martin, 2008, 2009). The literature also documents sensory-based interventions that encourage self-regulation and focus (e.g., Durrani, 2014; Kearns, 2004; Kuo & Plavnick, 2015; Martin, 2009). Other art therapy publications examine emotion identification and the struggle people with ASD have in reading facial expressions (Martin, 2008; Richard, More, & Joy, 2015). Despite research emphasis in these areas of art therapy strengths, there has been little focus on the subject matter of the art created by individuals on the spectrum and how a therapist's acknowledgment of and

integration of these individuals' special interests can facilitate art therapy (see, e.g., Henley, 1989, 2018), although a small body of literature examines their use in therapy with other populations (e.g., Dunn-Snow, 1993; Potash, 2009).

Bridging Neurotypical and Neurodivergent Realities

In my experience, imagery from popular culture is unavoidable when one works with individuals on the autism spectrum. In fact, popular culture can be the most accessible way to build a bridge between those who are *neurotypical* (those whose neurocognitive functioning is considered typical) and those who are *neurodivergent* (those whose neurocognitive functioning is considered atypical; Silberman, 2015; Walker, 2014). The term *neurodiversity* refers to "the diversity of human brains and minds—the infinite variation in neurocognitive functioning within our species" (Walker, 2014, para. 6). Advocates for the neurodiversity paradigm argue that the ways people with conditions such as autism and dyslexia interact with the world are not wrong but rather just different from how neurotypical people interact with the world (Robison, 2013; Ne'eman, 2012, Walker, 2014).

When I began working with individuals on the autism spectrum in 2001, I witnessed and later explicitly encouraged interaction through popular culture imagery and play. I had long suspected value in the many conversations I'd had with neurodivergent clients about professional wrestling, *Dragon Ball Z*, Five Nights at Freddy's, *Doctor Who*, Disney everything, and so on. As a young clinician I saw value in using my firsthand understanding of some of these topics and my curiosity about others in building relationships with my preteen and adolescent clients diagnosed with autism, Asperger's and pervasive developmental disorder (all diagnoses now under the Autism Spectrum

Disorder umbrella). However, I often felt guilty about engaging in these subjects during therapy sessions as I worried that others would judge them as a waste of time at worst or tangential and off-topic at best. I spent time looking for and printing out images from online searches on these subjects to encourage my clients to engage in the art process and to spark interest in understanding that we all have likes and dislikes, some of which are shared and some of which are different. It helped that I was initially working in a recreation therapy department that required a "leisure education" component, so I could make the case that these subjects related to my clients' leisure preferences and helped them understand the preferences of other group members.

When I left that job to become an academic in higher education, I took these lessons with me. I created and implemented a pro bono art therapy social group for teens with ASD. Quickly we focused on anime and Disney. When I started working in private practice, I immediately noticed that inviting discussion of YouTube or even watching some of the videos together encouraged my clients, who were at times as young as 7 years old, to interact with me and to warm up to art making. Yet I still wondered if I was being frivolous or letting them down in some way.

Mt. Mary University's art therapy doctoral program and this dissertation project encouraged me to reexamine these concerns and to view these interactions in a different light, in consideration of the autonomy and emancipatory self-determination of my clients in these interactions and in seeing these interactions as the bridge between neurotypical and neurodivergent worlds. I have grown to respect how my clients have taught me through these interactions about themselves and how they see the world, as well as how

these interactions have helped me partner with my clients as they navigate the neurotypical world. The following are some examples of these experiences:

- An adolescent client took on the persona of Shadow the Hedgehog (the shadow persona counterpart to the title character in Sonic the Hedgehog) and used this identity as a shield against bullying and social anxiety. Rather than speaking of himself directly he utilized characters from Sonic the Hedgehog to engage in social skills practice and work through other issues he needed to address.
- A preadolescent girl who was nonverbal communicated her feelings by humming Disney songs—in particular, "Someday My Prince Will Come" when she did not want to do something.
- An adolescent boy with co-occurring selective mutism would only interact with me through the use of Avengers Legos.
- An 8-year-old client would only address his anxieties through the personas of Five Nights at Freddy's characters; attempting to address them in other ways only increased his anxiety.
- Two siblings, 8 and 9 years old, together worked through their anxieties about an abusive home and absent father through a *Star Wars* sticker collage.
- A 10-year-old boy played out violent fantasies based on video games and his own trauma history through Legos and eventually could identify the "criminals" as his father and at times himself. His play poignantly displayed the security he felt with his adoptive mother through the character of the criminal's mother who gave the criminal unconditional love in spite of what he had done.

- An adolescent client had an obsession with the Rapture (as heavily emphasized by his church and also in the popular *Left Behind* book series), providing many learning opportunities in regards to social appropriateness and friendship.
- A client related to the alien character Oh from the 2015 film *Home* as a personal symbol, acknowledging that Oh's awkwardness and social difficulties were much like his own social difficulties.
- An adolescent client dealt with the loss of his step-mother to cancer and the prospect that his sister would also die from cancer by perseverating via creating art and stories based on a video game about a nuclear apocalypse (in which a character died of cancer). When asked, he stated that the game reminded him of how he might outlive his sister.

I can think of countless other examples that involved popular culture references and media such as *Thomas the Tank Engine*, the film *Cheaper by the Dozen*, various Disney movies, singer Adam Levine, and even professional wrestling. Although all children play and it is not uncommon for neurotypical children to repeat their imaginary play adventures over and over, the difference for children on the spectrum is that they often do not invite others to interact in their imaginary play or to come into their imaginary worlds. This interaction is qualitatively different with neurodivergent children. In my experience, children with ASD will not invite others into their perseverative play or they often do not pursue others' active participation in their play, especially other children. This difference is indicative of the core social and communication symptoms of autism spectrum disorder. Whereas neurotypical children reach out on their own for social connection, a child on the spectrum often does not, or at least not in a way that is

identifiable to a neurotypical person. Despite the lack of or atypicality of social initiation, however, these interests do represent a means of connection. Clinicians can show interest in these interests, allowing them to meet clients where they are and encouraging joint attention to help build rapport and social relationships. By doing so, neurotypical clinicians can meet neurodivergent clients on their own terms rather than attempting to conform them to a neurotypical agenda.

Additionally, I have personally observed the struggle that children with autism have in meeting a typical art therapy expectation that they learn to create art using their own original imagery. Based on conversations I have had with peers and other professionals, a preference for popular culture imagery—so common among people with ASD—is viewed by some as evidence of a paucity or lack of imagination. For many art therapists and the general public, imagination is equated with an ability to create completely original content or imagery; however, with the advent of the Internet it is increasingly clear that many people (with and without ASD) express their imaginations through fan fiction (Burt, 2017) and other popular culture responses. In my own experience with individuals with ASD, I have found that popular culture references actually open up their imaginations and increase valuable access to understanding through metaphor for these clients, in a similar way as fan fiction. They often select the popular cultural figures they identify with and use their connection with those figures to communicate, self-regulate, and even integrate new skills into their behavioral repertoire. Collectively, these interests provide a way to relate to and communicate with others, which art therapists may use to build therapeutic relationship and facilitate therapeutic goals.

My clinical observations are supported by the recent book (Suskind, 2014) and documentary (R. R. Williams, 2016) entitled *Life, Animated: A Story of Sidekicks, Heroes, and Autism* that is based on a true story. The family of a young man diagnosed with ASD, Owen Suskind, discovered that he was communicating with them through what appeared to be nonpurposeful repetition of words or phrases (known as echolalia) that Owen heard from Disney movies—the animated character Iago from *Aladdin* in particular. Upon this realization, the family joined Owen in watching these movies repeatedly and speaking the dialogue to each other, eventually helping Owen to learn and utilize language independent of the echolalia. Owen's family integrated his perseverations into his schooling and therapies, and Owen thrived. After Owen's father consulted with his son's psychiatrist, he theorized that Owen's mimicking of these characters compensated for his impaired inner speech (Suskind, 2014). Owen's echolalia and subsequent elaborations of what his favorite Disney characters might say allowed him to better process events and see them from different perspectives, in a way that he was unable to do without the characters.

Although this is just one case, in the context of my 16 years of experience working with individuals on the spectrum, Owen Suskind's story affirms and provides further evidence of the importance of popular culture references in treatment and everyday life. Engagement in the individual's perseverations is a strategy, as seen in the example of Owen, of bridging worlds to access social relationship and build understanding. Furthermore, it emphasizes the necessity of art therapists truly meeting clients where they are, understanding their different neurological needs, and working within the communication channels their clients offer.

These observations are also supported in Henley's 1989 case study regarding Nadia Chomyn, a well-known autistic artist, and in his memoir about working with individuals on the spectrum (Henley, 2018). He utilized Chomyn's interest in print catalogs to build rapport with her and later to build rapport with other clients through listening to their interests in anime and video games while praising their art products based on these interests (Henley, 2018). As a pioneering art therapist with this population, Henley supported the use of perseverations in treatment, recognizing that they often were related to popular culture and could be used to build rapport and encourage participation in art therapy.

Chomyn's was a case that originally was made famous by the researcher Selfe (1977). Selfe conducted a 3-year longitudinal study of Chomyn beginning when she was 3 years old and diagnosed with autism and severe mental retardation. Chomyn was also an "artistic savant" who had developed an adult-like artistic style and drew horses repeatedly, as well as other farm animals, seemingly inspired by her favorite storybook. Her artistic ability surfaced while her mother was ill and later regressed after her mother's death. Henley (1989) worked with Chomyn as an adult with the goal of reinforcing her previous interest in art and to see if her artistic ability would resurface. Henley theorized that Chomyn had utilized art to self-soothe during her mother's illness and suggested that the art and materials served as a sort of transitional object for her.

Henley (1989) worked with the nearly 30-year-old Chomyn in her home. He reported that she initially appeared upset by his presence; however, after he sat in her house for a time she grew excited, speaking in echolalia about her contemporary perseveration, which Henley described as the Sears catalog and saw as her attempt to

communicate. With this realization, he engaged with Chomyn by encouraging her to show him her catalogs. The next day, Henley continued with the joint catalog viewing. After a short period, he provided Chomyn with paper and black felt tip pens. Because she initially grew agitated when her father, who was present, also encouraged her to draw, Henley asked her father to leave. Henley sat across the room from Chomyn as she explored the materials and scribbled. He slowly moved closer until she tolerated him sitting at the table with her. She then became increasingly engaged in the art making, initially filling paper with scribbles but working up to making representative images. Over subsequent days, Henley showed her the storybook she had been inspired by as a young child and her previous drawings, and encouraged her to replicate them. She did so, and although her artistic style was not as mature as it had once been, she was able to create pseudo-naturalistic images.

Henley (1989) noted that Chomyn had engaged in extensive cognitive and behavioral therapies after the death of her mother and theorized that this treatment actually may have facilitated her artistic regression because it "fail[ed] to support her during a time of personal crisis" (p. 52). He postulated that if Chomyn had been provided with art therapy, this may have helped better facilitate her development both affectively and cognitively. Henley observed that in this case and others like it, "the process of making art should be seen not simply as an elaborate symptom as but as an adaptive, positive means of self-expression that has value as a conduit toward both creative and mental growth" (p. 55). He conjectured that art therapists can tap into these perseverations to provide interventions that are minimally invasive.

The Need for Practice-Based Research Knowledge

Art therapy clearly needs more research focused on treating individuals with autism spectrum disorder. There are approximately two dozen published studies in the art therapy literature on art therapy with autism, but none of them specifically explores the importance of popular culture metaphors with this population or the influence such material has across a broad scope of social interactions. Popular culture and other perseverative material, which can appear to the uninformed observer as mindless obsession, provide a valuable avenue for relationship building and communication. Engagement with clients in this way acknowledges that autism is a different way of thinking and interacting with the world and not an illness to be cured (Silberman, 2015).

Art therapy's emphasis on visual language and use of metaphor makes it a particularly useful approach for building bridges between the neurotypical and neurodiverse worlds. Neuroscientists Kana, Keller, Cherkassky, Minshew, and Just (2006) identified some base support for art therapy in their research. They found that neurological connections in the occipital lobes of individuals with autism were thicker than individuals with ASD diagnoses, indicating heavy use of visual systems in the former's brains. This finding supports Grandin and Panek's (2013) observation that individuals with autism tend to be visual, patterned, or word-fact thinkers. The authors based this supposition on Grandin's personal experience with ASD and in experiences with others on the spectrum; they found further support in cognitive psychology research, particularly the work of Kozhevnikov (2007; Blazhenkova & Kozhenvnikov, 2009; Kozhevnikov, Kosslyn, & Shephard, 2005). In essence Kozhevnikov's research findings indicated that cognitive styles (i.e., preferred modes of processing information) vary and

go beyond the traditional verbal/visual binary, and therefore support other cognitive styles such as pattern-based thinking. Because visual and patterned thinking that is common in individuals with ASD is highly compatible with the same properties found in art therapy, the potential for neurological study of this connection exists and is waiting for exploration. It is necessary, however, to reexamine common assumptions about the characteristics of individuals with ASD, the effectiveness of existing therapies, and strategies for therapeutic alliance formation with these individuals in order to build a successful treatment framework for art therapy with individuals with ASD.

I posit that art therapy is uniquely suited for many individuals on the spectrum due to its visual nature and its ability to help individuals explore their perseverations in ways that acknowledge their deeper identifications with these interests and how those connect them to the outside world. Thus far, art therapy literature acknowledges the former but not the latter, which means that it is possible that art therapists are missing opportunities to connect with clients with ASD, and new clinicians are not trained to work in more effective ways. Potash (2009) asserted that traditionally in art therapy, stereotypical or popular imagery has been viewed as evidence of a lack of imagination or psychic defense; however, in the case of individuals with ASD these images are truly personal communications. It is important that this benefit be documented in research and elaborated in the formal literature of the field.

Organization of the Contextual Essay

The overarching goals of this project were (a) to examine the role that popular culture perseverations play in art therapy with individuals who are neurodivergent, particularly those who have a diagnosis of autism spectrum disorder; (b) to develop a

unifying theory and facilitative framework to assist art therapists in employing popular culture references within their practice with neurodivergent individuals; and (c) to communicate to a wide audience of stakeholders including art therapists, potential neurodivergent clients and their families, referral sources, and funders how art therapy may be uniquely suited to work with these perseverations in a therapeutic context and therefore to address the needs of neurodivergent clientele.

In order to achieve these goals, I designed the project with five components. First, I conducted a grounded theory study of the role of popular culture in art therapy with individuals with autism spectrum disorder, as well as in these individuals' everyday life, based on clinical case notes, video footage, and a videotaped interview of art therapy clients with ASD. From the study I constructed grounded theory and a conceptual framework that illuminates an art therapy treatment approach utilizing perseverative interests from popular culture. I designed user-friendly infographics to illustrate the theory and framework resulting from the study, which art therapists and other stakeholders can access for their respective goals and needs. I also edited advocacy videos to illustrate the study observations. Finally, I developed a website to disseminate the study findings and pertinent related information.

Due to this plethora of information from my project and to best address my stated goals, I elected to complete a "creative portfolio style" dissertation. This format utilizes a multimodal approach to present and disseminate dissertation results for the purposes of, in this case, advocacy and transformative practice (Kapitan, 2015). A creative portfolio dissertation describes the contextual and conceptual terrain of the study, its methodology, and its results, followed by a creative product or products from the results that can be

disseminated. In Chapter 2 of this contextual essay I offer a critical review of art therapy and related literature regarding the therapeutic treatment of individuals with autism spectrum disorder. In Chapter 3 I provide an explanation and justification of the research design and methodology, which addressed the first goal of the project, accompanied by an explication of the results.

Chapter 4 addresses the project's second goal, which is that of building theory and an adaptive framework that applies my findings to art therapy practice with individuals with ASD. This chapter presents the study results in the form of infographics and videos that provide a visually pleasing and user-friendly delivery of my theory and framework for understanding by a wide range of stakeholders including art therapists, clients and their families, and other professionals. I also describe and illustrate the website, which serves to disseminate my project. Not only will the website disseminate this information in a manner that is widely accessible, but it directly exemplifies the influence of contemporary digital culture on all these stakeholders, with particular symbolism regarding creating a bridge to the often digitally based interests of individuals with Autism Spectrum Disorders. Finally, in Chapter 5, I reflect upon my experience of the project, discuss my findings in the context of the literature, and identify implications of the project for the larger field of art therapy.

CHAPTER 2: LITERATURE REVIEW AND CONTEXTUAL FRAMEWORK

This literature review identifies the challenges and unique treatment needs for individuals with ASD, common therapeutic approaches and the therapeutic relationship, and relevant art therapy literature. Because I am a neurotypical individual, I have attempted to review this literature from my understanding of a neurodiversity perspective, which stresses that autism is a different—not wrong—way of thinking and that individuals on the spectrum should have a voice in their own therapeutic services (Ne'eman, 2012; Silberman, 2015). The following literature review culminates in making the case for art therapists in meeting clients with ASD where they are and working to bridge the neurodivergent and neurotypical spaces they experience.

Understanding Autism Spectrum Disorder

To develop an art therapy treatment framework for individuals with autism spectrum disorder, it is important to understand the core characteristics of ASD and the challenges that these individuals face. I will illustrate these characteristics and challenges through a description of the diagnostic criteria as detailed in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; American Psychiatric Association [APA], 2013), theories behind autistic behavior, and the construct of the neurodiversity paradigm. The following section will explore each of these aspects.

Autism Spectrum Disorder as Described in the *DSM-5*

The *DSM-5* classifies autism spectrum disorder with two primary areas of impairment and/or behavioral excesses: (a) deficits in social communication and interaction and emotional understanding and (b) restricted repetitive behaviors (RRBs), including perseverative interests, repetitive motor behavior/self-stimulatory behavior

(commonly known as *stimming*), difficulty with transitions and/or breaks in routine, and sensory under- or overstimulation. To receive a diagnosis of ASD, these symptoms must be present in early childhood but may become more severe with age. Individuals must also experience difficulties in social, occupational, and/or daily living activities at clinically significant levels.

ASD has several specifiers associated with the diagnosis; of primary import are the three levels of severity. Level 1, "requiring support," is the mildest, marked primarily by deficits in social interaction and initiation along with some RRBs; this level encompasses individuals previously diagnosed with Asperger's syndrome under the fourth edition of the *DSM* (*DSM-IV*). Level 2, "requiring substantial support," includes additional impairments in verbal and nonverbal communication and more severe RRBs. Level 3, "requiring very substantial support," features more substantial difficulties in verbal and nonverbal communication. These individuals are often nonverbal or minimally verbal, experience tremendous difficulty with transitions, and exhibit various RRBs (APA, 2013).

Restricted repetitive behavior. A primary symptom of autism spectrum disorder (APA, 2013), RRBs include various behaviors such as perseverative interests, repetitive motor behavior/stimming, sensory symptoms such as under- or overstimulation, and difficulty with transitions and/or breaking routine. For example, a child may line up toys in a certain order repeatedly, become excited about this activity and begin flapping his hands, and then become anxious or upset when the family pet knocks over the toys or he is asked to put them away. At this point he may become inconsolable or physically aggressive. This is typical behavior of a toddler, but in individuals with ASD it often

occurs throughout their lifespan. These behaviors frustrate both the individuals with ASD and their caregivers; the latter frequently think the former are being stubborn when in fact they are having difficulty processing change.

Perseverative interests. Perseverative or "circumscribed" interests are defined as high-intensity fixations displayed in individuals with ASD, such as memorizing to the smallest details the lineup of a favorite baseball team or insisting on rewatching the same short segment of a film over and over. As fixations they are a subtype of the restricted repetitive behaviors described above (Boyd et al., 2007). Until recently, therapists attempted to eliminate these RRBs through behavior extinction methods that provided reinforcement for not completing the behaviors and punishment for completing them (Raulston & Machalicek, 2017). Treatment of RRBs now varies dependent on type; for instance, those who are self-injurious (e.g., repeatedly hitting oneself) are still targeted for modification or elimination, whereas the typical intensity of the perseverative interest subtype, and relative lack of danger to self or others, has led clinicians and researchers to attempt to leverage them as a part of their treatment of ASD symptoms (Boyd et al., 2007; Raulston & Machalicek, 2017; Vismara & Lyons, 2007).

Two studies found that integrating perseverative interests into social interaction and social skills instruction actually led to increased social motivation, initiations, and interactions in samples of preschool and early school-age children with ASD. One study found associations between the perseverative interest condition and higher levels of joint attention motivation (Vismara & Lyons, 2007); that is, a child with ASD might be more likely to engage in cooperative play with another child when the play focuses on the former child's preferred high-intensity interest. The other study observed that participants

more often initiated social interactions when their circumscribed interests were present (Boyd et al., 2007), but these interactions remained one-sided and did not lead to the child's generalizing of the social skill in different situations.

Sensory symptoms. Sensory symptoms are present in autism but historically have been treated as secondary (Boyd, McBee, Holtzclaw, Baranek, & Bodfish, 2009). Individuals with ASD often have sensory hyperreactivity or exaggerated responses to sensations; for example, a person who cannot stand the feeling of wet cloth against the skin and therefore immediately removes clothing when it becomes wet. They also frequently experience sensory hyporeactivity, which is the opposite phenomenon. Some individuals with ASD are unable to sense extremely hot water temperatures and become burned as a result. Additionally, individuals with ASD often display sensory-seeking or sensory-avoiding behaviors, which are often responses to sensory under- or overstimulation in that they seek out sensory experiences that either fulfill a deficit or remove an unpleasant sensory stimulus.

Researchers have linked sensory hyper- and hyporeactivity and sensory-seeking behavior to perseverative interests and other RRBs in some individuals with ASD (Liss, Sauliner, Fein, & Kinsbourne; 2006). In earlier editions of the *DSM*, sensory symptoms were not included as part of the diagnostic criteria, despite frequent reports by both professionals and parents of sensory hyper- and hyporeactivity and sensory-seeking behavior in individuals on the spectrum (Liss et al., 2006). Liss et al. (2006) hypothesized that sensory hyperarousal may indeed be responsible for perseverative interests and difficulty in shifting attention between tasks. The authors surveyed and interviewed approximately 200 parents of individuals with ASD to evaluate, based on their reports,

whether perseverative interests and behavior resulted from sensory hyperreactivity. These researchers found correlations that supported their hypothesis, which connected sensory hyperarousal to perseverative interests and behavior and selective attention (e.g., becoming preoccupied with small details, such as a minute paint stain on a table, to the exclusion of anything else in the room); however, they did not investigate the causation of this connection. Liss et al. also found a correlation between hypoarousal and perseverative interests and behavior and the occurrence of selective attention. This finding suggests that perseverative interests and behaviors may be a gateway to engagement for individuals with ASD, particularly when they are experiencing sensory processing difficulties.

Social communication and understanding. Individuals with ASD also experience difficulties in social-emotional understanding and impairments in theory of mind (i.e., understanding others' mental states through nonverbal cues and consequently being able to predict social behavior), which fall under the umbrella of social cognition (APA, 2013). These difficulties in attributing the emotions of others to events and attention tend to be focused on the periphery (e.g., noticing the sound of someone's pen clicking rather than what the person is saying, and therefore missing emotional cues) instead of attributing relational meanings to social stimuli. As such, individuals with ASD have difficulty understanding social norms (Bauminger, 2002). Individuals with what has often been termed high-functioning autism (i.e., those diagnosed with Asperger's syndrome under the *DSM-IV* or ASD Level 1 under the *DSM-5*) demonstrate an ability to identify basic emotions, such as happiness, but they have difficulty finding the cause of said emotions (Bauminger, 2002). These difficulties in identifying emotions, when

accompanied by RRBs and an interest in peripheral elements, may produce a lack of social motivation (Vismara & Lyons, 2007).

Co-occurring anxiety disorders. Co-occurring anxiety disorders are common in individuals with ASD (Kreslins, Robertson, & Melville, 2015); Sze and Wood (2007) noted that this is particularly true of individuals with high-functioning autism. Children with ASD have higher rates of anxiety diagnosis than peers without ASD. This demographic also has higher rates of obsessive-compulsive disorder, social anxiety, and specific phobias, although sometimes symptoms are difficult to distinguish because of the similarity to ASD symptoms, such as restricted repetitive behavior and obsessive thoughts. Individuals with ASD and co-occurring anxiety have difficulty with social relationships that can affect multiple areas of their lives; therefore, treatment of the underlying anxiety might help to address social skills deficits and other relational difficulties (Sze & Wood, 2007). Because restricted repetitive behaviors may be a sign of anxiety (Sze & Wood, 2007), a professional may encourage their use to further understand the client's anxiety, possibly identifying the anxiety's etiology or working toward more adaptive coping skills if the RRB is disruptive.

Neurological Theories for ASD Symptoms

Numerous theories attempt to explain the core symptoms of ASD. I will briefly describe these theories, as they offer some insight into how neurocognitive differences between individuals with and without ASD may come about.

Empathizing–systemizing theory of autism. Baron-Cohen, Leslie, and Frith (1985) proposed that children with ASD have an impaired or lack of theory of mind. Lack of theory of mind, also called *mindblindness*, amounts to a deficit of empathy. This

deficit seems to be due to difficulty in separating one's own thoughts and feelings from those of others. For example, assuming that chicken nuggets are other people's favorite food because they are your favorite food. Baron-Cohen et al. proposed that lack of theory of mind could be one reason for social impairments in ASD.

Baron-Cohen (2002) later expanded this theory into *empathizing–systemizing theory of Autism*, with theory of mind comprising the empathizing part of the theory. The systemizing part surmises that individuals with ASD excel in creating and following systemic patterns; for example, they particularly thrive when they have specific rules to follow. Baron-Cohen also categorized restricted repetitive behaviors and difficulty with transitions under the construct of systemizing. He alternatively referred to this theory as "extreme male brain" theory due to the preponderance of ASD diagnoses in males and the perceived overlap between behavior related to ASD and anticipated male behavior as more systematic and less empathetic than female behavior.

Weak central coherence. Weak central coherence refers to the difficulty that individuals with ASD have in integrating information into a coherent whole or gestalt, described above as over-selective attention. Frith (1989) connected this challenge to an individual's ability to detect or observe minute details, theorizing that individuals with ASD have a detail-oriented form of cognition instead of neurotypical global processing. Frith (1989) argued that this characteristic can explain anything from exceptional attention to detail in perseverative interests (e.g., knowing the names of every Pokémon character) to an inability to focus when experiencing sensory overload (e.g., being unable to concentrate in class when there is a humming florescent light overhead). Research results have been mixed at best, however, with some showing support (e.g., Happé, 1996)

and others disconfirming the theory (e.g., Edgin & Pennington, 2005). This theory overlaps with empathizing systemizing theory in that it characterizes individuals with ASD as detail-oriented and systematic in their thinking.

Multi-System Brain Disconnectivity-Dissynchrony and temporo-spatial processing disorders. Welsh, Ahn, and Placantonakis (2005) pointed out incidences of "mis-wiring" in the brains of individuals with ASD. Based on their brain scans, the neuronal connections in individuals with ASD appear to differ from those of their peers without ASDs, which implies a developmental disruption. Based on their analysis of Welsh et al.'s and others' examinations of brain scans, Gepner and Féron (2009) theorized that such "mis-wiring" can speed up some signals in the brain while delaying others. Multi-System Brain Disconnectivity-Dissynchrony leads to temporo-spatial processing disorders, the symptoms of which consist of delayed verbal processing (e.g., when an individual needs longer than the customary amount of time to process a question in order to answer it) and physical and psychological overstimulation when too many senses are activated at once, such as becoming overwhelmed in a movie theater due to the auditory and visual stimulation.

This theory contradicts that of empathizing systemizing theory and weak central coherence theory, arguing that individuals with ASD are not detail-oriented or compartmentalizing information but, rather, become overwhelmed when their brains either cannot respond quickly enough or respond too quickly to external stimuli. This line of thinking is more consistent with my practice experience in that I often must provide clients extra processing time or limit distractions so that they may improve their ability to concentrate and work with me in art therapy sessions. However, these theories are not

necessarily mutually exclusive. Some of the different aspects may occur simultaneously; for example, a student may become overwhelmed when having to shift focus from an assignment to the questions a teacher is asking, which presents a possible combination of detail orientation and need for extended processing time.

Executive dysfunction. The theory of executive dysfunction attributes autism to difficulties in the brain functions that influence behavioral control, namely the frontostriatal and frontoparietal circuits in the neocortex. These areas are responsible for the brain's higher cognitive functions, which include self-regulation, emotional and visual processing, and flexibility in thinking (Turner, 1999; Verte, Geurts, Roeyers, Oosterlaan, & Sergeant, 2006). This theory shares characteristics with Multi-System Brain Disconnectivity-Dissynchrony theory in that it points to difficulties in brain system communication as a perpetuating agent in ASD symptomology.

In a study involving 20 children with ASD and 40 typically developing children, researchers found that individuals with ASD had trouble reading emotions in human faces but did not experience the same difficulty with cartoon faces (Rosset et al., 2008). This example of executive dysfunction demonstrates a disparity between the processing of cartoon faces and human faces. Participants with ASD appeared able to process cartoon faces with "typical configural strategies" (Rosset et al., 2008, p. 923) but did not process human faces in the same manner. Alternatively, individuals without ASD processed both types of faces in the typical manner. Rosset et al. suggested two explanations for this result: (a) social interaction does not occur with cartoons and therefore social impairment does not influence perception of cartoon faces and (b) the naturally increased interest that children with ASD have for cartoons (over people) leads

to better, more accurate processing of cartoon faces. These two suggestions do not seem entirely incompatible with each other. For example, someone with ASD may perseverate on a cartoon movie and replay that movie, endlessly studying the facial features, which is something that the person cannot do in a social situation. It is possible that this process could also occur with live action movies; however, I have never seen this in my personal experience.

Inner speech. Vygotsky (1978) posited that inner speech is essential to cognitive development, which includes social interaction and cognitive reasoning. Studies link impairments in inner speech to difficulty with other executive functions such as planning, mental flexibility (Hill, 2004), and deficits in recall and the ability to switch between tasks (Whitehouse, Mayberry, & Durkin, 2006). Perseverations such as those described in Suskind (2014) that included apparent echolalic communication from Disney movies provide opportunities for social communication and may supply alternatives to traditional inner speech, thereby bypassing underdeveloped executive functioning. This theory has an important implication for art therapy, which may also facilitate alternate routes that replace inner speech.

Inner speech is not by definition part of executive functioning (Baddeley, 1986; D. Williams, Happé, & Jarrol, 2007), but deficits in inner speech can account for difficulties in executive functioning in individuals both with and without ASD (D. Williams et al., 2007). Wallace, Silvers, Martin, and Kenworthy (2009) compared typically developing individuals and peers with ASD who performed a cognitive task after being trained to suppress their inner speech when doing so. The researchers demonstrated that former group performed significantly worse on the task when

suppressing inner speech, whereas individuals with ASD were not significantly impaired. This conclusion supports the hypothesis that inner speech is impaired in individuals with ASD. In contrast, D. Williams et al. (2007) found that individuals with ASD have the same level of inner speech use as their peers when assessed with different memory and language tasks. These authors' finding suggests that impairment in inner speech is more complicated than originally theorized and may only be present in certain tasks.

Vygotsky (1978) suggested that inner speech has a significant role in cognitive and social development; therefore, impairments in inner speech need to be addressed in therapy and education of individuals with ASD. From my own experience, I learned that individuals with ASD often speak to themselves aloud and repeat things others say (even in the absence of echolalia). This observation is consistent with the idea that inner speech may be impaired and, thus, individuals with ASD look for other mechanisms to make up for the lack of internal monologue. In addition to verbalizations made aloud, participation in art therapy may offer an avenue to develop other alternatives for inner speech, such as through visual exploration of situations the client has difficulty understanding.

Neurodiversity

Once regarded as impairments stemming from inadequate parenting, neglect/abuse, and childhood schizophrenia, among other stigmatizing beliefs that resulted in institutionalization, ASD and other neurological disorders (including attention deficit hyperactivity disorder) are now considered part of a range of "normal, natural variations in the human genome" (Robison, 2013, para. 1). Some consider these different styles of neurocognitive functioning to be "dysfunctions" only in comparison to neurotypical individuals. *Neurotypical*, a term coined by Attwood (1998), initially

referred to individuals without ASD but has now broadened to refer to individuals without diagnosed neurological conditions or whose neurocognitive functioning is considered typical and accepted in society at large (Liebowitz, 2016; Silberman, 2015).

A group of adults with ASD founded the Autistic Self Advocacy Network (ASAN; 2017) in 2006 in response to a lack of engagement of neurotypical scientists with adults with ASD in the dialogue regarding autism and its treatment. This group identifies with the larger disability rights movement that advocates for equal access and accommodation for individuals with a wide range of disabilities. ASAN adopted the term *neurodiversity* to engage a broader discussion of autism treatment that had previously focused specifically on finding a cure. ASAN engages individuals with a variety of diagnoses (although primarily autism) in self-advocacy for independence and accommodation rather than focusing on a cure (ASAN, 2017; Ne'eman, 2012), which is akin with the disability rights movement.

Neurodiversity movement advocates have embraced the language of the disability rights movement and its statement "nothing about us without us" (ASAN, 2015, 2017; Silberman, 2015). In the disability rights movement this slogan refers to the desire of all people to make independent decisions and to have physical and psychological autonomy or self-determination, regardless of disability (Charlton, 1998). This phrase has taken on the same meaning in the neurodiversity movement (Silberman, 2015).

Therapists are challenged to understand the concerns of ASAN and the neurodiversity movement and avoid imposing one-size-fits-all treatments or treating aspects of ASD that do not need treatment, such as when an obsession with Pokémon that does not interfere with daily functioning and therefore should be regarded as a non-issue.

Alternatively, if said obsession does interfere but can be worked with, then one need not eliminate the obsession (a fact that will also have bearing on treatment). Proponents of the neurodiversity paradigm argue that individuals with ASD do not need a cure; rather, they need adaptations that help them optimally function in the neurotypical world (Liebowitz, 2016; Silberman, 2015).

ASAN (2017) advocates for acceptance of neurodiversity and promotion of the stance "nothing about us without us" applied to the ASD community. This advocacy encourages extensive participation of individuals with ASD in the research and development of treatments and assessments to fully understand what causes them actual difficulties versus what symptoms simply make individuals around them uncomfortable. ASAN is in support of more participatory methodologies in research and treatment that encourages exploration of the spaces within and between the neurotypical and neurodivergent worlds. The organization supports the participation and voices of individuals with ASD in the development of treatment and in making decisions about when and whether treatment is necessary. As a case in point, ASAN (2019) currently advocates for individualized treatment and is opposed to use of applied behavior analysis (ABA), which is the most common and widely researched treatment for ASD. The organization has argued that that ABA was developed by neurotypical individuals and deploys behavioral techniques to help people behave more like neurotypical individuals without appreciating the unique needs and abilities of individuals with ASD.

Psychological Theories of Development and Addressing ASD Symptoms in Therapy

Literature that examines theories of typical child development as they related to therapy is relevant to my research question—Bronfenbrenner's (2005a) bioecological

model in particular. By understanding how the latter theory functions with a typically developing child, one can then understand how applicable it may be in addressing ASD symptoms. Bioecological theories and treatments contribute to developing a facilitative therapeutic framework for the integration of perseverative interests derived from popular culture into art therapy.

From the early days of the field, the "nature versus nurture" debate has played a major role in psychology (Zaky, 2015). Psychodynamic theorists ascribed to the "nature" theory that individuals are predominately self-contained due to inborn determinants and thus their development is unlikely to be significantly influenced by outside forces (Zaky, 2015). Behaviorists came from the opposite perspective, that of "nurture." They claimed that the developing person is shaped in primary ways by the surrounding psychosocial-sensory environment. Zaky (2015) utilized the characteristic of aggression to highlight the differences between the two; he drew attention to Freud's (as cited in Schermer, 2000) supposition of aggression as an inborn drive, as compared to Bandura's (as cited in Bandura, Ross, & Ross, 1961) observation of aggression as a learned behavior. Although this debate has persisted ever since, today psychologists advocate a more nuanced perspective, in recognition that human development is complex and a product of a combination of both nature and nurture (Zaky, 2015). Ecological/bioecological theory ascribes to this view, which I explore later in this review; however, first I will briefly review the history of relevant child development as it applies to therapy theories.

Psychoanalytic and Psychodynamic Theories

An interest in human development, particularly child development, has been a part of Western psychology for at least the last 150 years. In Freud's theory of

psychoanalysis and early psychological theory, professionals treated the infant as "a closed system, self-contained and ruled by inner impulses" (Schermer, 2000, p. 201). Freud saw humans as ruled by their unconscious minds. He asserted that unconscious impulses, memories, and desires govern all human action (Kenney, 2014). According to drive theory, these unconscious feelings guide human behavior. The primary human drives, in Freud's estimation, are sex, aggression, and survival. Freud saw the helplessness of infancy as a traumatic experience that was unavoidable and something that parents could not prevent; as such, he believed his views of the human experience to be universal (Kenney, 2014). The most social aspect of Freud's theory was the concept of transference, in which he theorized that in order to work through one's intrapsychic issues, especially those stemming from infancy, a patient will transfer unconscious feelings from early experiences with parents and caregivers to the therapist who in turn reveals and interprets them. Transference is still very much an unconscious process (Kenney, 2014).

Freud described early infancy as a "normal autistic phase" of development, which Mahler (as cited in Mahler, Pine, & Bergman, 1975) expanded upon. She explained that a newborn's primary contact with the outside world is to meet physiological needs, such as feeding; otherwise, the newborn remains mostly internally focused, sleeping much of the time. Mahler also posited that children are in "a stage of absolute primary narcissism, marked by a lack of awareness of a mothering agent" (Mahler et al., 1975, p. 42). Narcissism, in this sense, has to do with self-absorption in the absence of a fully formed construct of the other. The self and other are merged and as yet undifferentiated. While not fully recognizing the caregiver as separate from the self, the infant also senses an

inability to fulfill physiological needs. This nonsocial “autistic” phase eventually gives way to a “normal symbiotic phase” (Mahler et al., 1975, p. 43) whereby the infant becomes emotionally attached to the caregiver and begins to recognize the self as existing in a mutually reinforcing system with the caregiver. Mahler et al. (1975) asserted that these early phases were the first steps in a process of separation and individuation of the self from the caregiving object on which the infant is completely dependent. The description of these behaviors in early infancy is not unlike the described behavior of individuals with Level 3 ASD. Interestingly, Bergman (2000) explained that Mahler eventually rejected Freud’s theory of a “normal autistic phase,” deciding instead that symbiotic behavior, in which parent and child are intimately co-relational, occurs much earlier in development.

Klein (1960), a follower of Freud and an early proponent of the British school of object relations theory of development, acknowledged that interaction with others was important in the world of a human infant, especially in providing a sense of comfort and security throughout the long maturation during which initially the infant is completely dependent on others for survival. Klein and Mahler both recognized and integrated into their theories the undeniable fact that human infants cannot survive alone (Klein, 1960; Mahler et al., 1975). The theory of object relations posits that, as a result, infants internalize their caregivers in the maturational process of separation and individuation into an autonomous self. Klein suggested that the infant’s first object begins with the intense relationship with the mother’s breast that ensures the infant’s survival. Infants are not able to perceive these objects, whether the breast or the mother who offers it, as separate from the self. Rather, the object is perceived as an extension of themselves in the

undifferentiated self–object orbit of early development. Object relations theory provided the foundation for mid- to late-20th-century elaborations of attachment, intersubjectivity, and systems theories.

In developmental psychology the view of infant as closed system began to change when psychologists such as Winnicott and Erikson began to elaborate on the pivotal role of social influence on maturation (Schermer, 2000). Erikson's (1963) psychosocial developmental theory focused primarily on internal states but related them to the person's formative interactions with significant others. For instance, Erickson's initial stage of "trust versus mistrust" in infancy acknowledges that infants must learn to judge when their environment is safe and whether they can trust their caregivers (a concept that is antecedent to systems theory).

As a pediatrician who treated developmental issues in children with their mothers, Winnicott (1969, 1971) provided empirical evidence that built upon Klein's (1960) object relations theory. He directly observed that baby and mother always functioned as a unit rather than as two separate beings, which contrasted with Klein's and Freud's practice of relying on adults to describe their childhood experiences in therapy. "In retrospect, we can see that Winnicott was implicitly a systems theorist," claimed Schermer (2000, p. 201). That is, Winnicott understood child development as operating in an integrated social system that exerted its precise influence based on what both the infant and the primary caregiver brought to it. Winnicott (1971) proposed the construct of a "good enough mother"; that is, a primary caregiver who neither fails the child nor sees herself as perfect, but is able to provide a secure "holding space" for individuation to occur by constantly adjusting her responses to what she judges the child needs—whether more

constantly in times of stress or less so when she perceives the child is able to struggle a bit so as to be able to self-soothe and explore the world with gradually maturing autonomy.

Important to the current study, Winnicott (1971) elaborated further that an infant's experiences in the mother–child orbit create a "transitional space" between them that the child extends with the child's choice of an object when the mother is not available, such as a blanket or soft toy that the child attaches to and utilizes for self-soothing. Such transitional spaces or phenomena carry for the child a sensory representation of the relationship with the mother; they essentially provide the "transition" in psychological states that help maturing, less dependent and anxious children individuate a sense of self and learn that they are separate beings from their mothers. Because the transitional object at first is explored orally by infants, Winnicott theorized that it functioned as a substitute for the mother's breast with all the attendant emotions of feeding, satiation, and physical-emotional contact it evokes. As such, the object is the baby's first symbol. "The baby creates the object, but the object was there waiting to be created to become a cathected object" (Winnicott, 1971, p. 119).

Winnicott (1971), and Mahler before him (Mahler et al., 1975), observed that an infant's perception of reality can become influenced by changes in the maturational environment. In the process of cognitive and psychological development, a child changes from not being able to distinguish the self from the other to being sufficiently individuated so as to be able to do so and thereby capable of forming the concept of *me* and *not me*. Eventually, the child destroys the transitional object—rejecting it or forgetting it—while sometimes returning to it to see if it is still there, as the child

transitions with greater self-agency from “object-relating” to “object-using” (Winnicott, 1971, p. 126).

To elaborate on this latter point, infants and young children must learn to relate to an object of attachment that they do not realize at first is outside themselves. They experience the object, which early on is the caregiver, as always responding to them and usually in consistent ways. Once this consistency is felt to be secure, the child will attempt destruction of the object, to test the relationship (Tuber, 2008; Winnicott, 1969). One can think of small children who drop toys to see their caregiver’s reaction. If they always receive a smile, even in circumstances that normally would produce irritation or anger, the child may feel mirrored in satisfaction but lose the opportunity to learn potential consequences of their actions, therefore not understanding that their own feelings of pleasure in dropping the toy are different from their caregivers’ feelings of annoyance. Individuation is what entails children’s growing ability to distinguish their needs from those of their caregivers—to recognize that although emotionally connected, they exist as separate entities (Tuber, 2008; Winnicott, 1969). Thus, to see if these responses will remain constant or if they will change, the “destruction” of the object is deployed to test the bounds of the caregiver’s reliability and the strength of the relationship. “If the mother and baby survive this id satisfaction in the context of relatedness, it makes their relationship stronger” (Tuber, 2008, p. 88). The child learns that, although separate from the child, the caregiver is still reliable; this recognition that the caregiver is different from the self is what sets the stage for object usage (Tuber, 2008). The child is able to make full use of caring others in the process of growing and learning.

These concepts of object relations, along with Winnicott's (1971) "good enough mother," contradicted Freud's earlier view that childhood trauma was a universal experience with no possible remediation or comfort (Kenney, 2014). According to object relations theory, relationship with the primary caregiver and the learned ability to transfer to other experiences the security that caregiver supplies are the primary agents of development. Winnicott (1971) also postulated that the child's identification of a transitional object is a foundation for creative and symbolic thinking. The meaning imbued in the first transitional object, over time, is displaced and elaborated into other transitional phenomena such as science, religion, and culture.

It is in this area of the theory that the seeds for a systems view of development seem most apparent. Winnicott (1971) theorized that play and cultural learning happen in the transitional space of mutual, shared relationship and asserted that a child's capacity to play serves as an introduction to cultural experiences via learning about an environment and its expectations through interactions within that environment. In his primer on the work of Winnicott, Tuber (2008) noted that Winnicott described the infant as "an active creative being who longs for the space to act spontaneously" within facilitated learning opportunities (p. 51). In contrast, opportunities for engagement are fewer when an infant's neurology is unable to make sense of the primary caregiver or the caregiver is in a depressive state, for example. Around 4 months of age infants usually are able to recognize that their primary caregivers' mood states are different from their own. They begin to act in ways to repair the caregiver's mood when it appears depressed or disengaged. The infant changes behavior to improve the caregiver's mood and thereby to increase the caregiver's mental and physical presence with the infant. In so doing, the

infant creates what is known as a “potential space.” Potential space is Winnicott’s term for the space of learning through spontaneous engagement with the caregiver and the external world (Tuber, 2008; Winnicott, 1971).

The recognition of the primary caregiver’s mood states while being simultaneously separate and one with the caregiver is the beginning of empathetic relationships and other capacities, such as the experience of guilt for not giving enough or from taking too much from others. Tuber (2008) explained that when infants, for whatever reasons, must change their behavior too often to improve the mood of their caregivers, there is a potential to lose touch with their “true self” and hence experience a “loss of creativity and feeling real” (p. 51). Winnicott (1971) asserted that most primary caregivers are “good enough” in that they provide the child with a few experiences where the child must repair the caregiver; thus, the child develops trust and a foundation for all future relationships and a sense of self. However, if caregiver and child become too enmeshed, this, too, can halt the child’s individuation and result in taking on the other’s depressive or anxious symptoms or other neurotic symptoms of the child’s own (Tuber, 2008; Winnicott, 1971). In these theoretical constructs we see the establishment of a highly influential microsystem of caregiver and child. Importantly, clinicians treating children must also be attuned to this microsystem and particularly the influence of the mental state and functioning of the caregiver on the child.

An extensive discussion of psychoanalysis and other depth psychologies beyond object relations theories is beyond the scope of this literature review. However, a brief introduction and exploration of the relationship of these theories to working with clients with ASD, particularly in art therapy, has some relevance. According to Rubin (2016), art

therapy originated in the psychoanalytic tradition and initially deployed art making to encourage catharsis and sublimation. Observing and working with the metaphors that clients identify in therapy has been a signature of art therapy since its beginning. Wilson (2016) extended psychoanalytic philosophy in art therapy by asserting that art therapists' engagement in psychoanalytic study of clients and their artwork can help them better understand their clients. Learning a client's life history and viewing the client's artworks within that context, which is highly relevant when communicating with clients with ASD, can help art therapists find and begin to understand connections that may exist between the client's conscious and symbolic worlds.

McNiff (1989) emphasized the role of metaphor in the depth psychology of art and, by extension, in art therapy. His concept of *psychoaesthetic inquiry* referred to the role of artistic expression in self-exploration, imagination, and understanding and appreciating the world around us at a deeper level. McConeghey (2003) further elaborated that people are constantly perceiving and interpreting the world around them while creating their own—albeit often unconscious—metaphorical images of their world. McConeghey explained that even the most mundane imagery represented by an artist or art therapy client communicates deeper messages:

> It is essential for art therapists to think of form as an active force, as an image doing something. A painting speaks but it speaks an image through form. . . . But true communication cannot be a contrived attempt to convey an already formed idea. It must be a result rather than a goal. (2003, p. 28)

In the context of this dissertation, McConeghey's assertion translates to looking for the deeper meaning of the clients' presenting imagery, which may include references from

popular culture. In considering this idea I can readily call up the example of a teenage client, mentioned briefly in Chapter 1, whose entire body of artwork was centered on the characters Sonic and Shadow from the Sonic the Hedgehog video game franchise. On the surface, his images were mere stereotypic reproductions of these characters. However, after relating with this client over time, I learned that these images, particularly those of Shadow—a character that may be interpreted as Sonic's shadow side—represented how this client chose to interact with the world. He adopted the persona of Shadow as a protection from bullying, and even dressed in the color patterns of Shadow's coat. These images were all about his interaction with the world, not just a game he liked to play.

Henley (1989) described how perseverative interests give art therapists a view into the psyche of individuals with ASD and asserted that if art therapists pay close attention to the repetitive interests of such clients, they will be able to identify the clients' primary concerns. Moon (2007) referred to the art therapist as a *metaphoretician* who "skillfully and spontaneously uses metaphors to uncover and convert truths" and is "inclined to speculative contemplation and action in response to metaphors" (p. 12). The greater the ability to stay in the metaphor with the client, the more therapeutic the relationship may become as therapist and client with ASD understand each other and achieve more therapeutic goals (Henley, 2018). As illustrated above, in my experience these metaphors often come in the form of imagery from popular culture.

Attachment and Intersubjectivity Theories

Winnicott's theories led to those of attachment theorists from the mid to late 20th century (Kenney, 2014). *Attachment* refers to "an affectional tie that one person (or animal) forms to another specific individual. Attachment is thus discriminating and

specific" (Ainsworth, 1969, p. 971) and influences behavior. For example, when children fall and are uninjured, they look around to see if anyone has seen them fall; often when someone has observed the fall they mirror back that person's reaction. If a parent (or other figure to the whom the child is attached) appears upset, the child is more likely to cry. If the person is unalarmed, the child is more likely to be unalarmed as well and able to continue engaging in the previous activity.

A central construct in our knowledge of attachment is that behaviors only occur in relationship with others (Ainsworth, 1989). Babies are born with instinctual actions, such as crying when hungry, which signal the need for caregiver contact, the result of which helps to establish a reciprocal relationship through mutual cuing. As development proceeds, the infant directs these behaviors less generally and more precisely at specific attachment figures, such as the primary caregiver. As also established in object relations theory, attachment must occur for human survival; however, attachment can take on distinct qualities through either secure or insecure reactions and responses (Ainsworth, Blehar, Waters, & Wall, 1978). Securely attached children use their caregivers as a grounding or safe point of reference, which allows them to mitigate anxiety and feel free to explore their environment as well as trust that their caregivers will be present upon their return for emotional refueling. Secure children may become upset if the caregiver leaves their presence; however, they generally calm quickly and are content with the idea that the caregiver will, in fact, return. Insecurely attached children, by contrast, feel they cannot count on their caregiver, for whatever reasons, to be present and available to return to, and therefore display more emotionally labile behavior. Healthy attachment

forms when children feel safe despite inevitable occasional discomfort or failure and have their physical and emotional needs met (Bowlby, 1958).

Intersubjectivity is one of the most recent elaborations from attachment and object relations theories. Intersubjectivity asserts that the self exists in relationship to other selves, which together form an intersubjective field (Benjamin, 1988). In its most basic sense, intersubjectivity is the deep stratum of reciprocity in human relationships (Gillespie & Cornish, 2009); more specifically, intersubjectivity is the often unspoken sharing of feelings between two minds (Benjamin, 1988). Stolorow and Attwood (1996), in their development of intersubjectivity theory, also looked to the unconscious but they focused on affective states and the learning of emotions rather than on sexual and survival drives. The reciprocal affective relationship, even on the unconscious level, constitutes a system: "It is not the isolated individual mind . . . but the larger system created by the mutual interplay between the subjective worlds of patient and analyst, or of child and caregiver" that constitutes the focus of therapy (Stolorow & Attwood, 1996, p. 182).

The sub-theory of *developmental intersubjectivity* identifies the intersubjective relationship with the primary caregiver from which infants begin to individuate (Benjamin, 1998). Benjamin (1998) also theorized that an infant seeks validation from the caregiver and therefore looks to the caregiver to affirm feelings and provide safety and comfort. For instance, an infant may draw a caregiver's attention to a preferred toy by pushing it toward the caregiver or shaking it and looking back at the person. In ideal situations, when either the child cues the caregiver in this way or when the caregiver responds by mirroring these emotions, a reciprocal relationship results in attunement and

the sharing of experience and emotions. In this example the caregiver might look at the toy and perhaps even physically interact with it, then mirror back the perceived feeling the infant has regarding the toy. This response creates their joint attention on an object and promotes relationship development as well as overall development of the infant. Not only are both infant and caregiver active participants in such an intersubjective relationship, attunement cannot occur without their social interaction (Benjamin, 1998). This concept is reminiscent of Winnicott's (1971) transitional space and transitional objects.

Individuals with ASD have attachment relationships and intersubjective experiences that are more complicated than these theories might suggest. Children with ASD are at higher risk for insecure attachment patterns due to the social and relational symptoms of ASD (McKenzie & Dallos, 2017). Individuals with ASD also may display attachment and behavior patterns that are similar to individuals with reactive attachment disorder (McKenzie & Dallos, 2017); however, this condition results from abuse and neglect, particularly in the crucial early childhood period. Early on in ASD research and diagnostic taxonomy, attachment difficulties in children with ASD were similarly attributed to lack of attention and caring interactions, such as hugging and playing, from the mother (Cutler, 2004; Kanner, 1949; Silberman, 2015), but it has since been shown that these patterns result from social communication difficulties that are often inherent in the child from birth (McKenzie & Dallos, 2017; Slade, 2009), such as a lack of naturally occurring joint attention, decreased eye contact, and other sensory-related characteristics such as disliking touch.

Although the aforementioned developmental theories are arguably believed to be universal to all children, there are myriad varieties of human behavior and such theories may be less applicable, as originally conceived, to children with ASD. For example, a child who is overstimulated by a caregiver's loving attention, for example, may shut down and thereby be perceived by the parent as rejecting. Rejection, in turn, may lead to greater stress in the relationship and exacerbate the attachment difficulties that began with the child's symptomology. Achieving secure attachment with individuals with ASD, thus, requires greater adaptive attention from the caregiver to prevent systemic misinformation or lack of attunement (McKenzie & Dallos, 2017; Slade, 2009). These challenges also translate to the art therapy setting. For instance, Durrani (2014) suggested that if the art therapist is willing to mirror what the child is doing (rather than the reverse) through sensory-based art, attachment relationships can be facilitated. Isserow (2008, 2013) suggested similarly that in the art therapy relationship it is important to show interest in and respond to the client's particular interests in order to facilitate the relationship.

Child-centered play therapy. Child-centered play therapy (CCPT) is a form of nondirective play therapy that addresses some of the challenges described above for children with ASD, with implications for how therapy may need to be adapted. Specifically, CCPT permits the child to lead the session, based on the notion that with a child-centered, nurturing environment children will naturally address their emotional and behavioral needs through metaphor (Guerney, 2001). This nurturing environment facilitates healthy attachment and promotes the development of self-concept as well as emotional and behavioral regulation (Salter, Beamish, & Davies, 2016).

The holding space (Winnicott, 1971) that the therapist provides in CCPT facilitates the child's completion of developmental stages at the child's pace; these stages may not have been previously completed due to the child's symptomology (Salter et al., 2016). CCPT emphasizes attachment through promotion of joint attention as child and therapist explore the child's interests together. CCPT also encourages social learning through therapist imitation of the child and modeling related to the child's initiations. This supportive play environment encourages development of verbal skills and social development (Salter et al., 2016).

Salter et al. (2016) conducted a single-case design research study with three participants with ASD in Australia. They assessed social and emotional progress (as well as parental perceptions of progress). All three participants showed measurable, albeit nonlinear, progress, which suggests that CCPT is effective for individuals with ASD. Overley, Snow, Mossing, Degges-White, and Holmes (2018) interviewed 10 registered play therapists trained in CCPT, who noted that the neutral environment of the CCPT playroom provided a welcoming atmosphere, and the sameness and consistency of the environment provided children with ASD a sense of comfort as well as a sense of control. These outcomes in turn facilitated the children's empowerment to make their own decisions.

The play therapists interviewed by Overley et al. (2018) claimed that the CCPT process facilitated relationship development through nurturing a nondirective, child-focused atmosphere, which parents reported had helped their children generalize relationship skills to their interactions with peers. Other important factors in the CCPT process of relationship development included therapist attunement with the child through

following the child's lead, a lack of adult redirection of play, unconditional acceptance of the child, and a willingness to learn from the child (e.g., what the child's interests are, what makes the child comfortable, etc.) as important relationship builders/guides to therapeutic goals. The therapist's willingness to provide caregiver support, psychoeducation, and training also constitutes an important part of CCPT with children with ASD and extends the effects of CCPT beyond the therapeutic relationship (Guerney, 2001; Overley et al., 2018).

Because CCPT is child-directed, there are no specific procedures that therapists follow other than providing unconditional acceptance and a willingness to learn from the child (Overley et al., 2018), as well as social modeling through a nurturing environment (Salter et al., 2016). These characteristics make it difficult to validate or test the research, not only because of small sample sizes but also because of the open-ended procedures structure. However, these studies do suggest that following the client's lead may be a productive way to work with individuals with ASD, which supports the advocacy goals of ASAN (2015; Ne'eman, 2012).

Joint attention. Joint attention is an essential concept to my conceptualization of how popular culture functions in the art therapeutic relationship. Neurotypical children naturally seek opportunities for joint attention; however, joint attention is one of the social communication deficit areas found in individuals with ASD (Vismara & Lyons, 2007). Because of this, therapists might find a means of encouraging joint attention through creative play, CCPT (Salter et al., 2006), and art therapy (Isserow, 2013; Martin, 2009). One potential first step by the therapist is engaging in a client's interests, rather than expecting the client to engage in materials introduced by the therapist. Vismara and

Lyons (2007) and Henley (1987, 2018) claimed that perseverative interests can provide an opening into development of joint attention skills and increased social motivation. To cite an example from my own practice, my willingness to learn about and watch videos of the Five Nights at Freddy's video game encouraged one client to create art based on this game and later to accept my suggestions to create symbolic art using the characters to do problem-solving with respect to real-life problems. If I had rejected the client's interest in the videos, perhaps regarding them as a distraction from the real work of therapy, the client may never have made video game–centered art or accepted and participated in opportunities for problem-solving through artwork. Additionally, modeling joint attention in such a way also encourages clients with ASD to become more open to therapist requests for joint attention on their non-preferred activities. The client above subsequently was willing to participate in activities that I introduced or suggested.

Case study research lends some support to my observations of therapeutic development of joint attention, from research on observation of peer interactions and introduction of interventions that encourage joint attention. Kasari, Freeman, and Paparella (2005) conducted a pretest/posttest study in which young children with ASD were taught either joint attention skills or imaginative play that included observation and imitation. The researchers compared the two intervention groups to a control group and found that children in the intervention groups gained these skills by a statistically significant margin.

Other researchers have investigated whether introducing children's perseverative interests into social situations with peers could increase their use of joint attention skills (Boyd et al., 2007; Koegel et al., 2012; Vismara & Lyons, 2007). In these studies

participants' interests were largely derived from popular culture, including areas such as movie trivia, comic books and gaming, and card games. Researchers observed increased social engagement with neurotypical peers and decreased social isolation. These studies lend support to my supposition that engaging perseverative interests can build the therapeutic relationship and also help clients with ASD to participate and communicate in the neurotypical world within which they live.

Art therapy and intersubjectivity. In the art therapy literature on treatments with individuals with ASD, Isserow (2013) posited that a therapist's mirroring of a child's art process promoted attunement, attachment, and self-regulation in children with ASD. As illustrated with two case studies, Isserow (2008, 2013) also suggested that the triadic relationship of art, client, and therapist serves to build joint attention as well as provide an opening to development of the therapeutic alliance. The first case, of a client he called Mary, had a diagnosis of Level 3 ASD and was unable to relate one-on-one with the therapist, which suggested difficulties in early development of object relations. However, Isserow (2008) reported some success in relating through joint art production:

> Mary's capacity to relate triadically seemed to be a considerable developmental achievement away. Working with her highlighted the enormity and importance of the need to establish a shared experience with the other, in order for a therapeutic relationship to develop. (p. 39)

The creation of a joint object by the art therapist and client, thus, provided a focus for joint attention and helped to build attunement and therefore a foundation for a therapeutic relationship. Attention to a client's special interests, likewise, offers an opportunity to model joint attention and encourage relationship development.

Isserow's (2013) second case study, that of a teenager diagnosed on the spectrum, was similar to that of Mary in terms of challenges in developing the therapeutic relationship. Tom (a pseudonym) engaged in sensory play with water with Isserow, using what might be termed "pre-art material" (Aach-Feldman & Kunkle-Miller, 2016). The water play provided a holding space through joint attention on the water. For example, Tom used symbolic language, such as "hoh" (for hot water), to communicate with the therapist and to facilitate the therapist's joint attention on the hot water. Isserow called the water "a point of shared connection to begin to engage [Tom] in interpersonal mind-to-mind relating" (2013, p. 130), asserting that this interaction facilitated their mutual attunement. As a triadic relationship, the water play was the third element between the therapist and child. Although not focused on popular culture, this provides an example of working with a client's perseveration, as evident in repetitive sensory play, to build the therapeutic relationship.

Bragge and Fenner (2009) developed a model of an intersubjective approach to art therapy called the "interactive square," which takes the triadic relationship a step further by including both the art therapist's and the client's artworks in the therapeutic interface or, alternatively, in the creation of joint artwork between the art therapist and client. They hypothesized that clinician art making may assist in developing mutual relationships with clients with ASD. From their review of videotaped sessions of clients' responses while the therapist engaged in responsive art making, they remarked, "Subjective, artistic responses were recognized as particularly appropriate for engaging empathically with the children" (Bragge & Fenner, 2009, p. 17). The researchers noted the importance of the art therapy being a "mutual, co-creative and intersubjective" process rather than one of

analysis and instruction (Bragge & Fenner, 2009, p. 17). They emphasized that the co-creative process facilitated use of the clinician's subjective experience of sessions to relate to clients and meet their needs. A visual dialogue between therapist, client, client art, and therapist art was created through real-time responsive art making by the therapist. In the development of this approach the researchers acknowledged inspiration in the interactive nature of other creative arts therapies such as drama and dance therapy. Bragge and Fenner illustrated multiple ways that interaction can occur within the interactive square when working with individuals with ASD (see Figure 1).

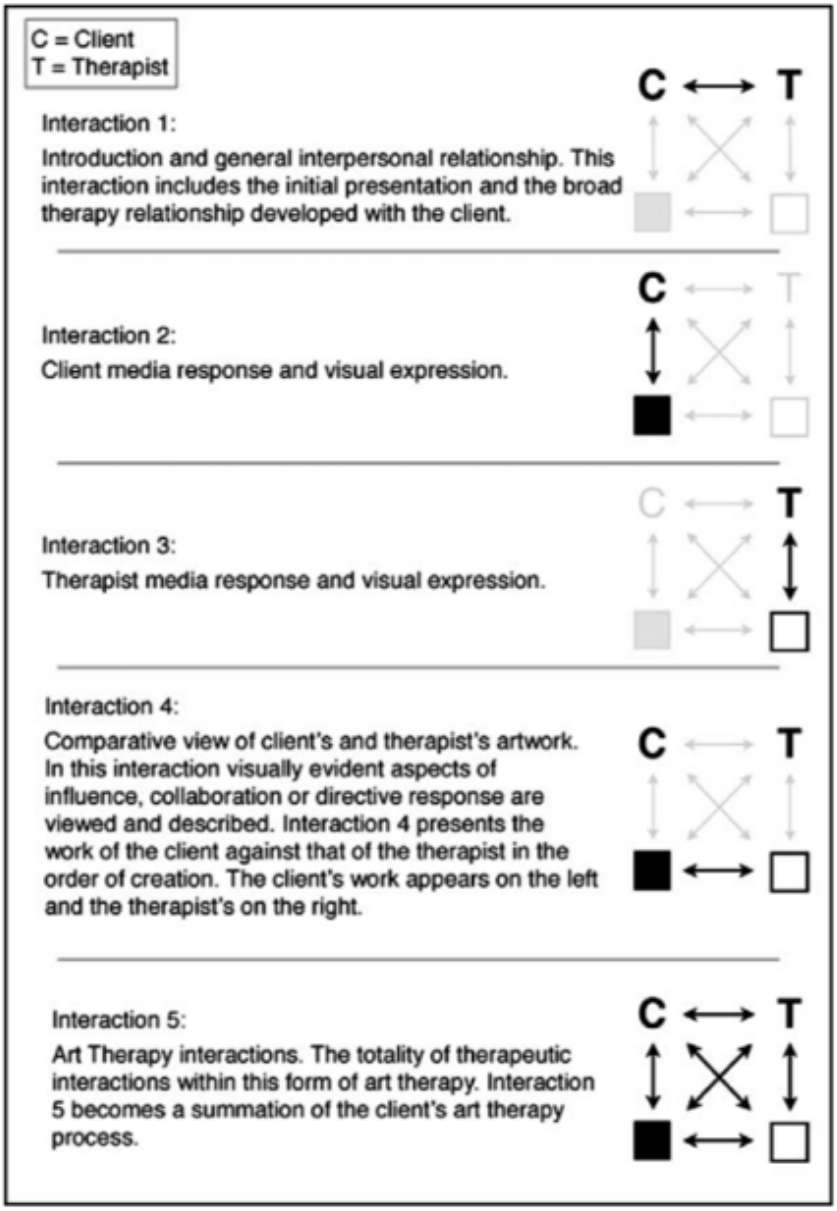


Figure 1. Interactive Square. From "The Emergence of the 'Interactive Square' as an Approach to Art Therapy With Children on the Autistic Spectrum," by A. Bragge and P. Fenner, 2009, *International Journal of Art Therapy*, *14*(1), p. 19. Copyright 2009 by the British Association of Art Therapists. Reprinted with permission.

Bragge and Fenner (2009) illustrated their model with two case vignettes. The first, of a highly verbal 7-year-old with ASD, illustrated interaction types 1, 2, 3, and 4. First they observed and expanded on the client's imagery to engage him in expanding his artistic repertoire, much like my own client experiences with popular culture interests. Next, for interaction type 3, the therapist created art and, for interaction type 4, the client and therapist compared their art and subsequently added individual and joint art making or joint attention on the art. Following and concurrent with this process the researchers observed increased verbal sharing from the client. Although he did mention being intimidated by the art therapist researcher's quality of artwork, he continued to accept her encouragement and engage in the sessions.

The second case example, of a nonverbal 12-year-old with ASD, began with descriptions of self-stimulatory behavior, spinning, wandering the room, and exploring the setting and available materials for the first four sessions. Bragge and Fenner (2009) categorized these first sessions as an interaction type 2 (i.e., the client and the media interacting without the art therapist). The researcher did not stop the child from this exploration, but rather allowed for individual exploration before intervening with only beginning mirroring of the child's interaction with the art material in the third session as a process of using perseverations to build the therapeutic relationship. Eventually, the child tolerated the researcher sitting next to her while creating art (identified as interaction type 3 because of the therapist's attention to her own artwork). Finally, the client was able tolerate more direct interaction from the researcher by observing and mirroring the researcher's mark making, although she did later retreat to a corner (interaction type 5). Over time, the client became more playful and interactive.

Bragge and Fenner (2009) concluded that the interactive square model promotes relationship, development/therapeutic alliance, empathy, and communication development in clients with ASD, citing the increased communication of both case subjects as evidence for these assertions. They posited that the art of both the therapist and the client provided an external object of focus, which reduced the client's pressure to interact socially. They also asserted that the client-centered nature of the approach was beneficial in helping clients feel connected to the therapist. This mirroring and attuning to client needs supports development of the therapeutic relationship and of joint attention and provides insight to the functioning of intersubjectivity within art therapy.

This theory aligns with how I have intuitively facilitated sessions with individuals with ASD. Although I will at times divert and direct a session in a more cognitive behavioral direction when necessary, generally I have found it best to follow the client's lead and will use my own art making (either independently as a response to the client or in mirroring the client) to build and encourage client participation. Although the interactive square model could be defined in greater detail, the consideration of how the holding of the therapeutic space, encouragement of exploration, and mirroring of the client all promote attunement is congruent with my experience working with this population.

Cognitive and Behavioral Theories

Behavioral and learning theories. Cognitive and behavioral theories are important to review because of their influence on current treatment approaches to individuals with ASD. Growing alongside psychodynamic theory over the 20th century, behaviorism disputed the importance of introspection and the role of the unconscious in

human interactions, likely due to the latter's intangibility as a construct. Because it is impossible to observe these constructs directly and measure their influence on behaviors, any assessment of introspection and unconscious thought must rely on the person's subjective reports. Watson (1913), an early research psychologist, famously asserted that all that is important in understanding human beings are observable behaviors and the tangibly identifiable external elements influencing those behaviors. So, if a baby is crying, is the baby's diaper wet? Is the baby cold? Hungry? To understand what is happening developmentally, Watson argued, it is not relevant to consider how the child feels in that moment or whether the child wants the mother. Behaviorists placed importance on external behaviors because these are observable and useful as empirical data (Watson, 1913).

Skinner (1953) expanded on Watson's ideas and proposed the concept of *operant conditioning*, which hinges on motivators or rewards as an explanation for behavior. He explained and demonstrated that animals and humans will work for rewards. For example, if a child wants a toy, the child might perform chores set forth by parents to earn the toy, which Skinner called positive reinforcement. Negative reinforcement is the removal of a negative stimulus to increase a behavior, such as when children clean their bedrooms to avoid getting grounded. In the case of a crying infant, relevant information would be how the infant's distress might condition the caregiver to reduce the negative stimulus. In addition to reinforcers, Skinner also explored punishers and their role in behavior. A positive punisher may be the introduction of a negative stimulus to curb an undesired behavior, such as electroshock therapy or a time-out. Negative punishers

include removing desired items to discourage a behavior, such taking away a child's favorite toy as punishment for hitting a sibling.

Operant conditioning is the foundation of applied behavior analysis (Kearney, 2015), which currently is a common treatment for various disorders including ASD. Lovaas (1987), the father of ABA, proposed and later studied the effects of operant conditioning on the behaviors of individuals with ASD. Reinforcements and punishments have been utilized to encourage the adoption of desired behaviors, such as independent use of the toilet or imitation of the play of peers or adults, and to decrease unwanted behaviors, such as stimming. Lovaas's methods became controversial over time when the public learned that he advocated for the use of electric shocks as positive punishment to attempt to decrease behaviors (Silberman, 2015).

Bandura, Ross, and Ross (1961, 1963) contributed to the behavioral social learning theory of Bandura in their research on whether witnessing physical and verbal aggression, either in person or on television/film, might influence aggressive behavior in early childhood. Bandura et al. (1961) sought to understand the role of exposure to aggression in children's development of aggressive behaviors by having them observe adults playing in aggressive and nonaggressive ways with toys. The experimenters found that children exposed to aggressive models were more aggressive, and that the boys were more aggressive than the girls. They also found that the children exposed to nonaggressive models were less aggressive than the control group. Bandura et al. (1963) replicated this controlled group experiment many times using live models, filmed models, and cartoons. They found that those exposed to the filmed and cartoon models displayed twice the level of aggression as the control group. Lovaas (1961) conducted a similar

study with comparable results. Both studies found generalization of this behavior over time.

Cognitive theories. Piaget's (1977) theory of cognitive development was informed by observations of how children explore their worlds. The theory described innate processes and preprogrammed development of cognitive skills that are believed to naturally occur in most people. Under this theory, the first stage of development, sensorimotor, occurs before age 2 when children are primarily focused on the functioning of their bodies while also individuating from their primary caregivers. The second stage, preoperational (between 2 and 6 years of age), is when children become capable of exploring their external environments and begin to develop an internal symbol system and language. The concrete operational stage is next (ages 7 to 11) and involves children beginning to use logic to manipulate ideas. The final stage, formal operational (ages 12 through adulthood), results in the ability to think abstractly (Piaget, 1977). Piaget believed that a child's development may be influenced by teachers, parents, and others, as well as the experiences provided to the child.

Lowenfeld (1947; Lowenfeld & Brittain, 1987), an art educator, extended Piaget's (1977) model by theorizing stages of graphic development observed in children's drawings. The first stage, scribble, parallels that of the sensorimotor stage. Children make marks and may scribble but do not draw identifiable images to represent their worlds. The second stage, preschematic, parallels the early preoperational stage and consists of early attempts at drawing or forming representational objects and figures, most typically by drawing people as circles with legs and arms sprouting out of them. Children in the preschematic stage begin naming and labeling the images in their artwork. The third

stage, schematic, parallels the latter part of the preoperational stage as drawings become more representational, with clear skylines and landlines near the top and bottoms of the paper. In this stage children place emphasis on important objects through size and develop simple schemas that they repeat frequently, such as rainbows. The fourth stage, dawning realism, parallels the early part of the concrete operational stage, whereby schemas become more complex and children begin to be self-critical of their drawing skills. The fifth stage, pseudo-naturalistic, parallels the latter half of the concrete operational stage and the beginning of the formal operational stage. Children may become frustrated when their sense of realism does not match their graphic abilities to accurately portray objects and give up on drawing and other artistic endeavors. The final stage, referred to as the decision stage or adolescent art, parallels part of the formal operational phase of development. Not all children reach this stage, as they may decide that art is not for them or that they are not good at it (Lowenfeld, 1947).

Psychologists Arnheim (1974) and Kellogg (1969) offered similar theories regarding artistic development, observing the sensory qualities and actions of early childhood development and the increased complexity of art as the child developed. Kellogg collected a large archive of children's drawings and posited a universal symbol system utilized by children globally, particularly in early childhood, equating these symbols with Jungian ideas of the collective unconscious.

These and other cognitive concepts also have influenced the development and delivery of therapy. In the 1960s, Beck (as cited in Hollon, 2010) began developing cognitive therapy based on research on treating depression with psychodynamic therapy, and formalized this theory in the early 1970s. Beck had expected to confirm the

effectiveness of psychodynamic treatment, which at the time involved working through repressed anger via psychoanalysis. He found instead that individuals with depression frequently had persistent negative thoughts and beliefs that were not relieved by psychoanalytic interpretation. This discovery led to his development of a therapy that emphasized a change process to transform thoughts and beliefs, sometimes through the application of abstract thinking. Cognitive therapy encourages clients to evaluate and challenge debilitating thoughts and beliefs. Beck had success in treating depression and anxiety as well as other conditions (Hollon, 2010).

***Cognitive behavioral therapy*.** Cognitive therapy laid the foundation for the creation of cognitive behavioral therapy (CBT), a well-documented, short-term treatment that targets faulty thoughts to improve or change behavior (Beck, 2011). Like psychodynamic forms of therapy, cognitive therapy and CBT maintain focus on the individual (Beck, 2011), although at times this involves challenging negative thoughts about social interactions. However, unlike psychodynamic treatments before them, cognitive therapy and CBT have been found to relieve symptoms relatively quickly, in weeks rather than years. This difference is one of the reasons such treatment has become quite popular in mental health care agencies. Moreover, extensive and rigorous research has helped to demonstrate the success of CBT in short-term therapy settings as compared to other treatment and placebos (David, Cristea & Hoffman, 2018). David et al. (2018) argued that CBT became the gold standard in therapy because most other forms of therapy were not researched as thoroughly, with equally accepted experimental methods of measuring effectiveness and efficacy. Why more research funding has been available

for CBT and its particular aims in the context of health care is an important topic, but beyond the scope of this paper.

Therapists often implement cognitive behavioral therapy as the preferred method of treatment for typically developing children with anxiety disorders (Sze & Wood, 2007). CBT is a process of psychoeducation and recognition of the interference of anxious or other behaviors, followed by systematic desensitization, or exposure to anxiety-provoking situations in order to change thought patterns about said situations, and coping skills development (Lang, Regester, Lauderdale, Ashbaugh, & Haring, 2010). Put more simply, CBT is a therapy aimed at changing thinking patterns and behaviors through how one recognizes the problematic results of said patterns and behaviors. For instance, if a client is afraid of entering a social situation, a therapist might ask what thoughts are behind that fear. After identifying the thoughts, the therapist would ask the client to challenge those thoughts and think of alternative outcomes for the anxiety-provoking situation.

CBT is not used to treat ASD specifically; rather, it exists as a treatment for accompanying anxiety and other mental health issues (Creed, 2015). Individuals with ASD often have difficulty with abstract thought and impaired social insight (Attwood, 2004) and therefore may have more difficulty applying CBT processes, so therapists adjust these to increase success. I have observed impaired social insight in several clients. One knew that people liked jokes, so he would tell a joke he found really funny. People did not laugh, but he did not appear to notice and continued to tell the joke repeatedly to the same people. As a result of this, people began to avoid him socially. He did not understand what had gone wrong because he followed the “rule” that people like jokes.

His difficulty understanding the social impact of his behavior likely was due to a lack of understanding the social cues of peers' body language or social language, as well as a lack of insight into his own behavior.

Researchers have completed systematic reviews of the literature to understand the usefulness of CBT for anxiety with individuals on the spectrum (Kreslins et al., 2015; Lang et al., 2010). Kreslins et al. (2015) reviewed 30 studies with approximately 500 total participants and noted from the self-reports included in these studies that caregivers and clinicians found the treatment to be successful; the participants themselves, however, did not always agree with this assessment. This discrepancy might be due to the language and cognitive abilities of participants or it may indicate that the criteria for what was considered to be successful treatment differed between caregivers and participants. Regardless of the positivity of caregivers, there may be a need to adapt how CBT is delivered to individuals with ASD. The review by Kreslins et al. highlighted input from individuals with ASD as to their feelings about a treatment method. However, the authors also recommended the use of CBT despite the negative response from individuals with ASD. This discrepancy suggests a need for further consultation with individuals with ASD regarding their treatment, especially in conjunction with recommendations from neurodiversity advocates.

Systematic reviews note that the existing literature frequently only addresses working with individuals with Level 1 or Level 2 ASD (previously called high functioning autism or Asperger's syndrome) and not individuals with greater difficulties in functioning, such as Level 3 ASD (Kreslins et al., 2015; Lang et al., 2010). Lang et al. (2010), who examined nine studies, theorized that this research and practice bias might

relate to verbal and cognitive differences across the spectrum: Individuals with level 1 ASD are generally more verbally expressive and produce a greater expectation among practitioners that they are able to participate in CBT, which tends to be a verbally complex therapy that requires talking through problematic thoughts and countering those thoughts. There is less expectation that individuals who are minimally verbal, as those with Level 3 ASD often are, will be able to understand the CBT process. Both studies report that CBT appeared to be an effective treatment for higher functioning study participants, as reported by caregivers (Kreslins et al., 2015; Lang et al., 2010).

The systematic reviews by Lang et al. (2010) and Kreslins et al. (2015) both illustrate areas that ASAN (2017; Ne'eman, 2012) has criticized regarding therapies for individuals with ASD. The development and testing of the effectiveness of these therapies rely heavily on the input of neurotypical caregivers, teachers, and providers of those with ASD, and may discount the desires and input of the individuals with ASD themselves. The same criticism could apply to what Bauminger (2002) mentioned, as discussed in the previous section. Strevett-Smith's (2010) case study involved a child with ASD more actively in developing the course and execution of therapy.

Attwood (2004) suggested adaptations of CBT for individuals with ASD to overcome insight, language, and social impairments that might otherwise make CBT difficult or less successful. His suggestion was based on his interactions with and observations of his clients and his sister-in-law, who were diagnosed on the spectrum outside of these observations. It is unclear whether he gathered input from individuals with ASD. He recommended making visual examples, such as drawing out how to interact in social situations or other anxiety-provoking situations, or presenting a comic

or storyboard showing someone telling a joke only one time and showing a variety of social responses. Other examples include pictures and scrapbooks that make social expectations more tangible, such as a picture of a row of urinals with men standing at every other urinal, as depicted by Baker (2006), to help a client understand bathroom etiquette. Still other examples include writing social stories, a concept developed by Gray (1994), in which a story or comic strip is tailored to specific situations to help individuals anticipate what will be expected of them socially.

Integrating perseverative interests into these methods can help increase interest and engagement on the part of clients with ASD. Sze and Wood (2007) illustrated this point with a case example of a preadolescent girl with ASD. She enjoyed drawing and perseverated on fears of kidnapping and war (possibly related to her interest in the *Star Wars* movie series), so the therapists asked her to draw what war looked like to her and then utilized another interest, Indiana Jones, to save the day. Her parents also trained in how to assist their daughter in applying her coping skills. The researchers noted that after treatment she no longer met the criteria for the three anxiety disorders. Unlike the previously mentioned examples, Sze and Wood outlined how they specifically worked with the girl's interests to facilitate her ability to lessen her anxiety, more in line with what ASAN (2015; Ne'eman, 2012) have suggested as a better practice in therapy.

***Applied behavior analysis*.** Applied behavior analysis is a form of behavior therapy that also utilizes some cognitive theory principles, specifically those related to typical child development. ABA was developed in the mid-20th century and is based on models of operant conditioning to teach desired behaviors (academic skill, impulse control, etc.) and to decrease undesired behaviors (Kearney, 2015). ABA has garnered the

support of a wide variety of state and federal agencies in the United States as a well-researched and effective treatment for autism symptoms (Hagopian, Hardesty, & Gregory, 2015). Despite this praise, ABA is controversial, largely due to the early use of electroshock therapy and other physical punishments to decrease unwanted behavior (Silberman, 2015), but also related to reports from individuals with ASD that they have been damaged by this therapy. ASAN (2015) wrote a letter to the U.S. Department of Education's Special Education Department to encourage schools and associated agencies to not see ABA as a one-size-fits-all treatment because of documented ethical concerns and also what ASAN viewed as use of ABA to the exclusion of other treatments that might be more appropriate, such as speech and language therapy.

Applied behavior analysis generally uses rewards and punishments to increase or decrease specific identified behaviors, which are the basic tenants of operant conditioning (Lovaas Institute, 2018). The most commonly followed and researched approach, the Lovaas Model, is applied in early childhood between the ages of 2 and 8 years, for between 20 and 40 hours per week. For young children, the goals of ABA therapy include physical and verbal imitation, language development, and play development. For older children, more focus is placed on self-care and socialization. This is done through discrete trial training, which includes the "teacher" demonstrating or providing an instruction for a behavior and the child imitating or completing the behavior, and repeating this process until the child no longer needs to rely on all of the physical, verbal, and visual prompts (Lovaas Institute, 2018). The child is rewarded at varying intervals for completing the behavior and encouraged to generalize the behavior to multiple settings through varied practice. Lay therapists (individuals with a bachelor's degree or

college students) who are trained and supervised by a master's level clinician or consultant often supply this facilitation. The Lovaas Model also involves use of incidental teaching, which encompasses practicing skills away from the typical ABA setting and may integrate peer play (Lovaas Institute, 2018). Forty years of research support the Lovaas Model (and other models of ABA). Lovaas (1987) found that 90% of children who participated in his model of ABA showed improvement in their skills and behavior, with nearly 50% displaying "normal" behavior and IQ after participation. Sallows and Graupner (2005) successfully replicated these results.

The Lovass Model has had an outsized influence on ASD treatment. To offer my own experience as an example, as a lay practitioner I recall being told that ABA could make children with ASD indistinguishable from their neurotypical peers and that the goal was to shape them to have typical behavior and academic skills. Although there are clearly some advantages to this goal, particularly for academic development and, to a lesser degree, social functioning, the prevailing opinion of professionals in the 1960s through early 2000s emphasized a neurotypical lens on ASD. Desirable social behavior is entirely contingent on what neurotypical individuals define it as and not on what neurodivergent individuals feel or desire. The latter's ability to communicate this desire is not always evident, however, given that ABA treatment begins in early childhood, before a child has acquired a repertoire of communication skills.

ABA certainly helps with school readiness, but ASAN's (2015) concern over ABA being treated as a one-size-fits-all treatment is valid, based on the literature and clinical observations of therapists in various fields. For example, in the intervening years between my work as a lay therapist with ABA and my subsequent training as a certified,

master's level clinical consultant in ABA, I also completed two master's degrees in the professions of art therapy and mental health counseling and worked in a recreation therapy program. My training and direct observations gave me a healthy dose of skepticism for ABA and perspective on its critique by ASAN. For instance, one teenager who worked with me in art therapy while being treated by ABA therapists seemed to me to be always angered by ABA. His therapists never seemed to get anywhere, whereas art therapy seemed to reach him. This and other experiences and training led me to develop a more integrated approach as an ABA consultant, working with art therapy interns who learned both ABA and non-ABA methods that offered a more flexible approach, when appropriate.

There is some research support for adapting ABA in a way that is tailored to individual needs. Camargo et al. (2016) conducted a meta-analysis of behaviorally oriented social skills development programs in inclusive settings (i.e., settings that involve individuals with and without ASD), many of which utilize ABA methods. The researchers examined 19 studies that measured outcomes from common components of ABA including reinforcement, modeling, prompting, and direct instruction to teach social skills. They found that behavioral methods were effective in teaching social skills, and planned reinforcement worked better than natural reinforcement. Both natural and planned modeling and natural and planned prompting were equally effective. They also found that it did not matter whether researchers, teachers, peers, or others provided the instruction; all were equally effective. Problematically, however, individuals other than those with ASD defined the markers of success.

Developmental art therapy. Exploring the whole of developmental art therapy is far beyond the scope of this project; however, as an elaboration of cognitive and

behavioral approaches in art therapy, I will briefly explore how developmental art therapy relates to my research. Developmental art therapy asserts that skills and concepts generally assessed and taught through verbal means can be assessed and taught as effectively—and at times more effectively—through visual art and means or in conjunction with verbal means (F. E. Anderson, 1994; Silver, 2001). Like much of art therapy in its early years, developmental art therapy was influenced by psychoanalytic theories, especially object relations and attachment theory and the cognitive theories of Piaget and Lowenfeld (Aach-Feldman & Kunkle-Miller, 2016). Much subsequent developmental art therapy has focused on attachment, sensory and cognitive development, and how early attachment and sensory-based interaction facilitate later affective, cognitive, and social developmental milestones (Aach-Feldman & Kunkle-Miller, 2016).

G. H. Williams and Wood (1976) were among the first to conceive of developmental art therapy as a means to address developmental disabilities and other developmental issues. They expressed concerns that the influence of behaviorism and special education on therapy with individuals with developmental disabilities might lead to a discounting of affective needs, which is not dissimilar to the criticisms of ABA and CBT. Williams and Wood emphasized art as primarily experiential and facilitative of cognitive gains, expression of emotion, and communication; all of these can help with socialization. Not only can the process of making art assist development in these areas but it also encourages imaginative play with the art objects or as a part of the art-making process, which provide opportunities to practice new skills. Accordingly, art therapists can best facilitate these outcomes by recognizing and accommodating a client's

development stage, particularly by focusing on Piaget and Lowenfeld's models in addition to evaluating attachment styles.

Particularly influential in working with individuals with ASD and specifically in the context of this dissertation's supposition that integrating perseverative interests in treatment of ASD-associated symptoms can help facilitate the therapeutic relationship and better place emphasis on clients' engagement in developing their course of treatment is the adaptive art education writings of F. E. Anderson (1994, 2006). Anderson (2006) began her career in special education, working in a small school and further developing developmental art therapy as it related to her professional experience and her own learning disabilities. Anderson illustrated in detail how to physically adapt art materials for use by clients and/or students with sensorimotor challenges; she also explored how art can be utilized to teach other subject areas, such as math and science. Anderson's (1994, 2006) description of adaptations for her clients' physical as well as cognitive needs relates well to the importance of adaptations of popular culture interests for clients with ASD and how they can be applied to explore clients' needs and goals. Although not from the art therapy literature, the example of Owen Suskind (Suskind, 2014; R. R. Williams, 2016) and his family's willingness to integrate Disney characters and scripts into their everyday lives and Owen's education, as detailed in Chapter 1, provides a vivid example of the principles that Anderson emphasized.

Socially Related Psychological Theories

Due to an emphasis on intrapsychic and individual experience, psychodynamic therapies have tended to treat the person as an isolate while asserting that change occurs from within. In contrast, behaviorism treats individuals as biological organisms

comprised of mechanistic determinants without much concern, it seems, for internal functioning. Although both psychodynamics and behaviorism emphasize reward motivations, their application also puts little attention on relational experiences in the here and now; with psychoanalysis focusing on past relationships and their effects and behaviorism focusing on reinforced behaviors. Perhaps this difference can be explained, in part, by the fact that both psychodynamics and behaviorism began in the early 20th century. Social learning theory and social constructivism initially developed in reaction to psychodynamics, behaviorism, and some cognitive therapies.

Lewin (1935, 1947), one of the founders of social psychology, emphasized the idea that people are in constant interaction with their environments, which influences their development, affects, and behaviors; his theories of group dynamics included the idea that our development is influenced by other people as well as our environments. Another early social theorist, Vygotsky (1978) developed the initial ideas of social constructivist and social learning theory, particularly regarding the influence of social interactions in child development. He conceptualized the process of *scaffolding*, by which children are motivated to learn after being introduced to new concepts that are just out of reach of their existing skill sets. For example, a child might first learn to ride a tricycle, then a bicycle with training wheels, and then a bicycle with no supports. The developmental space where scaffolding occurs is called the *zone of proximal development*, not unlike Winnicott's (1971) concept of potential space. Both scaffolding and potential space are based on learning that occurs within the context of relationships. Most scaffolding situations are constructed by significant others in a child's life, such as parents and teachers.

Although focusing in different areas, Lewin and Vygotsky and other social learning theorists helped set the stage for the development of systems theories. Systemic therapies address and view the problems presented in therapy as inseparable from the person's relationships, and therefore therapy interventions generally focus on the qualities of relationships between the person and the person's family as well as between the person and the therapist (Strevett-Smith, 2010). J. Brown's (1999) theory of family systems, developed in the 1960s, identified patterns of triangulation within family relationships by which family members "team up" against one another. His interest in anxiety within the family relationship led to an understanding that patterns of anxiety and triangulation are passed through generations in families (J. Brown, 1999). He sought to help family members individuate, reduce blaming, and understand their family of origin and the dynamics of that system, including those on the part of the family therapist. Systemic therapies frame therapy as a collaborative process; although there may be one person identified as the patient, it is the collaboration between the person, the therapist, and the family that is believed to produce progress in therapy.

Finally, Bronfenbrenner (2005e) studied systems on a broader scale. He defined systems as relationships within psychosocial, political, and other environments with wide-ranging implications. To address the multiple layers of systems that influence the developing person, he initially developed and named his theory *ecological systems theory* (Bronfenbrenner, 2005c). Later he referred to *bioecological systems theory* to put greater emphasis on the role of genetics in human development (Bronfenbrenner, 2005a.) Bioecological systems theory is a culmination of social theoretical constructs, as described above. Because it is central to my conceptual understanding of individuals with

ASD and their interactions with their environments, I will next review Bronfenbrenner's theory in depth and discuss its relevance to the treatment of the symptoms of autism spectrum disorder. This is arguably more of a framework than a theory or a treatment model; however, I believe Bronfenbrenner's concepts can help clinicians place human development into its psychosocial contexts.

Bioecological Systems Theory and ASD Treatment

Bronfenbrenner's (2005a) bioecological systems theory (BST) examines human development in the context of its surrounding systems and also provides a framework for systemic therapies. BST application and assessment attends to both the quantity and quality of interactions that the individual experiences. BST postulates that individuals develop as a result of their genetic and personal characteristics, coupled with their interaction with their context/environment, which is comprised of a complex set of layered systems from close, such as family, to distant, such as society (Bronfenbrenner, 2005a, 2005b). As an overarching model for therapy and therapy research, BST underscores the importance of considering a person's context and experience, and working within that context and experience to help the person develop new skill sets to address needs.

Principles of ecological systems theory. As discussed above, Bronfenbrenner (2005a) initially developed the ecological theory of human development in the 1970s and later modified the theory to include biological inheritance, a construct that asserts the importance of both nature and nurture on the developing person. Specifically, a person's biology is a genetic inheritance that develops through the influence of society at large while also accounting for the passage of time. Bronfenbrenner (2005a) illustrated the

construct with a diagram of concentric circles that placed the person (and the person's genetic inheritance) in the center, referred to as the "developing person," surrounded by layers of increasingly broader systems with which the person comes into contact (Figure 2).

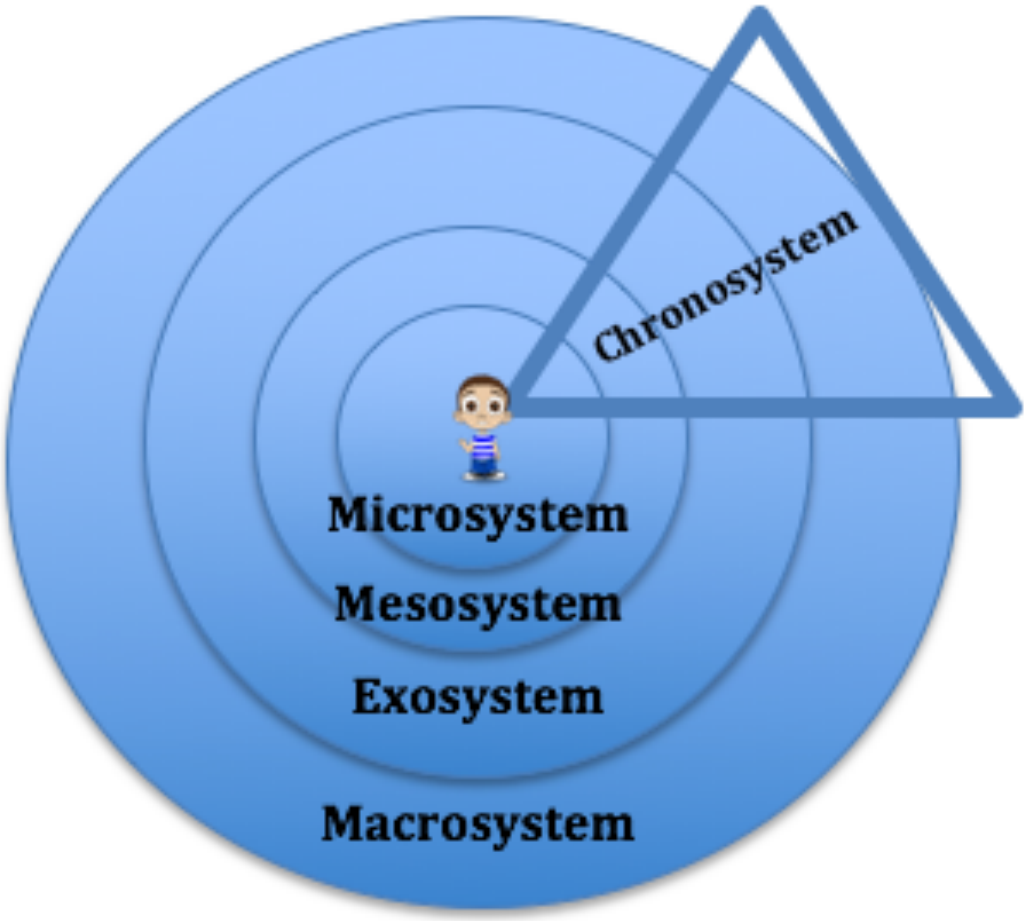


Figure 2. Ecological Systems Theory. Adapted from "What's Bronfenbrenner's Ecological Systems Theory" by Psychology Notes HQ. Online Source. Copyright 2019 by Psychology Notes HQ.

Accordingly, a developing person's subjective and objective experiences of an environment are determining factors in the person's development. This includes how one is able to change and influence one's environment (phenomenological experience) and how one emotionally experiences the situation (experiential experience; Bronfenbrenner,

2005a, p. 5). For example, a baby cries when hungry, a caregiver feeds the baby, and consequently the baby experiences contentment. Crying and feeding are the phenomenological experiences whereas the feelings of contentment represent the experiential.

Proximal processes. In ecological systems theory objective experience is characterized by *proximal processes,* or interactions that occur regularly over time (Bronfenbrenner, 2005a, p. 6). "Proximal" in this sense refers to two interactions occurring within proximity of time, whether these interactions are between two people, or two systems, or a person and a system. This process emphasizes time because the repetition of interactions reinforces learning. This can be likened to Vygotsky's (1978) idea of the zone of proximal development, which Bronfenbrenner (2005a) acknowledged as an influence in his theory.

An example of a proximal process might be that of a mother taking a child to school every morning at 8 a.m. The child knows that the mother can be counted on for this action and that there is time for both the interaction and the learning from her it affords, which taken together fuels the child's development. The proximal process provides space for learning, along with a sense of comfort at the reliability of the situation, reminiscent of earlier object relations, attachment, and family systems theories:

> The form, power, content, and direction of the *proximal processes* producing development vary systematically as a joint function of the characteristics of the *developing person* (including *genetic inheritance*); of the *environment*—both immediate and more remote—in which the processes are taking place; of the nature of the *developmental outcomes* under consideration; and of the continuities

> and changes occurring in the environment over *time*, through the life course, and during the historical period in which the person has lived. (Bronfenbrenner, 2005a, pp. 6–7)

Essentially, the developing person (the individual and the individual's genetic inheritance) interacts with the direct environment/system, as well as more remote environments/systems such as a parent's workplace (see Figure 2), and learns from these interactions over time.

Because children must be challenged to develop, these challenges should get increasingly more difficult over time, to match their developmental maturation (Bronfenbrenner, 2005a) reminiscent of Vygotsky's (1978) concept of scaffolding. According to Bronfenbrenner (2005d), *developmental outcomes* are the sustained pattern of subjective experience or objective behavior. These patterns are self-reinforcing (i.e., something valuable to the person is gained from the subjective experience or objective behavior, and they are often linked to each other). The sustained pattern is different from earlier patterns displayed by the person because it evolves over time. For example, a child may wear Velcro shoes. The child demonstrates a pattern of objective behavior in an ability to put on and fasten these shoes; however, the child next learns to tie shoes with shoelaces by practicing on a model shoe that is not actively being worn. Once the child succeeds, the child gets a new pair of shoes with shoelaces. Although this example is based in observable behavior, it is likely that a subjective thought process evolved as well: maybe from "I like my Velcro shoes" to "no one else has Velcro, and I feel left out" to "I must learn to tie my shoes" and finally to "I can tie my shoes." Bronfenbrenner (2005a) referred to the individual person as a developmental outcome as well, which is

also highlighted in the example of a child becoming increasingly able to have agency through learning.

Bronfenbrenner (2005a) felt that for optimal development to occur a child must have one or more attachment figures with whom feeling is mutual and who are committed to the child's care and progress. When this attachment figure (such as a parent) also has third-party support—such as a partner, grandparent, or community that can provide the person with encouragement and assistance—the attachment relationship with the child grows stronger. Often, the children of caregivers who do not have third-party support are at a higher risk for developmental problems and delinquency (Bronfenbrenner, 2005a). However, if the primary attachment relationship is strong, Bronfenbrenner (2005a) felt that development can proceed optimally without an additional attachment figure or third party. Similar to object relations, attachment, and intersubjectivity theories, Bronfenbrenner (2005a) emphasized that in successful development, the child internalizes caregiver's affection and some of their behaviors.

Systems. The developing person meets multiple interacting systems (see Figure 2). The first is the *microsystem* (Bronfenbrenner, 2005d, p. 81), which refers to the developing person and the person's proximate surroundings, or space where one-on-one, in-person interactions occur. The example of a mother taking a child to school each morning described above is a microsystem interaction.

The second system, the *mesosystem* (the second layer of the diagram, Figure 2; Bronfenbrenner, 2005d, p. 81) is the interaction of multiple microsystems (e.g., interactions between home and school or home and day care). To further illustrate this construct, a mesosystem interaction might include a child who has been punished by a

day care provider for hitting another child. As a result of this incident at day care, the child loses television privileges at home that evening. This consequence is a direct result of the child's behavior at day care and occurs because the day care and home caregivers comprise a mesosystem with internal communication.

The third system is that of the *exosystem* (Bronfenbrenner, 2005d, p. 81). The exosystem encompasses interactions between the developing person's system and another system that does not include the developing person directly but does exert influence on the individual's microsystem (e.g., a parent's workplace). For example, if a mother comes home in a bad mood because work did not go well for her that day, her bad mood might result in her becoming upset with her son when he asks about dinner. The mother's exchange with the child is related to her bad mood brought on by work and represents an exosystem interaction.

The *macrosystem* (Bronfenbrenner, 2005d, p. 81) is the "culture or subculture" in which the developing person lives. The United States is a macrosystem, for example, as is the city or state where the individual resides. Popular culture also represents a macrosystem (e.g., what a child sees on television, in video games, etc.).

The final layer of ecological systems theory is that of the *chronosystem* (Bronfenbrenner, 2005d, p. 82). This layer is sometimes represented as surrounding all of the layers; it is more often depicted in a cross-sectional manner, as it influences each of the other systems. The chronosystem refers to time in two interacting ways. The first is the natural aging of the developing person and the second is historical time (e.g., what things have happened to the person, and when, over the course of the person's development).

Process-person-context-time model. Bronfenbrenner (2005a, 2005d)suggested that development is best measured and understood with a process-person-context-time (PPCT) model. The PPCT model assesses how, who, and what a person interacts with and the influence on one another's development (Bronfenbrenner, 2005a). Hence, in a microsystem–macrosystem interaction, children are influenced by what they watch on television and, correspondingly, what is shown on television is influenced by the number and demographics of the people watching it. An example of a microsystem–mesosystem interaction might be a parent–teacher conference, where a child's structure at home may change because of something that has happened at school and vice versa. The child is a part of both the school microsystem and the home microsystem.

The PPCT model takes into consideration the personal characteristics, including biological and psychological aspects, of the developing person, which Bronfenbrenner (2005a, p. 98) also described as "developmentally instigative characteristics." These characteristics reveal how the person interacts with the system and are composed of personal elements, social elements, and directive beliefs (i.e., beliefs about the self in relationship to the environment; Bronfenbrenner, 2005a, p. 99). Bronfenbrenner and Morris (1998) further articulated these characteristics as force, resource, and demand characteristics. Force represents the person's behavior (e.g., aggressive or passive); resource represents the person's individual abilities based on inherent genetic, physical, and cognitive characteristics; and demand illustrates the person's overall temperament and earned social capital. Therefore, a person who is aggressive, has a low IQ, and has few friends will interact differently with the environment than someone who is assertive, has an average IQ, and has numerous friends.

The PPCT model also factors in the context. Context refers to the environment where the growth happens (Bronfenbrenner & Morris, 1998). The context influences the type of interactions the person will have, such as those occurring in therapy versus those occurring at school or at home. The type of growth in therapy is likely to focus on symptoms of a mental health disorder or relationship problem; growth at school is likely to be academic, with some relationship aspects; and growth at home is likely to be most focused on relational development and self-care, as well as including some academic focus.

Process describes the way the growth occurs (Bronfenbrenner & Morris, 1998). Process examples include traditional lecture-style teaching, experiential art making, emotional support from family members, and countless other examples. Process also includes *proximal processes*, such as the example described previously of a child and mother spending time together in the daily routine of going to school. In this situation, specifically, development occurs through the process elements of consistency and conversation.

Finally, time includes aspects such as chronological age and experiences of the person and the period of time over which the growth occurs (Bronfenbrenner & Morris, 1998). Utilized in the PPCT model, time implies not only longitudinal observation of the developing person but also includes findings from cross-sectional research that compares individuals who have and have not had certain experiences as a part of their development. The former involves observing a child over the course of several months or years and documenting the other factors—person, process, and context—over that time. The latter would require a practitioner or researcher to examine participants who are matched for

similarities and some differences. For example, two 5-year-olds with ASD might both attend private school and be in the fourth grade, but one might have experienced parental divorce and the other might not.

In the PPCT model, the clinician or researcher assesses how identified factors interact and influence each other, with particular attention to the influence of person and context on the process of development, which Bronfenbrenner (2005d) referred to as "interactive moderating and mediating effects" (p. 78). Moderating effects are those that enhance or buffer developmental processes in both positive and negative ways (e.g., a supportive family), and mediating effects are "links in a direct or indirect causal chain" (Bronfenbrenner, 2005d, p. 78). Bronfenbrenner (2005d) described the impact of poverty to illustrate these concepts: A child (developing person) in a low-income family (context) may perform poorly in school (process). The family itself is the context in which development occurs. Poverty might be a mediating, or causal, effect for the conflict in this example, based on the explanation that the lack of buffers (income and other resources) in the situation negatively enhance the school performance (moderating effect). For the child, these mediating and moderating factors have a negative effect on development. Additionally, time influences the effects of poor school performance, both in terms of the age of the child when the poor performance occurs and in terms of the duration of the poor performance. Increased support, however—whether additional family support, financial assistance, a parent getting a new job, a mentoring program at school, or any number of other positive moderating effects—can change the situation (Bronfenbrenner, 2005d).

The context can be changed across systems (Bronfenbrenner, 2005d). Factors of influence in the microsystem are called *proximal mechanisms*, such as when a child's parent gets a new job or receives additional assistance, which in turn changes the child's immediate environment (Bronfenbrenner, 2005d, p. 80). Those factors from other systems are referred to as *distal mechanisms*, such as changes in laws to increase the minimum wage or public support of health care (Bronfenbrenner, 2005d, p. 80). Improved context may result from the motivation for change in order to improve ineffective processes or an acknowledgement of change in the developing person's needs; however, changes in context may also improve the developmental outcomes of the person or process interaction by making conditions better for development.

BST and therapeutic applications.

BST and art therapy. The only reference to BST that I found in the art therapy literature is that of Huss (2009) in her description of culturally sensitive art therapy. Huss utilized BST in her construction of an art therapy framework that would tie the many sometimes-divergent theories of art therapy together (Figure 3). Although a full critique of Huss's alignment of art therapy theories with BST's systems is beyond the scope of this paper, she does present a systemic view of treatment that is highly applicable to the ASD population.

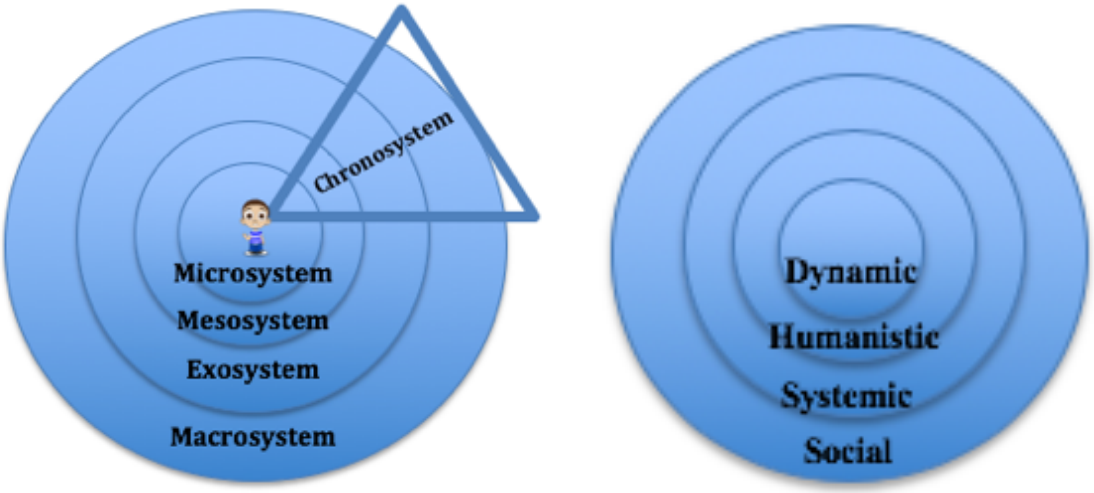


Figure 3. Ecological Systems Theory and Art Therapy Theories Framework. Diagram at left adapted from "What's Bronfenbrenner's Ecological Systems Theory" by Psychology Notes HQ. Online Source. Copyright 2019 by Psychology Notes HQ. Diagram at right adapted from "A Coat of Many Colors: Toward an Integrative Multilayered Model of Art Therapy," by E. Huss, 2009, *The Arts in Psychotherapy*, *36*, p. 156. Copyright 2009 by Elseiver.

Specifically, Huss (2009) articulated a framework that maps dynamic, humanistic, systemic, and social models of art therapy on to the BST model. She emphasized that this mapping represented the role of the art in the art therapeutic relationship; for example, in psychodynamic theories art making is generally understood to foster personal exploration or microsystem-level interaction. Huss suggested that art in humanistic art therapy paralleled the BST mesosystem level in that some social influence is present when working with clients and the art serves to promote understanding of how the environmental contexts affects them. In systemic theories art serves as communication and a stimulus for change within relationships, but this purpose may de-emphasize personal insight in favor of examination of the contexts that influence the individual (Huss, 2009). Therapy that utilizes a systemic theory focuses mostly on relational factors rather than the individual as self-contained unit. This layer, thus, parallels the exosystem

level with its emphasis on the interaction of the developing person's systems with other systems. Finally, Huss's social (community) level parallels the macrosystem, where art therapy may provide a voice to marginalized communities and usually acknowledges the influence of larger societal systems on clients and their concerns. Macrosystemic art therapy approaches put the focus directly on social and cultural elements and contexts but, according to Huss (2009), do not examine personal experiences, at least not in isolation from larger systems. It is worth noting that Kapitan, Litell, and Torres (2011) developed a macrosystem model of art therapy in Nicaragua that explicitly addressed personal, group, and community experiences, which contradicts Huss's assertions.

Huss's (2009) model does not map precisely on Bronfenbrenner's (2005a) bioecological model, given that one could, for instance, view the macrosystem level as systemic and the humanistic level as able to transcend multiple levels. Behavioral and cognitive therapies also are not represented. Arguably, behavioral theories could be located on the macrosystem level because they evaluate how a person behaves in the context of environmental rewards. Cognitive therapies, likewise, are microsystemic in focus, as they represent the client's internal world, whereas the combinational CBT fits within both microsystem and macrosystem. Nevertheless, Huss's model provides insights into how different therapy theories may relate to the BST levels and be applied to address multiple areas of client need.

Systems-based therapies. Bauminger (2002) conducted a study that examined the effectiveness of an intervention that combined an ecological/systems and cognitive-behavioral (specifically psychoeducational) intervention in a sample of 15 Israeli children. As an ecological systems-based intervention, the intervention relied on multiple

types of social agents: parents, teachers, and peers. Clients' microsystem (client), macrosystems (systems involving client), and exosystems (systems of clients' significant others) were engaged. Additionally, interactions of the clients with their peers, their teachers, and their parents (microsystem interactions) were facilitated and, on the macrosystem level, the intervention also included interactions of the parents with the teachers and of the teachers with the peers. Finally, the systems of the teachers and peers (such as home life) and parents (such as work) were taken into account due to their influence on the clients' moods and social interactions. As described earlier, the nature of CBT lends itself to a system approach.

One of the most relevant studies in the literature on a systemic approach to expressive therapy with individuals with ASD was Strevett-Smith's (2010) description of a systemic theory of family therapy as applied to drama therapy. Systemic family therapy traces a person's presenting problems to interpersonal relationships rather than to diagnostic symptoms or intrapsychic states, and emphasizes the role of language (and its metaphorical use) in beliefs and conflicts (MacKinnon & James, 1987; Strevett-Smith, 2010). Systemic family therapy explores power dynamics, oppression and communication, and patterns in families and facilitates externalization of problems. This exploration is often accomplished through stories and narratives (Strevett-Smith, 2010, p. 8).

According to Strevett-Smith (2010), drama therapy is particularly effective working from a systemic model as it often relies on storytelling, role-play, and role reversal to examine family patterns as well as reflection on said patterns, utilizing visual art making to assist in these processes. Drama therapy encourages family members to

take on different roles; for instance, helping a child act as the parent in role-play or vice versa. This process encourages family members to look at their own roles and others' roles from different perspectives. This emphasis is relevant because it mirrors my own approach with the use of popular culture interests with clients with ASDs to promote reflection and processing. Although I am focusing on an individual level, Strevett-Smith's article presents ways that the model I have developed from my study might be adapted to a family or systems context.

In my experience as a clinician, individuals with ASD commonly experience communication difficulties and feelings of rejection. Strevett-Smith (2010) illustrated her use of photography to help a child with ASD communicate with his family. The boy expressed frustration at the different treatment he experienced as compared to his neurotypical sibling and expressed that he did not feel that his parents listened to him. Strevett-Smith facilitated exploration of family dynamics by asking the family to make a photo album in which each family member took pictures that illustrated their experiences in the family. She encouraged the parents to put themselves "in the shoes" of the child with ASD during this process. Her process with this family uncannily mirrors my encouragement of popular culture imagery in art therapy with client with ASDs; the popular culture images facilitated communication of the clients' experience in the same way that the photos did here.

When viewed through the lens of Bronfenbrenner's (2005d) theoretical framework, the family therapy case described above by Strevett-Smith (2010) primarily addressed the microsystem of the immediate family of the child with ASD. However, the therapy also focused on the interactions of each family member and their collective

experiences, representing the mesosystem influences. Arguably, the exosystem interaction of the parents and grandparents (without the child present) was also a factor, as the parents initially refused help from the grandparents, which may have been due to factors that did not directly relate to the child.

Art Therapy's Role in Addressing ASD Symptoms

The largest bodies of research regarding therapies associated with ASD, such as ABA and CBT, suggest that highly structured and short-term therapies are efficacious. These therapies overtly decline to focus on, and at times inadvertently discount, clients' affective aspects and specific desires. However, in my experience, individuals with ASD may benefit more from metaphorical approaches because they already excel in concrete and linear thinking (as this is a primary characteristic of ASD) and they often need practice in open-ended, ambiguous kinds of interaction. Metaphorical approaches encourage interaction in new ways, such as having a dialogue with a client's favorite video game character to encourage social and emotional practice. Also, an artistic metaphorical approach arguably makes concepts more concrete or linear for clients by providing visual material to address in therapy. Furthermore, the CCPT literature indicates that a less structured client-led approach to therapy often is successful. CCPT argues that following the client's lead in building the therapeutic relationship is what makes less structured approaches successful and encourages addressing affective materials. As discussed above, Strevett-Smith (2010) provided an example of a systemic family therapy approach within a drama therapy context. The use of photography to empower the family and particularly the child with ASD illustrates how art can promote client engagement and agency within the therapy setting. This approach is similar to the

use of popular culture that I describe within the art therapy context. The following exploration focuses on systemic factors, relationship building, client agency, and sociopolitical factors in art therapy with individuals with ASD.

Systemic Factors in Art Therapy With Individuals With ASD

Although not BST-specific, Schweizer et al. (2014) and Schweizer, Spreen, and Knorth (2017) placed importance on the systems aspects of art therapy treatment with clients with ASD. Schweizer et al. (2017), in their interviews of eight art therapists who worked in the Netherlands with individuals with ASD, asked for detailed descriptions of their settings and referral sources for art therapy. They also noted setting and referral source in their meta review of associated literature (Schweizer et al., 2014) on the settings and referral sources for art therapy, finding that of the 18 reviewed articles, 10 involved art therapy in school settings, two in psychiatric settings (inpatient and outpatient), two in private practice, one in an art studio, and the others in unknown settings. The authors identified other systems or contextual factors of importance, including goals of art therapy ranging from work on social skills and self-empowerment to self-regulation and sensory integration, all of which influence social relationships. Similarly, Van Lith, Stallings, and Harris (2017) placed importance on the systems of the client with ASD, in the form of the setting of therapy, finding that most often art therapy was occurring in a school context. With respect to relationship-oriented goals, they noted that social skills were the most frequent art therapy goals reported by the 14 U.S. art therapists they surveyed. Other important goals included behavioral regulation, sensory integration, communication/visual supports, and emotional regulation similar to those identified by Schweizer et al. (2014, 2017). These interviews and research reviews indicate the

importance of various systemic factors in art therapy with clients with ASD. I will next review these factors in the context of the BST model.

Mesosystem of client and therapist. The therapeutic relationship is by nature a mesosystem composed of the microsystem of the client and the microsystem of the therapist. Assessment of the therapeutic behavior of the therapist in the study by Schweizer et al. (2014) identified the importance of attunement to the client, which often involved client-centered sessions where the therapist provided additional structure as needed. Such attunement contributed to creating a welcoming therapeutic environment. The authors also noted multiple examples of therapists providing scaffolding (Vygotsky, 1978) for clients as well as engagement in joint attention, such as "gradually introducing new materials and directions" (Schweizer et al., 2014, p. 589) and providing imaginative themes and symbols to build on clients' existing repertoire. Other important areas of effective therapist behavior with clients with ASDs included structuring time and activity, sharing experiences (joint attention and/or encouraging requests for support), and assisting clients in putting words to experiences (Schweizer et al., 2017).

In her description of art therapy treatment with individuals with ASD, Martin (2009) identified the art created in session as an object of joint attention on which the child and therapist can both focus. Martin (2008) illustrated these observations in a small study utilizing portraiture in which she asked children with ASD to draw her portrait while she also drew theirs. She hypothesized that this exercise would encourage the therapeutic relationship by promoting a focus on the therapist rather than other objects, and by providing the participants with an opportunity to become comfortable with

looking at a therapist and potentially making eye contact without having the pressure to actively socialize.

Dolphin et al. (2014) acknowledged the power of art to promote child–therapist attachment and attunement when working within an intersubjective space. Durrani (2014), although not specifically writing about intersubjectivity, illustrated the use of sensory-based art therapy with a 12-year-old with ASD and mirroring the child's choices and movements to facilitate attachment. She observed increased self-regulation as the attachment relationship developed, supporting the assertions of Martin (2008, 2009) and also lending support to the concept of the interactive square (Bragge & Fenner, 2009) as described above.

Systemic properties of art therapy expression. The mesosystem of the therapeutic relationship is further influenced by materials included within the relationship. The art therapists in the study by Schweizer et al. (2017) reported that their clients' art therapy process utilized a wide range of material that helped with developing flexibility, coping, self-esteem, focus, and planning skills. Schweizer et al. (2017) pointed out systemic properties of art therapy expression, observing that art therapy "means and expression" (p. 3) encompassed art supplies, forms, motifs, and thematic content found in client artwork. The authors' earlier analysis of the literature (Schweizer et al., 2014) indicated that participating in art therapy generally expanded clients' means and forms of expression by supporting them in moving from limited media comfort to a wider range and decreasing or elaborating on stereotypical images (such as RRBs). This expanded repertoire also appeared to facilitate both verbal and nonverbal communication (Schweizer et al., 2014). As an example, art therapists surveyed by Van Lith, Stallings, &

Eliot Harris (2017) noted the importance of consistency, loose structure, and following the client's lead in sessions. These art therapists also identified the use of metaphor as a powerful tool when they worked with individuals with ASD, particularly if combined with the clients' specific special interests; for example, utilizing Minecraft to understand emotions.

Martin (2009), based on her clinical experience, noted that art therapy may be particularly successful at addressing tactile defensiveness and sensory-based regression and dysregulation in children with ASD because of the potential to "experiment and compromise with the child" (p. 73). Martin (2009) suggested doing this by presenting children with a variety of materials with "a variety of textures, pressures (applied to different materials) scents and sounds" (p. 74). Art therapists, in the context of the therapeutic relationship, are able to identify which materials can help clients self-regulate by identifying which ones match clients' sensory state and which are counter to it. For instance, within the microsystem a child may be under-stimulated and having difficulty in class related to that under-stimulation, such as not paying attention and being disruptive in order to meet the child's own sensory needs. In such a case, a highly sensory experience before going to class may help the child to better pay attention. An art therapist functioning within the mesosystem of the therapeutic relationship can identify the need for a sensory experience to promote sensory regulation.

This concept was illustrated further by case studies by Kuo and Plavnick (2015) and Kearns (2004), where they implemented antecedent-based intervention with children on the spectrum. Antecedent-based intervention refers to the implementation of an art therapy intervention to preempt later problematic behavior; techniques may include

sensory activities, such as finger painting and clay use (Kearns, 2004), or activities that require intensive focus and concentration, as in placing beads on string (Kuo & Plavnick, 2015), immediately prior to classroom instruction. These interventions improved the children's ability to focus when compared to the baseline.

Popular Media and Culture in Art Therapy

Historically, when media and materials have been discussed in the literature of art therapy and clients with ASD, it has been most often in the context of sensory media/sensory exploration (Betts et al., 2014; Durrani, 2014; Isserow, 2008, 2013; Kearns, 2004; Kuo & Plavnick, 2015; Martin, 2008, 2009; Regev & Snir, 2013) and drawing and traditional art media (Isserow, 2008; Martin, 2008; Richard et al., 2015; Van Lith, Stallings, & Eliot Harris, 2017); these discussions have less frequently included electronic and other popular media (Henley, 2018; Van Lith, Stallings, & Eliot Harris, 2017). Twenty years ago, Kramer, Williams, Henley, and Gerity (1997) speculated that the pervasive influence of television at the time affected parent engagement with their children. The authors asserted that the utilization of "electronic babysitters" such as TV and video games led to children and adults with dependent personalities and inherent inabilities to self-soothe, form relationships, or fully understand the environments they lived in without instant gratification from electronic media. Kramer et al. suggested "that art therapists may be able to help children as well as their young parents to transcend the seduction of technology by introducing them to tangible art materials" (1997, p. 108). The authors theorized that popular electronic media had become substitutes for imagination, relationships, and self-esteem, and therefore they led to a need for instant gratification and an inability to work through problems.

In the intervening years between the observations of Kramer et al. (1997) and the present day, digital media have become ubiquitous in the lives of both art therapists and their clients. Looking at a snapshot of technology use in the year 2018, the pervasiveness of technology in U.S. life is clear. Pew Research Center conducts frequent surveys to examine the use of technology among U.S. teens. It found that in 2018, 95% of a representative sample (ages 13–17) reported access to a smartphone, and 45% were constantly online (M. Anderson & Jiang, 2018). These data represent a significant increase from a survey just 4 years earlier, when only 73% had access to a smartphone and 24% reported an online presence (M. Anderson & Jiang, 2018). I have observed in my own practice in the last 5 years, in individuals with and without ASD, that problems related to smartphones, computers, tablets, and social media use have become paramount with preteen and teenage clients; many times, the problems relate to access/allowed use and risky behavior, such as talking with strangers or sending nude photos to these people.

Much online participation is on social media platforms. The most popular is YouTube, with 85% of survey participants reporting regular use (M. Anderson & Jiang, 2018). YouTube gives people the ability to upload any video content of their choice and make that content accessible web-wide. Content ranges from television shows and movies to videos of people playing video games to explicit adult-content videos. At this time, all of my clients use YouTube and most of them elect to watch videos of others playing video games. They also may use it for other content such as watching sports or learning about preferred toys. Unfortunately, an innocent search on YouTube can turn up developmentally inappropriate content. One child with ASD I worked with watched fan fiction videos and became very disturbed by one featuring a My Little Pony dissecting

another Pony (which has since been removed from the site). This same child also once told me that he learned to interact with others by reading YouTube comments, which in turn led to him cursing and calling people names.

Due to the pervasiveness of digital and social media outlets, art therapists must decide whether to include digital media and popular culture in their practice or exclude it. Orr (2005, 2010, 2012, 2016) has examined and analyzed trends of technology use within the field of art therapy in recent years. In 2005, Orr observed that the increased use of technology among the general population suggested that it is wise to integrate technology into art therapy practice, but at the same time she claimed that art therapists were adopting technology (e.g., computers, tablets, smartphones) at rates lower than the general population. However, by 2011 Orr observed that art therapists had caught up to the general population in technology adoption and use. Orr (2016) compared the initial hesitancy among art therapists to their slow adoption of photography during the first 30 years of the profession, when they focused more on traditional drawing, painting, and sculpting as art media of choice.

Kapitan (2007) postulated that art therapists' distress with digital media may be due to being caught up in the fine art world sentiment that has devalued digital art in favor of traditional media such as drawing and painting: "Traditional art media are regarded by some as more therapeutic than anything produced on the computer or in non-traditional environments" (p. 50). Carlton (2014) made similar observations, reporting that, after reviewing related literature, it appeared that art therapists were slow to adopt new media because of historic resistance to "'synthetic' new media" and the preference for "traditional art forms" (p. 42). She also noted that cost and a lack of training

prevented some art therapists from adopting digital technology. She observed that digitalization had grown since the dawn of the TV age and that newly trained art therapists were likely steeped in it. My experience as an art therapist very much fits these reports: I obtained my master's degree in 2005 at the age of 25 and had been utilizing computers for 20 years at that point. As a faculty member in an art therapy program, I have also observed an increasing number of students with digital art degrees throughout my 10 years of teaching.

Gerity (2001) wrote that she and her supervisees observed that clients and other children they knew were exhibiting demands to be passively entertained, were restlessness, and had a preference for electronic activities such as video games and television, and also complained of boredom when these demands were not met. According to Gerity, this desire for near-constant entertainment leads to feelings of emptiness in both adults and children. She emphasized that the virtual "seductive environment" provides a challenge for art therapists in client engagement as well as for clients in everyday life (Gerity, 2001, p. 44). These concerns have some validation, as research demonstrates changes in brain function related to exposure to technology, both in early (Vandewater et al., 2006) and late (Small, Moody, Siddarth, & Bookheimer, 2009) life. Therefore, art therapists in practice are challenged to adapt and integrate the positive aspects of technology use and counter the negative influences (Kapitan, 2009). Gerity emphasized the need for art therapy and art spaces themselves to provide a transitional space between the popular culture media experience, the immediate environment, and the inner self. She chose to accomplish this by continuing to use traditional media rather than adopting digital media.

Klorer (2009) supported the idea of keeping the art therapy session a technology-free space. She asserted that art therapists must acknowledge and address the detriments technology could have, particularly on children and adolescent clients. She had observed increased attentional and interpersonal difficulties in her clients, which she saw as stemming from frequent use of technology and increased interaction via social media and text messages rather than by speaking in person or by telephone. Orr (2010) noted idiosyncrasies in clients' use of digital media for social interaction, observing that digital media can simultaneously decrease and increase social isolation.

Klorer (2009) strove to assist clients in striking a balance between technological interaction and one-on-one, in-person interaction. She saw danger in the use of technology in the session where "art becomes another imitative shorthand that echoes the world the child lives in" (Klorer, 2009, p. 82), rather than providing an enriching and engaging experience for the child or adolescent client. Klorer, like Gerity (2001), utilized the art therapy session as a transitional space. On the other hand, Thong (2007) concluded, as Parker-Bell (1999) had, that digital art making was valid for therapeutic use and can promote the therapeutic relationship, particularly with individuals who have experienced tactile aversions and with digital natives (those who have used technology from a young age; Prensky, 2001). Thong observed in her professional experience that children were just as successful in their therapeutic goals when using digital media as when using traditional media.

Orr (2010) asserted that digital media are no different than other media, as they serve as a mediator for the creation of art just as paint, drawing, and sculpture do. Digital art media open possibilities beyond what traditional art media can offer (Orr, 2016), such

as with user-friendly animation and virtual reality. Digital art media allow clients to explore a range of media characteristics (e.g., drawing, painting, and sculpting) without requiring direct access to those media—and they provide "an abbreviated version of the whole psyche" (Thong, 2007, p. 58). Visual technology (e.g., online image searches) has expanded the availability of source material for artwork, and programs like Photoshop have opened up what clients can do with the images they gather (Henley, 2018), providing instant gratification and inspiration for finding and sharing desired images.

Potash (2009) examined the potential positive effects of popular media in art therapy with adolescents through the transformation of popular images into personally meaningful images, but he also acknowledged that the instant gratification and passivity encouraged by popular culture and media can damage client interactions and social skills, citing examples from his own practice. Digital media promote an instantaneous, often visual, omnipresent popular/consumer culture, which has both good and bad sides (Orr, 2010). Potash reasoned that "given the power of images, art therapists may be in a unique position to examine the impact of pop culture on adolescents and explore ways to mitigate it, if necessary" (2009, p. 52). This claim presupposes that the art produced in therapy provides similar metaphorical and distancing experiences as popular media but that the presence of an empathizing adult, the art therapist, and the creation of an art image assist in creating therapeutic change. Potash referenced Dunn-Snow (1993) as being among the first to examine the potential positive influence of popular media when therapists work with children in her example of *Teenage Mutant Ninja Turtles* as a metaphor for confronting thoughts and feelings "experienced in the course of growing

up" (p. 102). Art therapists can harness the constant bombardment of visual culture (Orr, 2010), putting to use the metaphors that Potash and Dunn-Snow recognized.

Austin (2009) also saw the art therapy session as a space where this content could be worked through; however, in his perspective, computer media is fully therapeutic as art media. Although different from traditional art media, the interaction of a client with digital media still has the potential to provide opportunities that are not possible by traditional means alone. Like Potash (2009), Austin asserted that because art therapists are proficient in metaphor and fantasy, they may be more equipped to deal with the potential impacts of technology, such as processing violent images. However, Austin suggested that art therapists go beyond facilitating the use of the imagery to create digital art and process conflicts related to digital media exposure.

Reviewing the literature, which only began in the first decade of the 21st century to examine digital technology impacts on art therapy, I reflected that I was trained in art therapy around the same time, in 2005. I am a digital native and have used a computer in some fashion for nearly as long as I can remember. I have witnessed a disparity generationally among many art therapists, which is to be expected; however, even some of my peers did not have the early computer exposure I had. I have also observed that those who grew up without this exposure are much more resistant to technology integration than I am. Compared to 10 years ago, current students are much more likely to be comfortable with digital media and have a desire to integrate digital media into their practice. My current child and adolescent clients also warm up to me quickly when I encourage them to share their favorite video game or YouTube video with me. Perhaps, as Orr (2010) reasoned, digital media now are ubiquitous and therefore many people

integrate these media into their personal identity: gamer, programmer, YouTuber, etc. If a therapist recognizes and validates these identities, it can assist in developing relationships with clients.

More recently, art therapists have encouraged the use of video games and films, or their content, within the therapy session. C. Brown and Garner (2017) reported that video games in therapy can break down resistance for adolescents and argued that video gaming is "artistic expression" (p. 193), although the level of artistic expression is dependent on the type of video game. In working with individuals with ASD, I have also used video games in therapy sessions and found that offering the space to discuss the games can be therapeutic for clients. For example, one child liked to play Bendy and the Ink Machine (2008), a horror video game with many jump scares. Playing this game in session afforded opportunities for problem-solving, discussing ways to work through aggression other than physical violence, and even practicing social skills, as when a child engages in doing a voice for the main character and the therapist voices a side character.

Popular Media and Culture in Art Therapy With Individuals With ASD

Humburg and Wolf Bordonaro (2017) and Wolf Bordonaro, Stallings, and Humburg (2017) described the use of popular film in art therapy with individuals on the autism spectrum. Humburg (2016) developed a directive guide targeting the areas articulated by Betts et al. (2014) to include cognitive growth, emotional regulation, adaptive behavioral styles, and physical development as possible goals for interventions based on popular films. Van Lith, Stallings, Harris, and Campbell (2017) detailed implementation of an eight-session group intervention for individuals on the spectrum, describing a case where one participant centered his art expression on the character Oh

from the movie *Home*. Utilizing this character appeared to increase the participant's comfort in the group and assist him in relating to his peers.

Although in his earlier work he emphasized the problems technology could cause clients (Kramer et al., 1997), Henley (2018) has since accepted the need for art therapists to adapt to cultural trends and has noted that the pervasiveness of digital technology in clients' and therapists' lives goes far beyond anything he could have ever predicted. He has asserted that video games and television problematically normalize aggression and violence, but also has contended that art therapists can offer a holding space in which to work through this material. He has emphasized the importance of parental and therapist engagement and guidance to ensure safety and continued social engagement as well as prevention of addictive behavior and disconnection from reality.

Henley (2018) recognized both positive and negative aspects in gaming and social media, noted by art therapists and non-art therapists alike. He acknowledged the potential for talking about and imitating video games and other pop culture media in providing an avenue for social connection: "With such tools at their disposal, technology has given children on the spectrum potentially a new and forceful voice" (Henley, 2018, p. 155). He also pointed out these topics as ways to build therapeutic rapport with individuals with ASD and reported that he does so by showing benign interest in individuals' cultural interests (e.g., anime characters, video games) to build the relationship. He did not encourage artwork focusing on these topics but also did not discourage it. He cautioned that the inclusion of technology in session can both increase and decrease creativity and must be monitored and shaped by the art therapist, such as encouraging a client to come

up with original stories about preferred characters rather than perseverating on drawing one pre-existing scene.

Henley (2018) recognized that "even the most severe child on the autistic continuum appropriates the 'visual culture' that surrounds him" (p. 161). Individuals with ASD create their own meaning for these images amidst their obsessions, as Potash (2009) identified with neurotypical teenagers. This absorption of visual culture may provide neurodivergent individuals "an advantage in the future" (Henley, 2018, p. 162). There is thus some support in the literature for digital technology providing an extension of the self and a sense of safety for individuals with ASD. Media such as cameras and smartphones may offer a gateway to artistic creation as well as a distance from environments that are overwhelming or uncomfortable, which can be put to creative use in art therapy, for example by helping a client practice a social situation by interacting with a picture of it.

Henley (2018) theorized that electronics such as smartphones may actually be in a kind of "symbiotic" relationship with individuals with ASD, providing a "bridge or precursor to actual relating" (p. 155). Art therapists can help assist navigation of this transitional space. I have frequently done so by asking clients with ASD to draw problems or issues they are having and then substitute their favorite popular culture figures, which provides a metaphorical distance for working through the situation. Relatedly, Henley (2018) recognized that many individuals on the spectrum identify with powerful characters that provide feelings of power and protection. The art therapist can shape this identification with popular media therapeutically, which was the crux of my study. In my experience this engagement of client interests, especially through digital

media, encourages client agency and investment in the art therapy session and builds the therapeutic relationship.

Sociopolitical Influences on Art Therapy Outcomes With Individuals With ASD

A consistent pattern exists in the art therapy literature regarding individuals with ASD: The art therapist identifies and describes goals and assesses outcomes and rarely mentions the clients' perspectives. The most commonly mentioned outcomes of art therapy with individuals with ASD are improvements in communication (Betts et al., 2014; Isserow, 2008; Martin, 2008, 2009; Regev & Snir, 2013), improved emotional expression (Betts et al., 2014; Durrani, 2014; Elkis-Abuhoff, 2008; Martin, 2008, 2009; Regev & Snir, 2013), improved self-image (Betts et al., 2014; Elkis-Abuhoff, 2008, 2009; Regev & Snir, 2013), greater flexibility of thought and behavior (Betts et al., 2014; Regev & Snir, 2013; Schweizer, 1997), greater behavioral control (Betts et al., 2014; Schweizer et al., 2014), and physical development (such as hand-eye coordination; Betts et al., 2014).

It is rare that art therapists discuss the role the client with ASD has in determining the course of therapy and the therapeutic outcomes. However, two case studies published by Elkis-Abuhoff (2008, 2009) offer some discussion of client involvement. Working in a private practice setting with individual clients, she focused on the micro- and mesosystem levels of two adolescents with ASD while promoting self-insight as well as the practice of social skills. Elkis-Abuhoff encouraged her clients to explore their interests and to include them in collages. Additionally, she encouraged and reinforced social skills such as asking for supplies and expressing feelings related to the collage process and joint attention on the therapeutic process. The use of collage also invited macrosystem-related

materials, included but not limited to popular culture collage material. Henley (1989, 2018) and Van Lith, Stallings, and Eliot Harris (2017) also provided case examples encouraging use of popular culture in engagement of clients with ASDs. The direct engagement of client interests and encouragement of personal agency in the therapy process described in these cases aligns with the functions of popular culture within the art therapy processes that I delineate later in this dissertation.

Regev and Snir (2013) also described inclusion and expansion of perseverative repertoire within the art therapy session: "This broadening of the repertoire could take the form of the way the [art] material was used or it could refer to the children's ability to vary, enrich and develop a narrative through a repeated image" (p. 257). Here Regev and Snir acknowledge the potential for clients to use perseverative interests to tell a story, which is particularly relevant to my research. In my experience integration of perseverative interests allows for client autonomy within the art therapy setting by respecting clients' preferred subjects. However, this is one of the less frequent observations in the art therapy literature.

Conclusion

Individuals with ASD often perseverate on special interests. This literature review and my own clinical experience have documented frequent perseverations on popular culture phenomena. Henley (1989) recognized the importance of acknowledging these interests and not discouraging art based on these perseverations, as they provide a window into the client's "salient concerns" (p. 53). The fascination with popular culture phenomena among individuals with ASD makes it necessary for therapists to engage them across the layers of systems within bioecological theory, with particular emphasis

on the macrosystem influences on the client as these may provide a gateway to the therapeutic relationship and therapeutic process. The willingness of the therapist to work with macrosystem material provides a bridge to the neurodivergent world of the client through intersubjective encouragement of joint attention and ability to work within the client's chosen metaphor within the mesosystem interaction of client and therapist. The therapist's action as a metaphoretician (Moon, 2007) with clients with ASD facilitates the therapeutic relationship and the achievement of therapeutic goals. Acting in this way as an art therapist provides clients with ASD, regardless of age, input and control over their therapy, which also address the advocacy concerns of ASAN and others in the neurodiversity movement.

Many early art therapists discouraged the inclusion of popular culture imagery in art therapy (Potash, 2009); however, its inclusion today is an important avenue to successful therapy with individuals on the spectrum. Therapists can use such imagery as an opportunity for relationship development and deeper communication in a population that has difficulty with communication and social interaction. Art therapists can use bioecological systems theory productively as a framework to provide opportunities for connections on a microsystem level while acknowledging the influence of mesosystems, exosystems, macrosystems, and chronosystems.

The following chapters detail my grounded theory study of the role of perseverative popular culture interests in art therapy with individuals with autism spectrum disorder through a BST lens and the resulting creative portfolio. I chose to undertake this exploration with BST as the underlying theoretical structure because it allowed for and encouraged my exploration of how these interests function in the

microsystem of the client and within the mesosystem of the therapeutic relationship, as well as how the larger systems context of locations where art therapy is practiced might influence the application of my findings (exosystem factors). Additionally, I took under consideration how I could best integrate a neurodiversity perspective, as a neurotypical person, seeking input and feedback from individuals who are themselves neurodivergent.

CHAPTER 3: PROJECT DESIGN AND ETHICAL CONSIDERATIONS

This chapter presents the methodology of the study, including descriptions of the retrospective, observational grounded theory, and walk-through interview methods of data collection and grounded theory analysis. These sections are followed with ethical and validity considerations for this study. Study results are presented in Chapter 4.

Methodology

This project began years before I ever sought to complete a doctoral degree. As described in the introduction and case vignette featured on the website (see Appendix A), I had observed repeatedly over time that my clients with ASD appeared to build relationships using their perseverative interests, which are one of the hallmarks of ASD. Upon further reflection, it seemed to me that more often than not these interests consisted of television shows and movies; video games; YouTube content; and, on some occasions, sports teams or athletes and church experiences—all things that fit into the broader category of popular culture. For the purposes of the study I defined popular culture as arts and entertainment, associated cultural beliefs gained through exposure at least in part in public settings, and hobbies (toys, games, books, etc.) of the larger society—whether neighborhood, city, state, or country—within which a person lives.

Based on my experiences as a clinician, I elected to construct a dissemination project from the results of a qualitative observational study I conducted that involved retrospective observational (Mann, 2003) and grounded theory methods (Birks & Mills, 2015; Charmaz, 2014) to explore the role of perseverative popular culture interests in building and facilitating the therapeutic relationship with individuals with ASD. I reasoned that these methods were most appropriate given my desire to explore and

identify how popular culture perseverative interests functioned in the art therapeutic relationship. The relative absence of the use of perseverative interests in the art therapy literature suggested to me that it was necessary to first create a formal practice theory before attempting to examine the effectiveness of working in this way with experimental or outcomes study methods. Therefore, I sought to address the following research question: How are art therapists uniquely able to build a relationship on the terms of the person who is neurodivergent? My retrospective qualitative study sought to develop a practice theory and facilitative therapeutic framework derived from the integration of client popular culture special interests into art therapy in order to contextualize how art therapists are uniquely able to build relationships on neurodivergent individuals' terms.

Data Collection

Figure 4 contextualizes my data collection within the larger grounded theory methodology of the study. Data collection had three main sources: (a) an archive of clinical case notes produced from direct observation of clients with ASD who participated in art therapy, (b) a review of archival footage from the art therapy documentary I produced, and (c) direct observation of an individuals with ASD in a naturalistic setting outside of the therapy structure. The latter was structured as a videotaped "go-along" or "walk-through" interview with an 11-year-old with ASD. This data collection method from ethnography facilitates naturalistic observation of research participants in their environment (Kusenbach, 2003, 2016) and is a "hybrid of participant observation and interviewing" (Kusenbach, 2016, p. 154) whereby participants dictate the setting as the researcher accompanies them in their daily routine. In this case, I spent unstructured time with my participant during his afterschool routine at his mother's

home. The naturalistic format allowed me to observe as well as ask questions when necessary. My purpose was to observe the prevalence, or lack thereof, of perseverative interests in the person's daily functioning and social navigation.

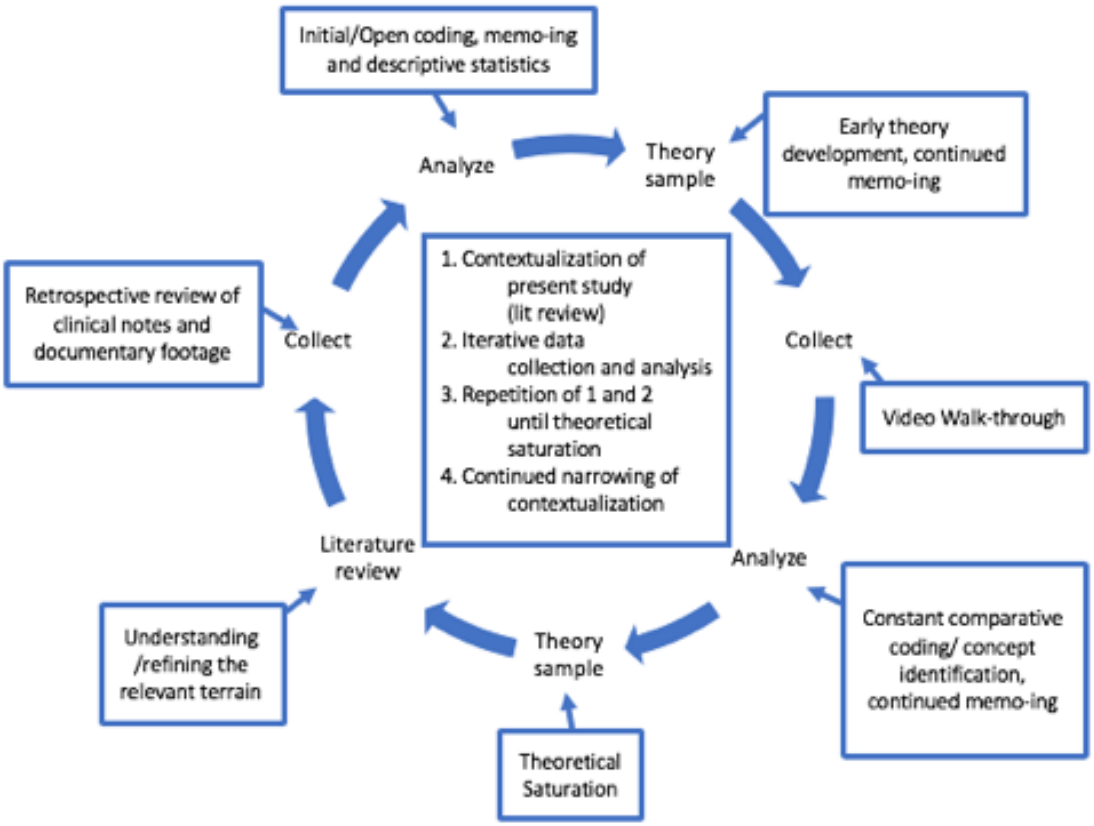


Figure 4. Grounded Theory as Utilized in the Present Study

The walk-through interview provided a particularly important source of direct observation of an individual's lived experience in that it collected information from the client's perspective. As such, it offered a window into the neurodivergent world of an individual person in his ordinary, daily life context. In contrast, my clinical case notes—although important as systematically produced clinical documentation—were written from my own empathetic yet neurotypical perspective as a therapist. Thus, these two data

sources provided a means of triangulating data to strengthen the study's validity and claims.

Additionally, I decided to retrospectively review video clips from an advocacy film project that I had completed in January 2018. Because the retrospective review of case notes was from my private practice work, encompassing the years 2011–2018, the video data from the 2017–2018 film project provided a current source that documented additional encounters with the phenomenon of interest. I applied to Mount Mary University's Institutional Review Board for approval of my study and received approval in November 2018.

Participants and Participant Data

Retrospective notes. The case notes were already in my possession and did not require new sessions or direct contact with previous clients. First, I reviewed all case files to determine which were relevant and/or formatted in a way that allowed me to identify whether popular culture references had been made in sessions. This meant that I had to eliminate notes from clients who had received applied behavior analysis due to their required formatting. These notes included little in the way of narrative and consisted primarily of behavioral charts, such as counted incidents of performing requested behaviors, self-care skills, and the like. Thus, I eliminated notes for five clients, four of whom had Level 3 ASD diagnoses and one with a Level 2 diagnosis. I also eliminated notes from one family therapy case because it focused on the entire family and its functioning and therefore offered little in the way of understanding the individual child, who appeared to have a Level 1 diagnosis. As a result of this process of elimination, my sample comprised eight art therapy and counseling clients with ASD, two of whom were

adults and six of whom were children. The six children all qualified for Level 1 or Level 2 ASD diagnoses. One adult had a Level 1 diagnosis and the other a Level 3 diagnosis. Informed consent was not required due to the archival nature of this study and the anonymization of the data; however, in cases where I provided more in-depth examples based on actual clients, I obtained informed consent for use of this information (Appendix B).

Archival video data. As mentioned above, I also reviewed video footage already in my possession from an advocacy and education project on the use of art therapy with individuals with ASD (a link to a portion of the footage can be found in Appendix C). The video included footage of groups of individuals on the spectrum and others with other developmental disabilities, individuals without ASDs, an individual under the age of 10 with ASD, an adult with ASD, a mother of a child with ASD, multiple service providers for individuals with ASD, a state representative, and faculty in an art therapy graduate program. Because my intent was to observe individuals with ASD for their interaction patterns as well as to look at progress in art therapy services, I narrowed my examination of the video data to two individuals with ASD, the group of individuals with ASD, and the mother of the child with ASD. Video footage was obtained and used with the informed consent of all participants (Appendix D).

Walk-through interview participant and procedure. For the live interview, I utilized purposive sampling, which seeks participants who have specific characteristics relevant to the study (de Chesnay & Fisher, 2015), in this case individuals with ASD. Selection criteria required that participants could be any age and have a diagnosis of ASD, any level.

To recruit the participant, I contacted acquaintances and friends who had family members with ASD and asked whether they could recommend someone they knew who might be interested in participation. Next, I utilized e-mail and Facebook messenger to contact the families of three potential participants. The messages I sent included a brief description of the study and an invitation to the families to request further information. I heard back from one of the three families I contacted. None of the families were families of clients, as I sought to work with someone who was not specifically familiar with my professional work in order to start from a more neutral place with the walk-through interview. This contact led to the participation of Tommy (pseudonym), an 11-year-old boy with a diagnosis of ASD, Level 1 (as reported by his parents). After reviewing together the forms and description I sent, Tommy's mother and father, who are divorced, each agreed separately by e-mail to allow him to participate in the interview, and his mother also sent me scanned copies of the signed consent form. Tommy also agreed to participate after receiving informed consent (Appendix E).

The walk-through interview was videotaped in the participant's home under the supervision of his mother just after dinnertime on a weeknight. When I arrived, I reviewed the study procedures with Tommy and his mother and they both verbally consented to participation. Tommy, his mother, and his younger sibling were present, although his mother and sibling were often in the adjacent room and only occasionally interacted with me and Tommy. I encouraged Tommy to direct how and wherever he wanted the walk-through interview to occur; it primarily took place in the kitchen and living room of his mother's home, with him occasionally leaving the room to gather Legos and other toys he wished to show and discuss with me. In keeping with naturalistic

data collection goals, I allowed Tommy to direct the focus and flow of his interactions with me and his environment, all of which was videotaped for later data analysis.

Data collected from the video of the walk-through interview was organized as follows. In parallel fashion to the retrospective review of case notes, I viewed the raw footage and marked incidents of popular culture perseverations, defined here as interactions based in popular culture where Tommy engaged in explaining and demonstrating his interests without showing reciprocal interests in me, the researcher. Tommy shared several interests that were all related and integrated with one another and he did not ask any social questions about me, which is common in a child with autism spectrum disorder. These incidents were edited into 20-minute excerpts that illustrated Tommy's interactions that occurred during the walk-through interview and as representative of similar perseverative interests I have observed in many other children in practice. These excerpts can be found in Appendix F.

Data Analysis

I utilized grounded theory methods, as described by Birks and Mills (2015), to analyze the entire collection of observational data. First, I conducted open coding and categorizing of data from my clinical notes to locate words and phrases that mentioned popular culture. Concurrently, I coded footage from the advocacy film and the video of the walk-through interview for the same. I categorized according to utterances, phrases, and visual appearances of popular culture elements, highlighting these observations either directly, on copies of the notes, or through video editing to eliminate extraneous video content that was either redundant or not applicable.

Compared to my clinical files from my years as an ABA consultant (which I eventually eliminated from the data set, as mentioned earlier, due to their format limitations), my counseling and art therapy files were more fruitful for identifying ways that popular culture functioned for my clients and in my practice. In my initial coding, identifying instances of the presence of popular culture within these data categories served as incident-by-incident coding (Charmaz, 2014). Charmaz (2014) explained, "Here you compare incident with incident, then as your ideas take hold, compare incidents to your conceptualization of incidents coded earlier" (p. 128). I divided these incidents into three broad codes: (a) presence of popular culture, (b) communicating with popular culture, and (c) presence of popular culture–inspired interaction.

Next, I continued analysis with theoretical sampling, which is an iterative process that adds "the most information-rich sources of data to meet [one's] analytical needs" (Birks & Mills, 2015, p. 11), that is, adding data sources until a full range of the concepts that make up the emerging theory is represented (Kapitan, 2018). Thus, I eliminated clinical notes and video footage that did not possess relevant information regarding popular culture–based interactions in session. I also supplemented the grounded theory analysis with descriptive statistics of the clinical data so I that could identify the frequency of the inclusion of popular culture, and therefore gain a sense of how commonly it occurred. For example, I found that approximately 50% of my notes included popular culture references. This additional analysis provided a bias check to ensure that I was not exaggerating the patterns I had observed and recorded in my notes. I did not do this same statistical analysis for the video data, however, as this would have

required a more complicated breakdown of the videos, which was unnecessary for the scope of this study.

As I worked with the case files, I noted that I had utilized a minimal note-writing style at the time of their creation, writing just a few lines or a couple of paragraphs. Thus, it is possible that there were more instances of the phenomenon in the art therapy sessions documented that did not make it into the notes. I recall that I also had limited my descriptions of these and similar aspects of treatment out of concern at the time that they could be viewed as unfavorable by agency auditors; for example, I often described therapeutic outcomes from the inclusion of popular culture references rather than a description of the inclusion itself.

Concurrent with collecting and analyzing data, I wrote analytic memos to keep track of the process by which I arrived at a category or discoveries of meaning (Birks & Mills, 2015; Kapitan, 2018). These memos were kept on my laptop and also shared in password-protected (and participant anonymized) blog posts addressed to my research committee and other research consultants. The memos were useful in the continued analysis of data.

Grounded theory analysis proceeds from initial and open coding to an intermediate process called constant comparative coding (Birks & Mills, 2015). In this process, I compared the codes identified initially in my clinical notes to codes from the video material. Figure 5 shows an example of how the initial three categories (presence of popular culture, communicating with popular culture, and presence of popular culture–inspired interaction) yielded new clusters of categories based on comparing data from the advocacy video and my clinical notes prior to IRB approval for the walk-through

interview data collection component of my study. These new categories, seen in the bottom row of the figure, served as my first attempt at identifying a core category or categories.

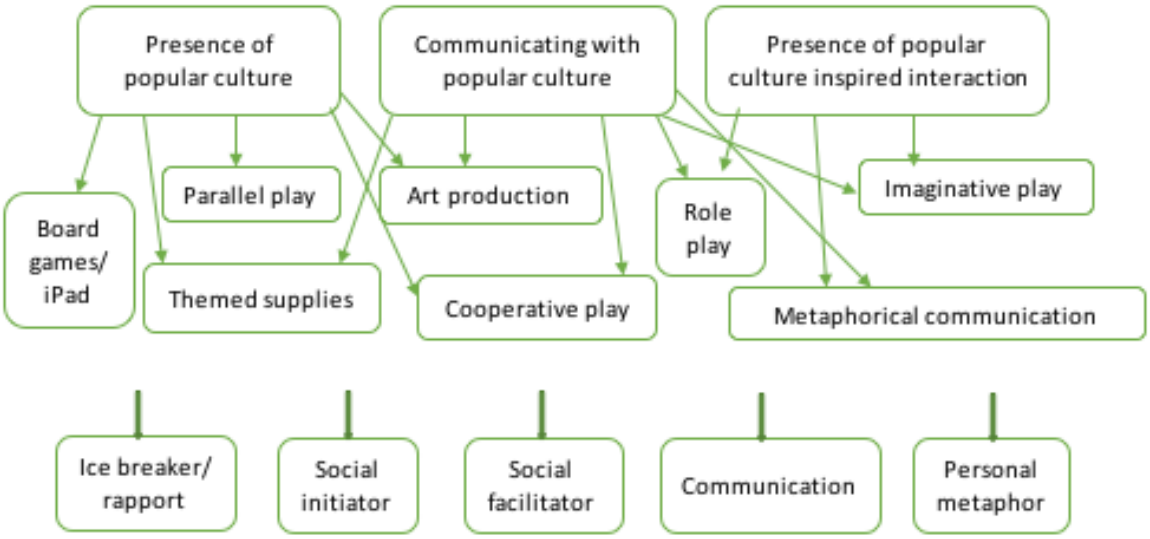
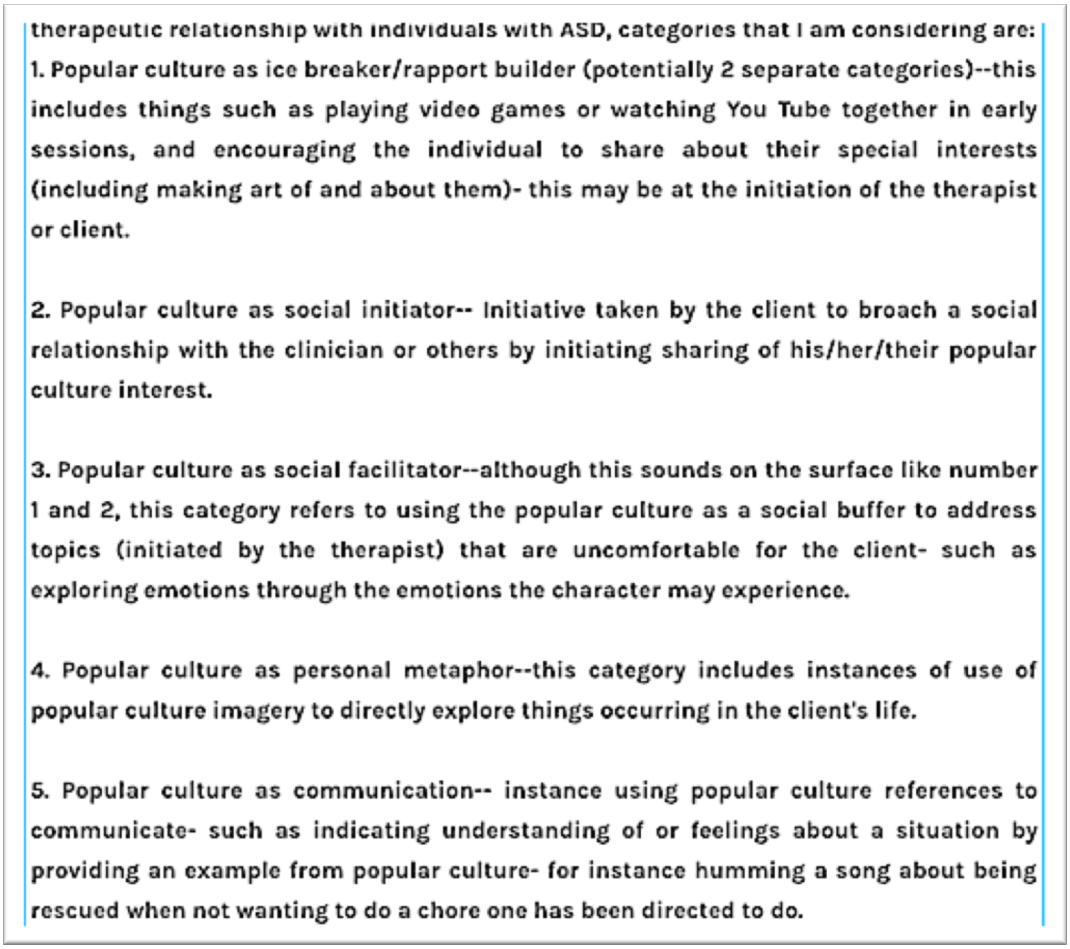


Figure 5. From Categories to Concepts

By this stage of data analysis, I had begun to notice the multiple ways that popular culture appeared in the data (see, e.g., Figure 6). Theoretical or axial coding occurs when the researcher is able to start looking at the data as a whole to identify higher order ideas that link the categories into a meaningful theoretical framework (Kapitan, 2018). I began to theorize the functionality of the popular culture interactions of the participants in my sample. I elaborated on the definitions of these categories in my research blog, which I shared with my committee for feedback and bias checking.

Once I gathered the additional video data from the walk-through interview, I resumed comparison of data, now focusing on all three sources. Upon further comparison, I was able to collapse the ideas of "popular culture as ice breaker/rapport builder" into "popular culture as social initiator." I also recognized a pattern of popular

culture as anxiety mediator, that is, as serving as a coping skill or primer for specifically addressing symptoms of anxiety.


therapeutic relationship with individuals with ASD, categories that I am considering are:
1. Popular culture as ice breaker/rapport builder (potentially 2 separate categories)--this includes things such as playing video games or watching You Tube together in early sessions, and encouraging the individual to share about their special interests (including making art of and about them)- this may be at the initiation of the therapist or client.

2. Popular culture as social initiator-- Initiative taken by the client to broach a social relationship with the clinician or others by initiating sharing of his/her/their popular culture interest.

3. Popular culture as social facilitator--although this sounds on the surface like number 1 and 2, this category refers to using the popular culture as a social buffer to address topics (initiated by the therapist) that are uncomfortable for the client- such as exploring emotions through the emotions the character may experience.

4. Popular culture as personal metaphor--this category includes instances of use of popular culture imagery to directly explore things occurring in the client's life.

5. Popular culture as communication-- instance using popular culture references to communicate- such as indicating understanding of or feelings about a situation by providing an example from popular culture- for instance humming a song about being rescued when not wanting to do a chore one has been directed to do.

Figure 6. Concepts/Theoretical Coding

I further revised these categories to more accurately represent my observations and to articulate practice theory around the manifestations of popular culture perseverations within the therapeutic relationship. This coding revision included the categories of (a) behavioral reward, (b) social initiator, (c) social facilitator, (d) personal metaphor, (e) anxiety mediator, and (f) communication clarifier.

All six of these patterns had appeared in my clinical notes. However, in the video of the walk-through interview I identified only the social initiator and social facilitator

patterns. This result may be due to the particulars of the setting where Tommy and I met (seated at a table in his mother's apartment, which was his choice based on comfort level). I did encourage him to show me what he would usually do on a day after school and I believe he did so. However, this structure did not afford opportunities for him to show how he would behave in situations where he might be uncomfortable (other than in terms of meeting me, a relative stranger). Additionally, I did not know Tommy well enough to identify whether he was displaying any personal metaphors, although it is possible those were present. By comparison, the patterns present in the advocacy video footage included social initiation, social facilitation, personal metaphor, anxiety mediation, and communication clarifier through popular culture elements. Selected video clips, some from the walk-through interview and others from advocacy and clinical footage, illustrating these concepts can be seen on the website I created, which I will describe in Chapter 4.

After this final iteration of constant comparison, I wrote a case vignette to illustrate the role of popular culture with clients (Appendix A) based on the emergent grounded theory identified. The case vignette is fictionalized from my experience with clients with ASD. In the vignette, I described how popular culture functioned (or did not) within treatment of ASD-associated symptoms and needs. Although I did not articulate which of the above categories was referenced in the vignette, I am confident that a reader can identify them from the context. The writing of this case vignette provided me the opportunity to clarify my thinking around the development of practice theory and begin working toward the creation of a facilitative framework for practice based on it. In Chapter 4, I will describe these results in detail.

Ethical and Validity Considerations

Ethics of Online Dissemination of Results

An ethical decision that required detailed consideration related to the video-facilitated components of the study that were intended to be disseminated online to increase their access and use by various stakeholders, including therapists, families and clients, public policy setters, funders, and educators. As a clinician who has worked with individuals with ASD for more than 15 years, I am invested in accessibility of services and the education of stakeholders in practice-based evidence for treatment alternatives to applied behavior analysis. Most if not all of my clients with ASD diagnoses were referred immediately to ABA upon diagnosis. In contrast, far fewer clients and families received referrals for mental health services for the individuals with ASD and/or their family members. The strain that having a child with ASD often causes in a family is well documented (Sim et al., 2018) and the prevalence of co-occurring anxiety disorders in individuals with ASD is also well documented (Kreslins et al., 2015; Sze & Wood, 2007) indicating a need for systems, cognitive-based, and affective-based mental health services in addition to the always-recommended behavioral services. Therefore, a public-facing website that is accessible to anyone who can find it through an online search or word of mouth is important for education about available and needed services. The World Wide Web is ubiquitous (M. Anderson & Jiang, 2018) and generally the first source that many people consult when learning about a new subject. Although the online format may remove the assumption of confidentiality for participants, this risk must be balanced against the potential for increasing the likelihood that a greater number of people will

learn of the needs of individuals with ASD and the benefits of art therapy for this population.

As the Internet and Internet research are complex and ever-changing, it is impossible to have an ethical code to dictate exactly what constitutes ethical research in every situation (Convery & Cox, 2012; Kapitan, 2018). Therefore, Convery and Cox (2012) proposed the use of "negotiated ethics," meaning that the specific research and proposed methods must be considered in deciding whether the research benefits outweigh the risks. For instance, participants in my study and their parents were informed about both the inherent absence of confidentiality, due to the website dissemination and associated risks, and the opportunities for advocacy for neurodivergent communities. The consent of every participant in my study was carefully negotiated with the participant and with the participant's parents or guardians, if applicable. In addition to assurances that participation was voluntary, each participant consented to the use of their imagery, voices, or artwork as part of public advocacy for increasing service accessibility through sharing their stories.

Validity and Limitations

Limitations. The research design produced data from my clinical work and observations alone. Therefore, to reduce investigator bias, I sought to triangulate with several distinct data sources and perspectives (i.e., both the neurotypical clinician's, in the form of clinical notes, and the neurodivergent participant's, in the form of videotaped interaction). The inclusion of only one walk-through interview participant further limited the possibility of additional triangulation; however, time constraints and the volume of footage produced necessitated the limited sample size. The minimal style of clinical note

writing I used may have obscured additional instances of popular culture content in sessions, especially in light of vivid memories of interactions with my adult clients, but no specific documentation of such interactions. Despite my advocacy for an integrated approach, in the past I was careful to not overemphasize the role of these pop culture–based interactions in my notes because I worried that funders, especially Medicaid, would frown upon or be confused by their inclusion.

Additionally, the participant I was able to recruit for the walk-through interview had a Level 1 diagnosis; individuals with this level of diagnosis sometimes experience less of the restricted repetitive behavior components of ASD (APA, 2013) that are implicated in popular culture perseverations. Nevertheless, I observed some of these characteristics in my participant.

Validity of research methods. I constructed a qualitative observational study that involved retrospective observational (Mann, 2003) and grounded theory methods (Charmaz, 2014) to address my research question. Trustworthiness is the primary factor in determining the validity and worth of naturalistic observational studies such as this one (Guba, 1981). Guba (1981) identified four aspects that can help to assess the trustworthiness of a study: (a) creditability, (b) transferability, (c) dependability, and (d) confirmability.

Credibility is in essence internal validity; the study results must make sense "with the real contexts and perspectives of the people studied" (Kapitan, 2018, p. 137). I made efforts to bolster credibility through triangulation of data and consultation with participants, through the inclusion of a committee member who identifies as Autistic and

through directly disseminating results on the Internet and providing my contact information so others can weigh in on the validity of my findings.

Transferability refers to the generalizability of findings to other situations and to "build on knowledge" (Kapitan, 2018, p. 137). I addressed this aspect through triangulation of data sources and public sharing of the information to invite testing of generalizability. Also, in constructing the infographics (detailed in Chapter 4), I provided considerations for applying the theory built from these results across a variety of systems.

Dependability relates to the use of a well-explained, systematic, reproduceable research process (Kapitan, 2018). I carefully followed grounded theory methods and analysis as described by Birks and Mills (2015), Charmaz (2014), and Kapitan (2018), as well as retrospective observation methods as described by Mann (2003) and walk through methods as described by Kusenbach (2003, 2016). I have described the way in which I applied these methods in detail in this document to facilitate replicability by other art therapists as well as to be transparent about my procedures.

Finally, confirmability means "the results derive from the participants and their experiences rather than from the ideas or preferences of the researcher" (Kapitan, 2018, p. 137). I addressed confirmability through the use of interviews and direct naturalistic observation, as well as my clinical notes. Although these have been filtered through my perspective, I attempted to report what I saw and heard from my clients and research participants, not what I wanted to see. The constant comparative nature of grounded theory analysis assisted in checking for my biases and confirming my observations.

Summary

In this chapter, I described the qualitative methodology used in my study, including a combination of qualitative observational methods and grounded theory

methods of data collection and analysis. These methods supported the intention of the study to assess the usefulness of popular culture perseverations to build the therapeutic relationship in art therapy with individuals with ASDs, informed by the experience of clients and participants with ASD. The following chapter details the study results and the practice theory and facilitative framework I developed based on those results.

CHAPTER 4: STUDY RESULTS AND THE CREATIVE PORTFOLIO

Introduction

This project and accompanying contextual essay sought evidence in support of integrating perseverative interests derived from popular culture into art therapy with individuals with autism spectrum disorder. A practice-led research design was utilized to reveal how art therapy facilitates the adaptation of these perseverations and popular culture references into personally meaningful metaphors and interactions. The study outcomes also demonstrate relationship building in art therapy that is based on self-agency and acceptance of neurodivergent perspectives to drive treatment. To these ends, I organized the project materials and outcomes as a portfolio of creative works on a publicly accessible website. Project information, videos from the study, infographics, and other useful resources, thus, can be accessed by various stakeholders (e.g., individuals and client advocates, family members, therapists, agency personnel, and funders) to understand and support individuals with ASD and ease their burden of advocating for change in how they are perceived in the world. Finally, this study contributes to the development of a facilitative framework that can be applied and tested in later efficacy and effectiveness studies.

In this chapter I will first present the grounded theory results of the study and subsequent development of the facilitative framework. I will then review sections of the website described above, which disseminates the results including the advocacy videos, case vignette, and infographics I created to illustrate the findings and advocate for their application. I will conclude this chapter with a summary of the results and provide recommendations for how they can be applied to art therapy practice.

Study Results and Facilitative Framework

As described in Chapter 3, I conducted a retrospective review of clinical notes from my private practice, first as an applied behavior analysis consultant and provider and then as an art therapist and counselor, from 2011 to 2018 in a small city in the central United States. I ultimately reviewed the files of eight clients with ASD (six children/adolescents and two adults). Of the 350 notes I reviewed, 187 mentioned popular culture in some form. I categorized these mentions and assessed their functions within the context of the documented therapeutic interactions, which I will discuss later in this chapter. All categorical references to popular culture appeared in the notes on sessions with six clients who ranged in age from 7 to 15 and had diagnoses of either Level 1 or Level 2 ASD. In contrast, my notes on sessions with two adult clients (in their twenties and thirties, one with Level 1 ASD and one with Level 3 ASD) did not include any mentions of popular culture (Figure 7).

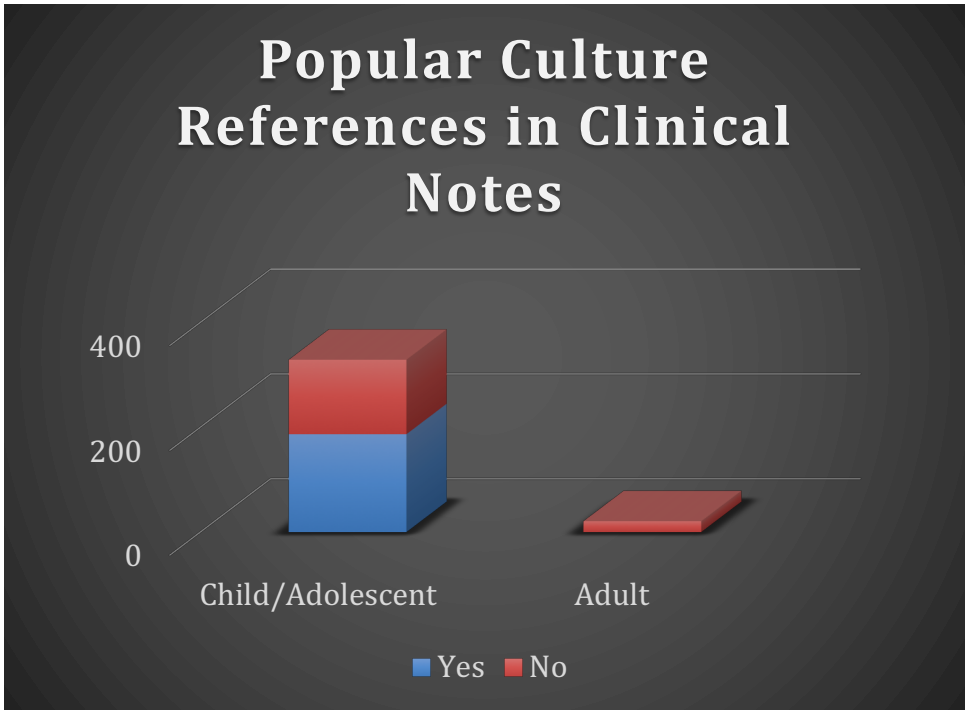


Figure 7. Popular Culture References in Clinical Notes

This does not necessarily mean that popular culture–based interactions did not occur with the adult clients but rather that I did not directly document them in my notes and, therefore, their interactions were not available as data in this study. Another relevant point here is that I had no fewer than 30 sessions with each of the clients under 18 years of age, whereas I had an average of only 10 sessions with the clients older than 18. Age and/or number of sessions are variables that may have influenced the content of the sessions. Although these descriptive statistics were unnecessary in grounded theory analysis, calculating them assisted me in assessing whether further exploration of this observation was warranted.

Employment of Popular Culture in Art Therapy Practice With Clients with ASD

As described in Chapter 2, for the 187 clinical notes that included popular culture references, I identified codes and further subdivided these into categories of description. I then reviewed the footage from the documentary I produced in early 2018 entitled *Art Therapy: The Missing Piece* to identify patterns of popular culture inclusion. Finally, I conducted the walk-through interview and reviewed the associated video. In this chapter I will present the final iteration of categories from which I derived a practice theory on the employment of popular culture in neurodivergent art therapy interactions, which describes the functions of popular culture in fostering therapeutic relationships with individuals with ASDs. This practice theory will serve as the basis for a larger theory, Neurodiversity Bridge Theory, which I plan to continue to develop after completion of this dissertation. The six categories are as follows: (a) popular culture as behavioral reward, (b) popular culture as social initiator, (c) popular culture as social facilitator, (d) popular culture as personal metaphor, (e) popular culture as anxiety mediator, and (f)

popular culture as communication clarifier. In the subsections that follow I will define and provide examples of these categories. Video examples can be found in Appendix G.

Popular culture as behavioral reward. The finding that popular culture may be used as a behavioral reward refers to its therapeutic function of encouraging desired behaviors. Generic examples include offering a desired sticker, watching YouTube, and playing video games as rewards for performing desired behaviors. A specific example was the clinical note "earned clinician's iPad" after a client had participated in a non-preferred activity, which in this case was an emotions identification game. In another instance a client worked on processing the death of his great-grandmother and discussed his fear of wasps, and as a result earned the opportunity to play a train simulator app. One client earned a reward of a toy Hot Wheels car for his participation in an activity that practiced anxiety-coping skills.

Although I did not specifically evaluate the notes from ABA sessions due to their structure, I recall that many of the rewards utilized in these sessions included playing apps on an iPad and drawing pictures of favorite popular culture characters or other imagery. I also observed this reward phenomenon in the video footage from the walk-through interview: Tommy showed me his favorite art piece that he had created and, as a result, was rewarded with an opportunity to play a game on my iPad, which is included in the video I compiled to illustrate this component of the theory.

Popular culture as social initiator. This category refers to the phenomenon of using popular culture to initiate social relationships by sharing interests. This most often involved the client sharing their preferred topics/interests with the clinician; however, this behavior may occur in the other direction as well. Examples include co-participation by

client and therapist in video games, watching YouTube videos together, and joint attention on artwork created about popular culture. One particular client, who had a co-occurring diagnosis of a severe anxiety disorder, would not speak to me; however, it was clear from my clinical documentation that I could capture his attention and participation in the therapy session through the use of Avengers toys and Lego kits. The first such instance occurred when I asked him to show me his favorite Avengers figurine at an in-home session. He went to his room and grabbed a bag, rummaging through it until he found his favorite figure. We had later interactions by either playing side by side with Avengers Legos or constructing Avengers Lego sets. In another incident reference in my clinical notes, a client drew his favorite video game characters to introduce himself to a new intern who was observing the session. This concept is illustrated in the theory video with an excerpt of Tommy demonstrating his favorite Lego builds as a way of introducing himself to me.

Popular culture as social facilitator. This category encompasses the use of popular culture as a social buffer to address topics that may be uncomfortable for the client. This may include actions such as creating artwork and comic strips and role-play with preferred characters to engage in non-preferred topics, such as getting in trouble or dealing with grief. Popular culture perseverations may also be deployed to identify and process relevant emotions or build coping skills through a character's example. For instance, according to my clinical notes I asked one client to create images of calm and anger, with the goal of anger management. The client created these images and then stated that the calm image was a "real" image whereas the anger image was from a TV

show. This child certainly had many "real" examples of anger but was more comfortable discussing and describing this feeling through a reference to his preferred TV show.

Another client created images of horses from *My Little Pony* being blown up by creepers from Minecraft. On this day, his mother reported that his younger sibling had broken some of his things. As this child sometimes preferred to communicate through writing, I wrote him a note asking if he ever wanted to blow things up. He wrote in reply "maybe," but then crossed the word out. When asked, he agreed that "maybe" was how he really felt but that "no" was how he felt he was supposed to answer. In the theory video, I included a clip of the participant sharing with me the videos he had made and me asking him if he had ever showed these videos to his great-grandfather, who had recently died, which provided us a segue to talk about their relationship.

Popular culture as personal metaphor. I found that popular culture was often utilized as a personal metaphor, particularly to resolve conflict through role-play or artwork. This component of the grounded theory includes the therapist's encouragement of clients creating personal metaphors based in their perseverative interests. In one example from my clinical notes, to address anxiety and incidents of bullying with a client who perseverated on the weather, he created a sculpture of a tornado out of Model Magic and then scattered pieces of Model Magic around it. He then acted out the post-tornado clean up with the words "FEMA or Red Cross." Another client participated in creative play featuring a suicidal criminal. When I asked where the suicidal criminal lived, the client provided his address and gave other details about the criminal that matched his own. I role-played that I was the police and the criminal's family was coming to help him. The client was then able to participate in a conversation about his own suicidal

feelings, to contract for safety, and to articulate what his family could do to help him. In a follow-up session, the client said he no longer wanted to harm himself after he repeated a similar play scenario with more positive outcomes.

A third client shared concerns over the election of President Donald Trump, expressing fears that his friends would be deported. He was able to work through these fears by drawing pictures of his favorite video game characters confronting a bully. This same client later faked being sick in order to skip school. He was unwilling to address this behavior directly but was able to role-play one of his favorite YouTube characters and talk about why that character hated school (although, to my knowledge, that character was not portrayed as being in school). I also observed the use of popular culture as a personal metaphor in a video role-play that a client requested to make during an art therapy session. I obtained permission from his mother to include the video in my dissertation and on my website. These two examples illustrate the child's use of a favorite video game to process a new medical diagnosis, and his orchestrating slow-motion crashes of a toy train when upset about an intern who was leaving for the summer.

Popular culture as anxiety mediator. This category refers to participation in popular culture–themed interactions during or prior to processing anxiety, whether directly or indirectly. These interactions may include the use of special interests as coping skills or as a primer for addressing root anxiety. As an example, I documented in my case notes an incident where a client created a storm kit—a kit that included a flashlight, snacks, and other supplies for use while waiting out a tornado in a storm shelter—while discussing his fear of storms. He was then able to identify a special interest of his—Greek mythology—that he could use as a coping skill, and reported that he planned to tell

himself that storms were “Zeus throwing lightning at Hades.” According to my notes, he also accepted my suggestion that the thunder could be noise from Zeus stomping whenever he missed.

Another client began drawing pictures of robots being dismantled based on his favorite video game. While doing so, he began to talk about his fears about dying in surgery, because he was going to have his tonsils out in the near future. In our following session he was still worried about surgery and continued to draw pictures of this game while I explained more about his upcoming surgery. I documented that he listened, answered my questions, and reported feeling better afterward. In video footage from a young client working through the absence of an intern (who was on vacation), the child fashioned a doll to resemble a broken animatronic from the video game Five Nights at Freddy’s. He ripped and tore at the doll for several minutes before verbalizing that he was upset about the intern’s absence.

Popular culture as communication clarifier. Finally, I found that the use of popular culture can indicate a client’s understanding of a concept. Concepts may include feelings or social rules or other things that may be necessary to define or explain. In one instance, a client participated in creative play that resembled a discussion we had had regarding possible hospitalization for aggressive behavior that he had shown toward his younger sibling. The client “hospitalized” a toy squirrel and had a toy cat treat the squirrel for his destructive behavior (he had developed these characters previously, based on a video game and cartoon). The squirrel had destroyed a Lego town that the client had built with an art therapy intern. The child then announced that the squirrel had been successfully treated and would not be so destructive in the future. In the video illustrating

the theory, I utilized a clip from the documentary that features a young adult with ASD discussing how he used Legos to help demonstrate concepts he was learning in school; in this case, a build representing a Roman tribunal.

Summary. Taken together, these findings offer a practice theory for how popular culture can be employed in art therapy as a way to facilitate the therapeutic relationship while considering the preferences and interests of the client with ASD. Encouraging expression through imagery with which the client is comfortable, rather than dismissing such imagery as stereotypical, facilitates relationship building and progress in art therapy. Similarly, allowing and even encouraging playing video games or watching YouTube videos together can also assist in building therapeutic rapport. Based on these grounded theory results, I developed a facilitative framework, described below, that can guide art therapists to use popular culture materials and images in their practices.

The Facilitative Framework

As identified in the literature review, art therapists historically have been hesitant to include popular culture elements, especially techno-digital culture artifacts such as video games and YouTube videos, in their practice. This hesitance, or at times resistance, seems to relate to a variety of concerns that include a lack of familiarity with the media (Austin, 2009; C. Brown & Garner, 2017; Kapitan, 2007; Orr, 2005) and subject matter (Henley, 2018), and a desire to provide a technology-free space for clients who lead technology-saturated lives (Gerity, 2001; Klorer, 2009; Kramer, 1971; Kramer et al., 1997). Reluctance also may be due to limitations of the systems in which art therapists work that may not allow use of video games or computers while in session, or art therapist concerns over repetitive stereotyped imagery. However, ignoring or refusing to

include such elements in work with neurodivergent clients may actually delay or impede the development of the therapeutic relationship because of the differences in how neurodivergent individuals think and interact as compared to neurotypical individuals. Support for this claim can be found in research that suggests that perseverative interests are correlated with sensory under- and overstimulation (Liss et al., 2006) and provide the client with a way to cope with these uncomfortable sensory feelings. Research also suggests that engaging perseverative interests in social situations increases social motivation (Boyd et al., 2007; Vismara & Lyons, 2007).

From these and other research studies, it is reasonable to suggest that engaging with clients with ASD through their perseverative interests can be advantageous in therapy. My research also supports this claim. If an art therapist can create a bridge to neurodivergent clients' realities by showing interest in their perseverations rather than requiring them to show interest in art materials and topics they may lack a natural interest in, the relationship is likely to develop more quickly and on clients' own terms. Popular culture elements, thus, facilitate the relationship and assist in meeting therapeutic goals.

Because my goal was to integrate grounded theory from my study into a facilitative framework, I was advised to develop a dissemination format that could close the research-to-practice gap by making my study findings accessible to art therapists working with neurodivergent individuals. Canoutas, Hart, and Zan (2012) recommended presenting research findings in ways that increase the likelihood that findings will be taken up and used. Therefore, I decided to present my findings as infographics (Figures 8, 9, & 10), which is a visual format that is becoming increasingly popular for distributing information in the public health realm (Featherstone, 2014). An infographic is a form of

knowledge assemblage that transforms data into visually accessible graphics and limited text to convey information quickly and succinctly (Featherstone, 2014; Nediger, 2018). I chose this format for its effectiveness in communicating the most relevant elements of my theory and providing suggestions for why and how to adapt the theory into art therapy practice.

The first infographic (Figure 8), entitled "Considerations for Pop Culture Inclusion With Your Clients," details the benefits and drawbacks of including popular culture in art therapy with clients. This infographic also provides the general outline of my practice theory, including the six functions of popular culture in therapeutic interactions. The second infographic, "Employing Pop Culture in Art Therapy Interactions," provides definitions and examples of the six functions of pop culture in art therapy with clients with ASDs (Figure 9). Finally, the third infographic, "Considerations for Use of Pop Culture Across Settings" (Figure 10) integrates a systems perspective by presenting considerations across treatment settings where art therapists may practice, acknowledging that art therapy is practiced in a variety of settings with different rules and regulations.

Figure 8. Infographic: Considerations for Pop Culture Inclusion With Your Clients

Figure 9. Infographic: Employing Pop Culture in Art Therapy Interactions

Figure 10. Infographic: Considerations for Use of Pop Culture Across Settings

As presented in the infographics, I described only a loose structure for the inclusion of popular culture interests in art therapy practice and allowed that these interests do not have to be perseverative for the client. Much of what I recommend and describe will likely work for a strong interest or identification that does not reach the observed obsessive levels of a perseverative interest. I chose to keep the structure loose so that individual art therapists, influenced by their specific clients, can use these tools as guidelines to best suit their practice. I reason that these three infographics present a facilitative framework precisely because of their guided but loose structure and lack of specifically dictated procedures and practices. Art therapists will be able to visually access, freely download from the website, and integrate these suggestions into their own practice style, rather than having to follow a rigid formula that I have dictated.

For the purposes of professional development and post-master's clinical knowledge, art therapists seek out books and articles where possible, but sometimes quick and simple suggestions are easier to integrate into practice. The infographics take just a couple of minutes to read and the video is only 8 minutes long. These formats are therefore more time friendly to a busy clinician. Moreover, they help to close the research–practice gap in that uptake of my research findings and their integration into practice may be facilitated in this way (Kapitan, 2018). The infographics provide the basic details of my grounded theory in a format that could be easily handed out at a table at a conference or downloaded from the Internet. I have displayed them online on my public website to encourage easy access, distribution, and sharing.

By making the infographics public and freely available, I hope to encourage art therapists to consider the value of their clients' popular culture interests in session. To

that end, I also created a companion video that illustrates each of the potential manifestations of popular culture interactions and sessions with individuals with ASD (see Appendix G). Art therapists and related professionals may discover repetitive interests in popular culture as a bridge for connection, rather than a problem to be overcome, and use it to focus on the strengths of neurodiversity.

Utilizing the Internet to disseminate my facilitative framework for professionals is a strategy that takes into account the relative lack of art therapy resources to assist in this area, especially when much of the information that could be most helpful is behind pay walls or otherwise available for purchase. Additionally, it is still common to find information that focuses on deficits rather than client strengths, and little that promotes the importance of neurodiversity. With the growth of online special interest groups and social media platforms, dissemination becomes ever more possible. For instance, art therapists looking for information on working with neurodivergent clients in art therapy may come across my website (described below) and navigate to popular culture applications in treatment from the "Information for Art Therapists" link on the home page. This would lead them directly to the infographics and associated video. Within a matter of 15 to 20 minutes an art therapist could learn enough about neurodiversity to possess a basic grasp of how partnering with neurodivergent clients in their popular culture perseverative interests may benefit their therapeutic relationships— a first step to appreciating the strengths of neurodivergent ways of thinking. Additionally, they could navigate to an additional resource page if they had the time and resources to do so.

An added benefit of online dissemination is that this information will also be available to neurodivergent individuals who may have never heard of art therapy and who

then may investigate art therapy as a possible therapeutic avenue. Other stakeholders include third-party payers and agencies considering inclusion of art therapy. The information in the infographics is written in such a way that these viewers could see the benefits of art therapy in their settings without having to know much about it. The next section of this chapter includes images of the website and information on the content of each page.

Dissemination of the Project Results: Website

Rationale

The many materials and products from my study project require their dissemination to be maximally accessible to art therapists, neurodivergent individuals, and other stakeholders in the provision of services and care. As described earlier, my intent with this broad availability contrasts with traditional dissemination through academic and professional trade publications that demand paywalls and other restrictions, such as professional membership. Thus, the website serves as a form of advocacy for my neurodivergent clients and others like them, as well for their families and for the larger field of art therapy. Art therapy as treatment for ASD-associated symptoms is not widespread, despite growing evidence that it should be (Autism Society of America & American Art Therapy Association, 2012; Schweizer et al., 2014).

For these reasons, I sought to increase the likelihood that individuals who search online for art therapy, neurodiversity, ASD, and other keywords could come across my website. Search optimization also increases the odds that such viewers will become educated about art therapy and how it can address ASD symptoms, and therefore know to seek or advocate for these services for themselves and others. The dissemination of

research evidence through realms accessed by public policy makers, funding sources, government agents, and the public "is what turns art therapy research into services for clients" (Kapitan, 2018, p. 112).

Moreover, I recognized that my clients engage in techno-digital media frequently, and therefore it stands to reason that using techno-digital media as a dissemination platform for the study products would be logical and necessary. The website is designed from a perspective of valuing neurodiversity, which is a major premise of the project. Emphasizing the view that autism is not necessarily a medical pathology or disorder, but rather a different perspective, increases awareness that neurodivergence is acceptable and even an advantage if neurotypical people open their hearts and minds to this possibility. Art therapists can help build these bridges between neurodivergent and neurotypical worlds through artistically facilitated communication—a middle ground of sorts. Additionally, there has been very little discussion of neurodiversity overall in the field of art therapy beyond the general application of art therapy with individuals with ASD. My project's website serves to advocate for continued discussion of the relevancy of neurodiversity to the art therapy field, and hopefully will generate discourse that will advance future research.

Design and Content

The website is designed to house a mix of original material that I have written or created, such as original artwork, grounded theory from my study, and the project's infographics, as well as information from the discourse that I gathered while developing a broad and comprehensive literature review that informed the study. Educational material and resources on art therapy and neurodiversity found on the site are framed with the

perspective that neurodiversity is an important consideration in applied art therapy practice, as are perseverative popular culture interests in particular.

The website, located at www.arttherapyandneurodiversity.com, features several web pages to facilitate easy and straightforward navigation. These currently include:

- Home
- Why Art Therapy?
- Pop Culture Interests and Application
- Selected Resources
- Clinical Services
- About Jessica
- Journal (password-protected research blog)
- Public Blog

The following provides images of each of these pages and short descriptions of the content included.

Home. The home page includes a disclaimer that states:

> Note on language: Therapists are often taught to use "person first language" (to not put the disability before the person) BUT what is important in clinical practice is how clients themselves identify. Many individuals with autism spectrum disorder identify as Neurodivergent or Autistic—make sure to ask!

I feel that I would be remiss to not include this statement. It has become clear through my research and conversations with many adults on the spectrum that they embrace their neurodivergence and their autism and prefer to be identified as such. They

advocate use of "identity-first language" (acknowledging that autism is a major part of who they are and therefore should not be discounted). Many people argue that not using identity-first language shows disrespect and a discounting of how important being autistic is to their interaction with the world and who they are; that they cannot be separated from their autism (L. X. Z. Brown, 2011). Generally speaking, there are compelling reasons to use person-first language, largely related to the human penchant to turn disability terms into insults; the overall intent is that it "emphasizes the person first, not the disability" (Centers for Disease Control and Prevention, n.d., para. 2). However, as I stated on my website, it is most important to let clients decide and to respect their autonomy in doing so. Further and not unrelated to this disclaimer, the home page provides information on my argument that art therapists are uniquely suited to work with neurodivergent individuals. Art therapy provides flexibility to encourage clients to include their interests, perseverative or not, in their therapy through the creation of art and role-play.

The home page (Figures 11 & 12) sets up the case for these claims by providing information on art therapy and its application with neurodivergent individuals as well as the concept of neurodiversity itself. The section entitled "Advocating for Appreciation of Neurodivergence in Art Therapy Services" also includes three links. The link entitled "Information for Art Therapists" links to the section of the website that details how to work with popular culture perseverations in art therapy sessions and settings. The link entitled "Information for Clients/Prospective Clients and Their Families" links to the "Why Art Therapy" page, which includes the short documentary film I made describing art therapy practice with individuals with ASD and the need for licensure to help increase accessibility of art therapy services. The final link, "Information for Related

Professionals," links to the tool kit *Art Therapy and Autism Spectrum Disorders* from the Autism Society of America and the American Art Therapy Association (2012). This toolkit provides examples of existing art therapy programs and resources for individuals with ASD, information for how to implement similar programs, and information on outcomes of art therapy with individuals with ASD.

The latter half of the home page includes a definition of art therapy, resources for more information on art therapy and art therapy specific to working with individuals with ASD, a definition of neurodivergence, and links to more information on neurodiversity.

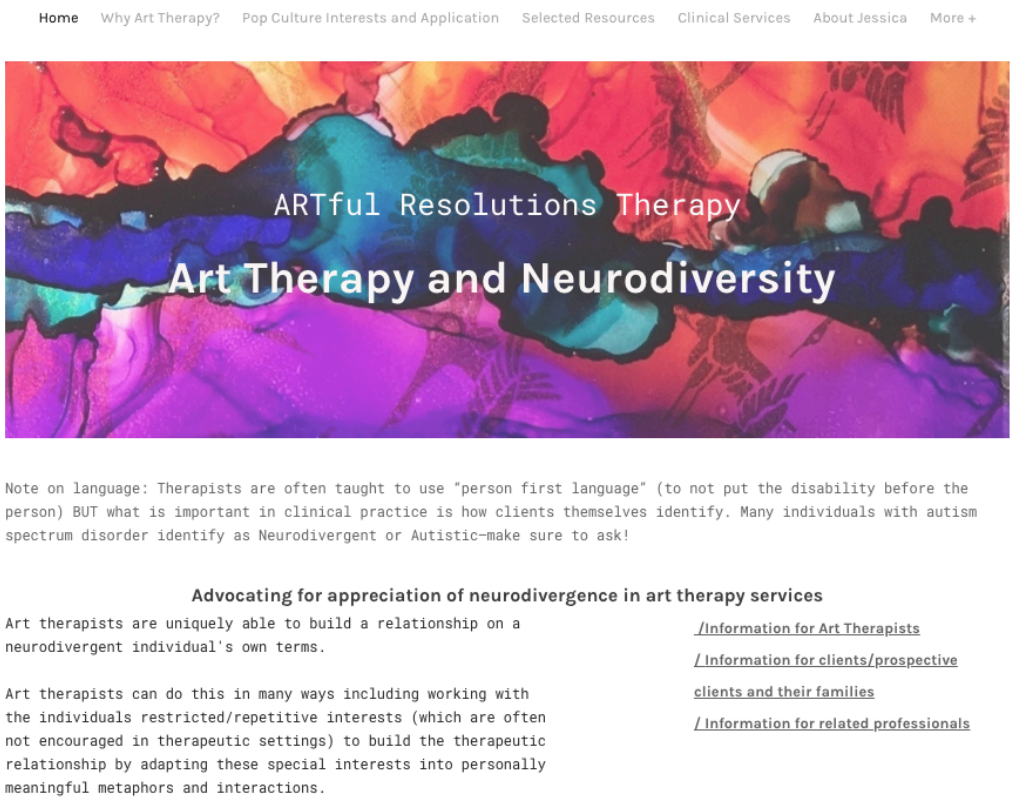


Figure 11. Home Page, Top

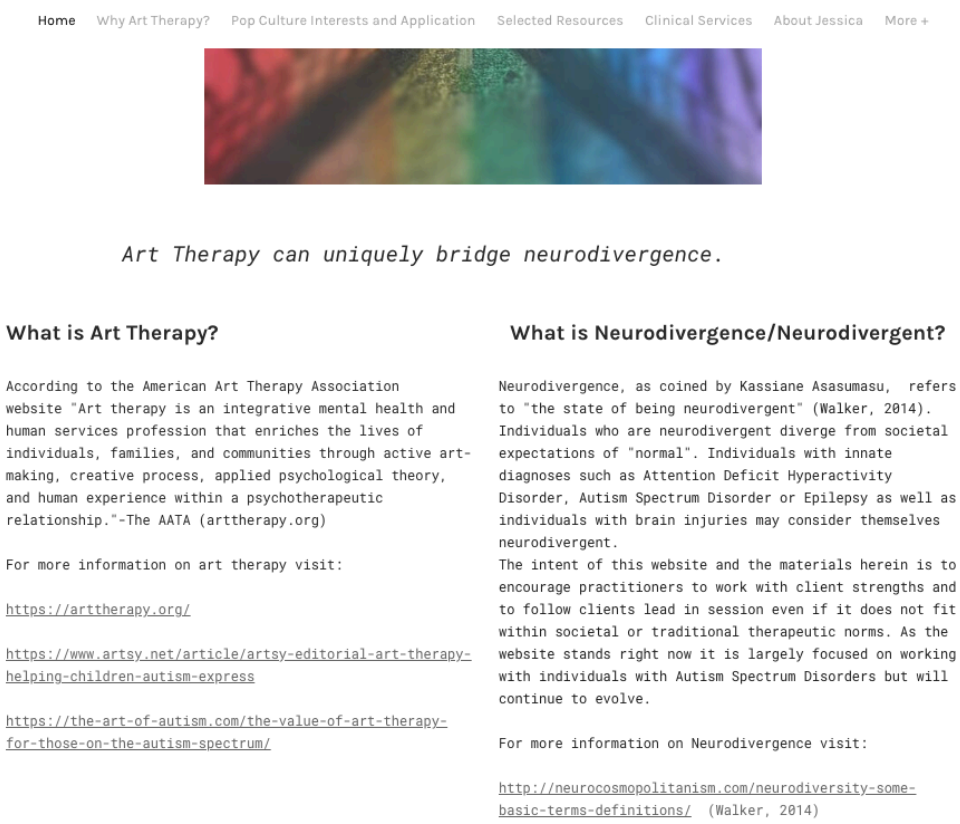


Figure 12. Home Page, Bottom

Why Art Therapy?

As referenced in the above section of this paper, the "Why Art Therapy?" page (Figures 13) features the short documentary film *Art Therapy: The Missing Piece* (Appendix C). I created this 15-minute documentary to illustrate the benefits of art therapy for people on the autism spectrum in order to advocate for expansion of services in the state of Kansas and beyond. I completed the film as a pilot project for my doctoral studies as well as to educate stakeholders regarding treatment of individuals on the autism spectrum utilizing visual and other creative arts. This page also features a video illustrating relationship development through art and popular culture with Tommy, my 11-year-old study participant. This video presents the use of a drawing program for iPad

called Brushes XP and discussion of demons and anime. Finally, I included an infographic (Figure 14) that I created to explain the benefits of art therapy for neurodivergent individuals, especially those with ASD. This infographic is a more general outline of the usefulness of art therapy with neurodivergent individuals and includes resources for further information.

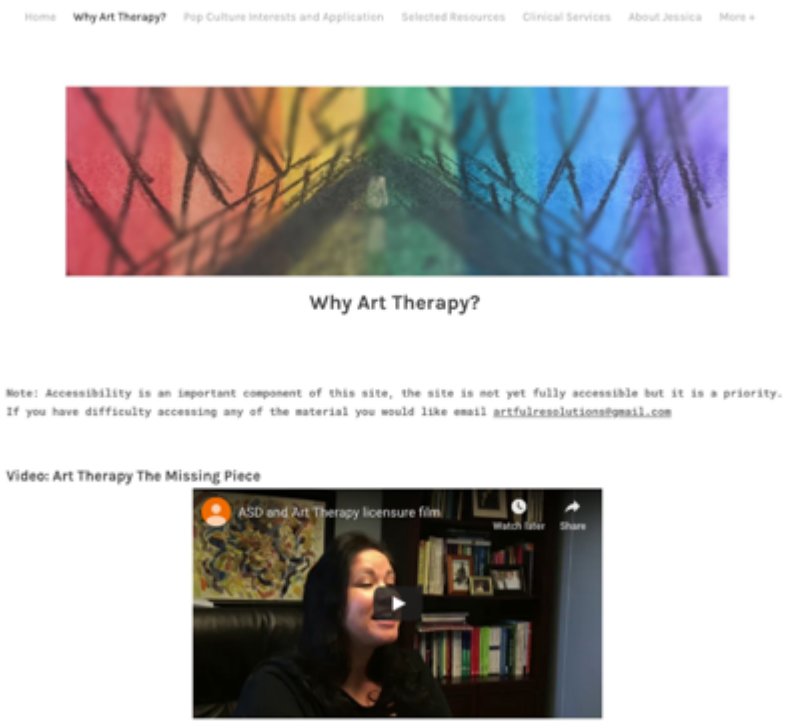


Figure 13. Why Art Therapy?

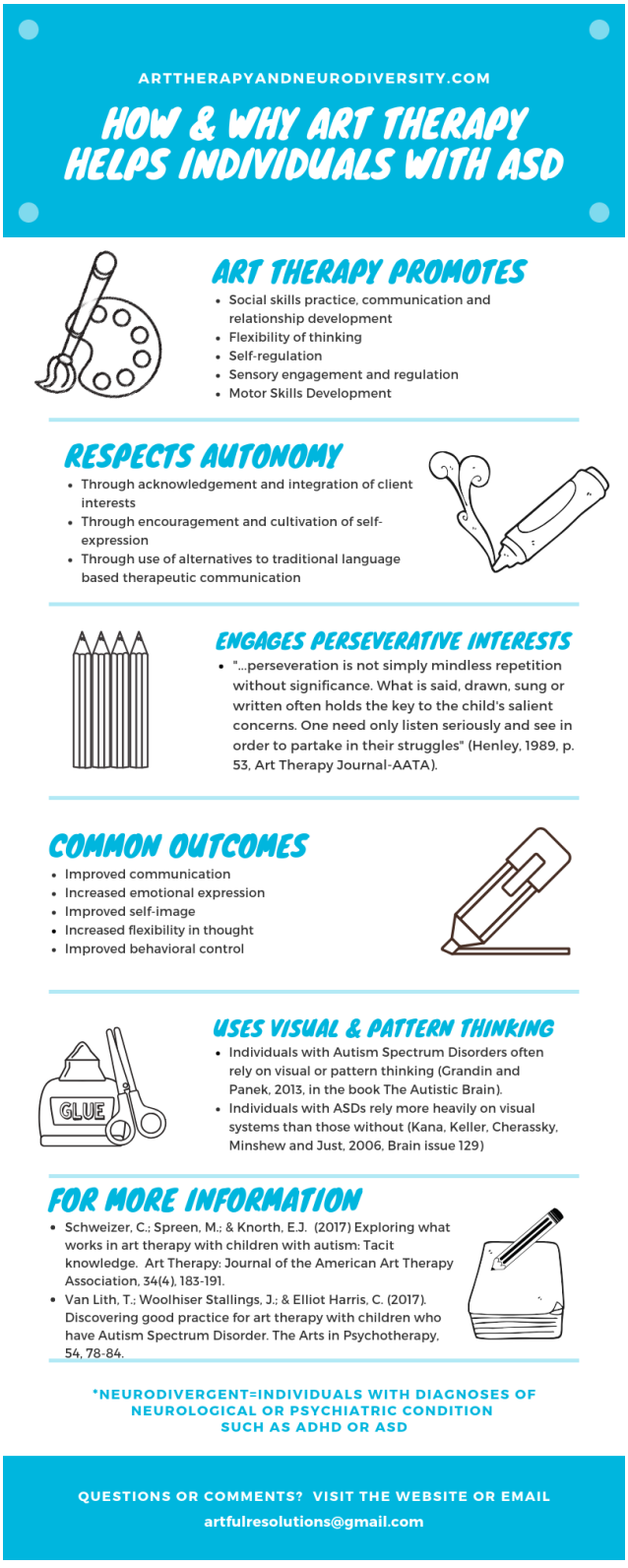


Figure 14. Infographic: How and Why Art Therapy Individuals with ASD

Pop Culture Interests and Application

This page (see Figures 15 & 16) includes multiple infographics, information on my practice theory and facilitative framework, videos that illustrate aspects of the theory and framework, and links to my public blog that provides examples of the theory at work. I utilized similar color schemes for the three infographics on this page to create a visual relationship between the three, and applied distinctive designs to highlight the differences in content from graphic to graphic (see Figures 8, 9, & 10). I also created a companion short film for these infographics demonstrating each of the six referenced popular culture–based neurodivergent interactions I identified in art therapy sessions (Appendix G).

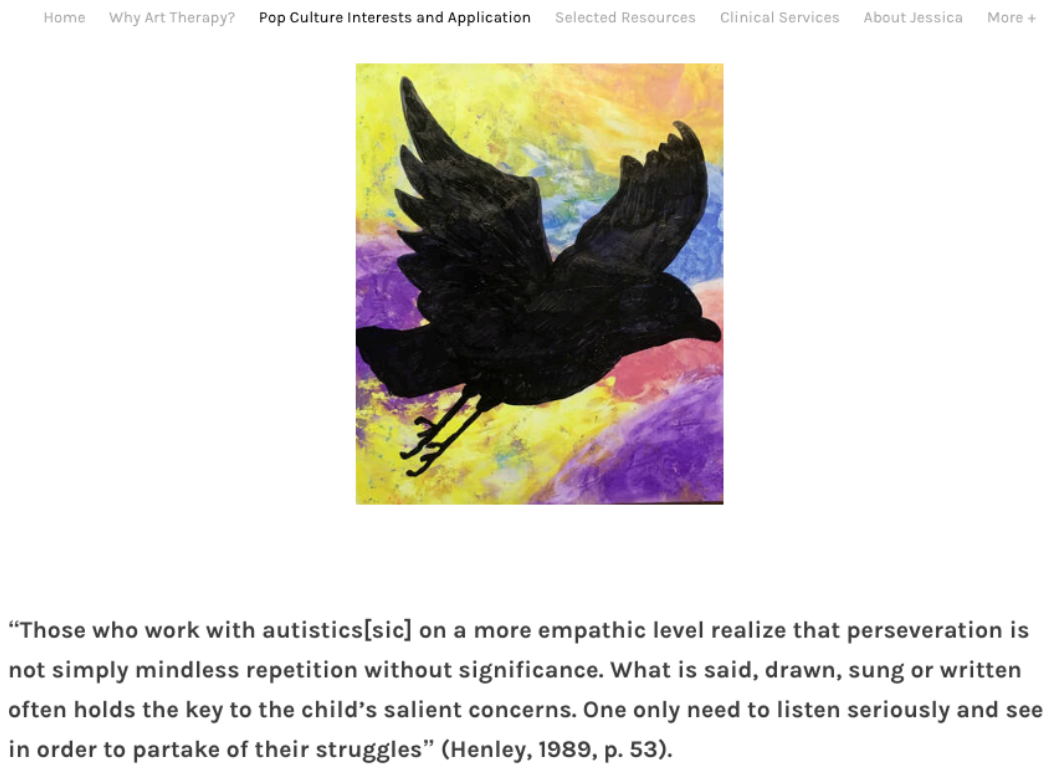


Figure 15. Pop Culture Interests and Application, Top

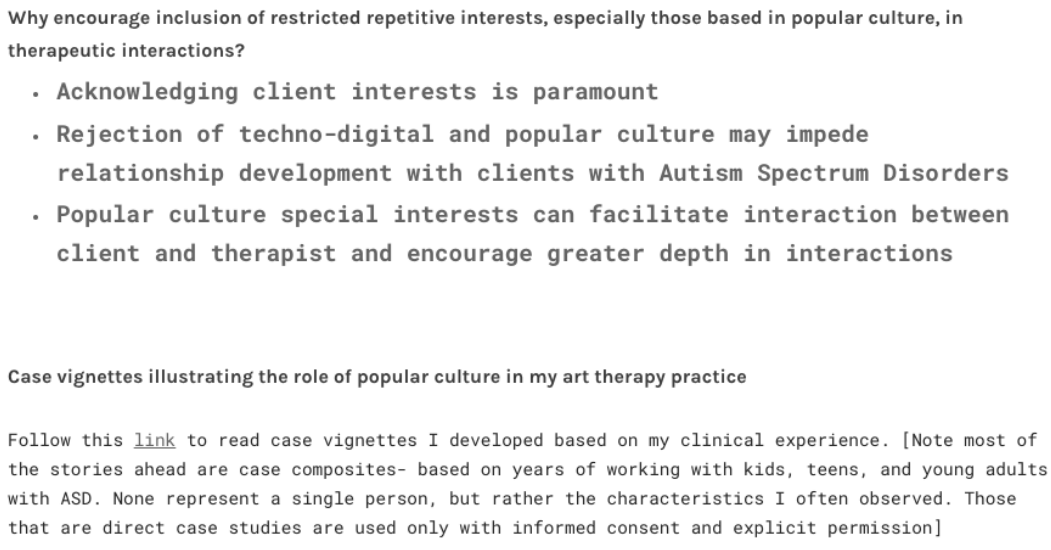


Figure 16. Popular Culture Interests and Application, Middle

Selected Resources

On this page, I narrowed my list of dozens of relevant resources to those I found most straightforward and accessible for a diverse audience of clients, clinicians, and other stakeholders. I divided these into four categories as you can see in Figures 17 and 18.

Selected Resources

Art Therapy and Autism Spectrum Disorders

- Betts, D., Harmer, R., & Schumelevich, G. (2014). The contributions of art therapy in treatment, assessment, and research with people who have Autism Spectrum Disorders. In V.W. Hu (Ed.). *Frontiers in Autism research: New horizons for diagnosis and treatment* (pp. 627-655). Hackensack, New Jersey: World Scientific.
- Bragge, A. & Fenner, P. (2009). The emergence of the 'Interactive Square' as an approach to art therapy with children on the autistic spectrum, *International Journal of Art Therapy*. *14*(1), 17-28, DOI: 10.1080/17454830903006323
- Gazeas, M. (2012). Current Findings on Art Therapy and Individuals with Autism Spectrum Disorder. *Canadian Art Therapy Association Journal*. *25*(1). 15-22
- Henley, D. R. (1989). Nadia revisited: A study into the nature of regression in the autistic savant syndrome. *Art Therapy*. *6*(2). 43-56. DOI: 10.1080/07421656.1989.10758866
- Henley, D.R. (2018). Creative response activities for children on the spectrum: A therapeutic and educational memoir. New York, NY: Routledge.
- Martin, N. (2009). *Art as an early intervention tool for children with Autism*. London, England: Jessica Kingsley Publishers.
- Martin, N. (2011). Art therapy and Autism: Overview and recommendations. *Art Therapy: Journal of the American Art Therapy Association, 26*(4), 187-190. Doi: 10.1080/07421656.2009.10129616.
- Martin, N. & Betts, D. (2010). Art Therapy approaches to treating autism. In K. Siri & T. Lyons (Eds.). *Cutting edge therapies for Autism 2010-2011* (pp. 48-53). New York, NY: Skyhorse.
- Regev, D. & Snir, S. (2013). Art therapy for treating children with autism spectrum disorders (ASD): The unique contribution of art materials. *Academic Journal of Creative Art Therapies*. *3*(2). 251-260.
- Schweizer, C., Knorth, E. J., & Spreen, M. (2014). Art therapy with children with Autism Spectrum Disorders: A

Figure 17. Selected Resources, Top

- Schweizer, C.; Spreen, M.; & Knorth, E.J. (2017) Exploring what works in art therapy with children with autism: Tacit knowledge. *Art Therapy: Journal of the American Art Therapy Association, 34*(4), 183-191. Doi: 10.1080/07421656.2017.1392760
- Van Lith, T.; Woolhiser Stallings, J.; & Elliot Harris, C. (2017). Discovering good practice for art therapy with children who have Autism Spectrum Disorder. *The Arts in Psychotherapy, 54*, 78-84. Doi: 10.1016/j.aip.2017.01.002

Art Therapy and Popular Culture

- Brown, C. & Garner, R.L. (2017). Serious gaming, virtual and immersive environments in art therapy. In R.L. Garner, Ed. Digital art therapy: Materials, methods, and applications. London, England: Jessica Kingsley Publishers.
- Carlton, N. (2014). Digital culture and art therapy. *The Arts in Psychotherapy. 41*. 41-45.
- Klorer, P.G. (2009). The effects of technology overload on children: An art therapists perspective. *Art Therapy. 26*(2). 80-82. DOI: 10.1080/07421656.2009.10129742
- Orr, P.P. (2010). Social remixing: Art therapy in the digital age. In C.H. Moon, Ed. *Materials and media in art therapy*. New York, NY: Routledge.
- Orr, P.P. (2016). Art therapy and digital media. In D. Gussak & M. Rosal, Ed. *The Wiley handbook of art therapy*. West Sussex, UK: Wiley Blackwell.
- Potash, J.S. (2009). Fast food art, talk show therapy: The impact of mass media on adolescent art therapy. *Art Therapy: Journal of the American Art Therapy Association, 26*(2), 52-57. Doi: 10.1080/07421656.2009.10129746

Neurodiversity

- Autism Self Advocacy Network (ASAN, 2019). Disability rights and neurodiversity archive. Retrieved from https://autisticadvocacy.org/category/topic/disability-rights-and-neurodiversity/
- Grandin, T., & Panek, R. (2013). *The autistic brain. Helping different kinds of minds succeed*. Boston, MA: MarinerBooks.
- Liebowitz, C. (2016) What neurodiversity is-what it means for feminism. *Everyday Feminism*. Retrieved from http://everydayfeminism.com/2016/03/neurodiversity-101/
- Muzikar, D. (2018). Neurodiversity: A person, a perspective, a movement?[Blog]. *The art of autism*. Retrieved from https://the-art-of-autism.com/neurodiverse-a-person-a-perspective-a-movement/
- Silberman, S. (2015). *Neurotribes. The legacy of autism and the future of nuerodiversity*. New York, NY: Avery. An imprint of Penguin Random House LLC.

Neurodiversity and Popular Culture

- Newman, J. (October 17, 2014). To Siri with Love. *The New York Times*. Retrieved from www.nytimes.com/2014/10/19/fashion/how-apples-siri-became-one-autistic-boys-bff.html
- Newman J. (2017). *To Siri with love: A mother, her autistic son, and the kindness of machines*.
- Williams, R. R (Producer & Director). (2016). *Life animated: A story of sidekicks, heroes and autism* [Documentary]. United States of America: A&E Indie Films. New York, NY: Harper.

Note: Accessibility is an important component of this site, the site is not yet fully accessible but it is a priority. If you have difficulty accessing any of the material you would like email artfulresolutions@gmail.com

Figure 18. Selected Resources, Bottom

Clinical Services

The "Clinical Services" page (Figure 19) will include information about my private practice work. I delayed beginning private practice work in Omaha, Nebraska, where I moved in late summer 2018, until I had nearly completed my dissertation. Although the whole website will remain dynamic in terms of changing content as needed, at the time of this writing this page is the least developed.

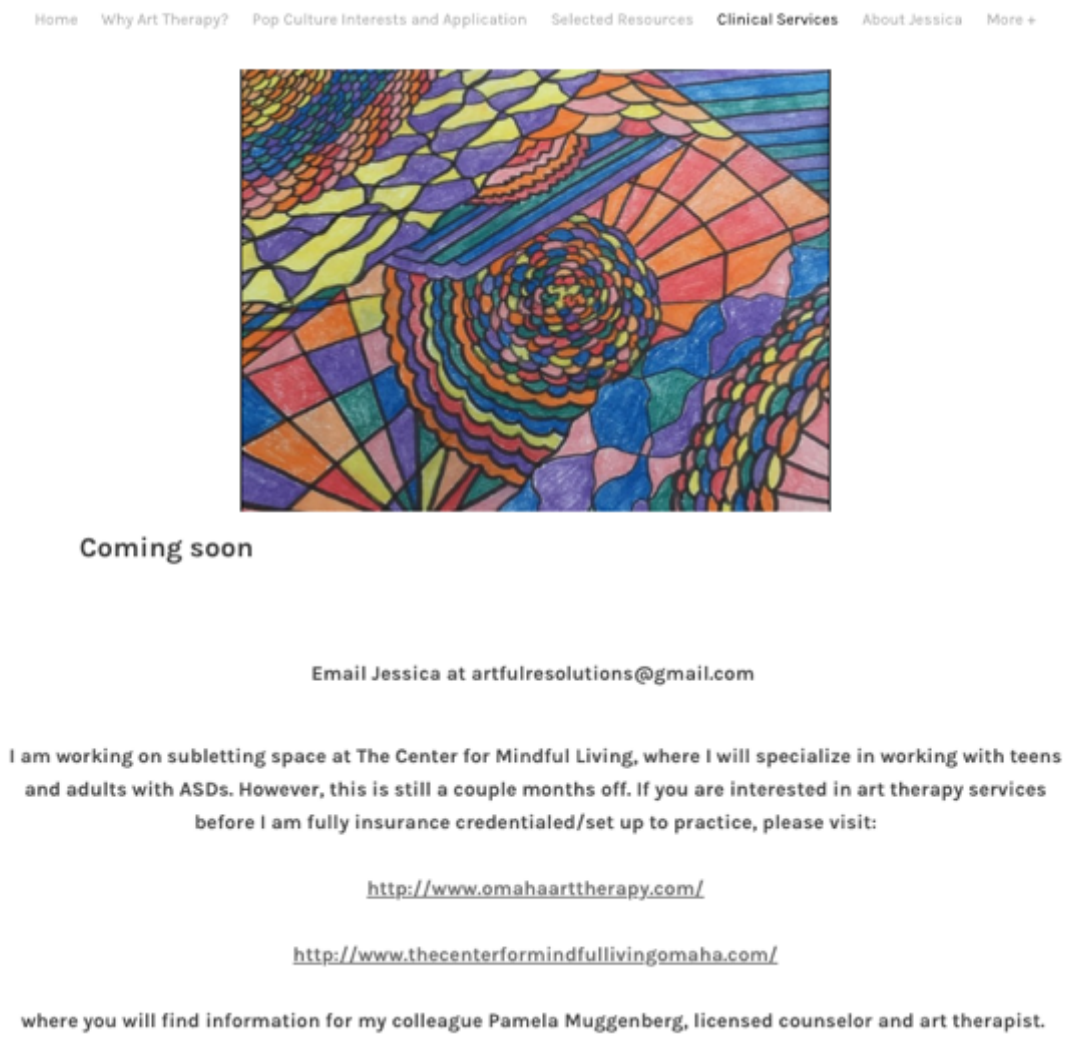


Figure 19. Clinical Services

About Jessica

The “About Jessica” page is my professional biography (Figures 20, 21, & 22). This page provides a glimpse into my professional motivations and goals. It also highlights my most relevant professional positions, presentations, and publications, identifying why I should be taken seriously as an expert on art therapy and ASD.

Figure 20. About Jessica, Top

Jessica's professional experience

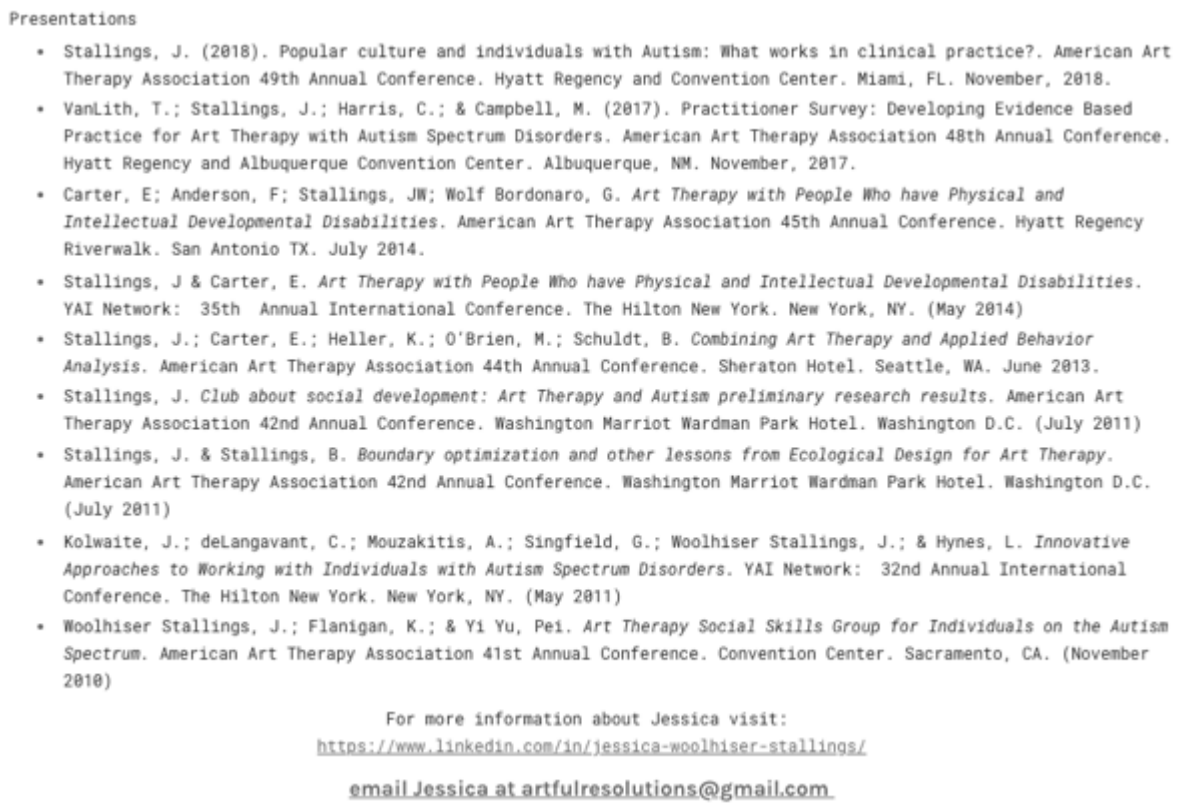
- Program Therapist, Partial Hospitalization, CHI Health Systems, Omaha Nebraska, beginning August 2018
- Private practice Art Therapist, Counselor and Applied Behavioral Analysis Supervisor and Provider, Emporia Kansas, 2011-2018
- Associate Professor of Art Therapy, Emporia State University, Emporia Kansas, 2015-2018
- Assistant Professor of Art Therapy, Emporia State University, Emporia Kansas, 2008-2014
- Lead Clinician and Researcher for Autism Social Skills Project, University of Nebraska Medical Center Munroe Meyer Institute Recreation Therapy Department, Omaha Nebraska, 2005-2008

Jessica's publications and presentations

Publications

- Woolhiser Stallings, J. (2018). Book review- Creative response activities for children on the spectrum: A therapeutic and educational memoir. *Art Therapy: Journal of the American Art Therapy Association*.
- Van Lith, T.; Stallings, J.; & Harris, C. (2017) Discovering good practice for Art Therapy with children who have Autism Spectrum Disorder. *The Arts in Psychotherapy. 54*. p. 78-84.
- Wolf Bordonaro, G.; Cherry, L.; & Woolhiser Stallings, J. (2015). *The role of art therapists in maximizing the mental health and potential of learners with special needs.* In F. E. Obiakor and J.P. Bakken, Eds. Interdisciplinary connections to special education: Key related professionals involved. Bingley, UK: Emerald.
- Crawford, M.; Gray, C.; & Woolhiser (Stallings), J. (2012) Design and delivery of a public school social skills training program for youth with Autism Spectrum Disorder: A five year retrospective of the school/community/home (SCH) model of social skills development. *Annual in Therapeutic Recreation. 20.*

Figure 21. About Jessica, Middle



Presentations

- Stallings, J. (2018). Popular culture and individuals with Autism: What works in clinical practice?. American Art Therapy Association 49th Annual Conference. Hyatt Regency and Convention Center. Miami, FL. November, 2018.
- VanLith, T.; Stallings, J.; Harris, C.; & Campbell, M. (2017). Practitioner Survey: Developing Evidence Based Practice for Art Therapy with Autism Spectrum Disorders. American Art Therapy Association 48th Annual Conference. Hyatt Regency and Albuquerque Convention Center. Albuquerque, NM. November, 2017.
- Carter, E; Anderson, F; Stallings, JW; Wolf Bordonaro, G. *Art Therapy with People Who have Physical and Intellectual Developmental Disabilities*. American Art Therapy Association 45th Annual Conference. Hyatt Regency Riverwalk. San Antonio TX. July 2014.
- Stallings, J & Carter, E. *Art Therapy with People Who have Physical and Intellectual Developmental Disabilities*. YAI Network: 35th Annual International Conference. The Hilton New York. New York, NY. (May 2014)
- Stallings, J.; Carter, E.; Heller, K.; O'Brien, M.; Schuldt, B. *Combining Art Therapy and Applied Behavior Analysis*. American Art Therapy Association 44th Annual Conference. Sheraton Hotel. Seattle, WA. June 2013.
- Stallings, J. *Club about social development: Art Therapy and Autism preliminary research results*. American Art Therapy Association 42nd Annual Conference. Washington Marriot Wardman Park Hotel. Washington D.C. (July 2011)
- Stallings, J. & Stallings, B. *Boundary optimization and other lessons from Ecological Design for Art Therapy*. American Art Therapy Association 42nd Annual Conference. Washington Marriot Wardman Park Hotel. Washington D.C. (July 2011)
- Kolwaite, J.; deLangavant, C.; Mouzakitis, A.; Singfield, G.; Woolhiser Stallings, J.; & Hynes, L. *Innovative Approaches to Working with Individuals with Autism Spectrum Disorders*. YAI Network: 32nd Annual International Conference. The Hilton New York. New York, NY. (May 2011)
- Woolhiser Stallings, J.; Flanigan, K.; & Yi Yu, Pei. *Art Therapy Social Skills Group for Individuals on the Autism Spectrum*. American Art Therapy Association 41st Annual Conference. Convention Center. Sacramento, CA. (November 2010)

For more information about Jessica visit:
https://www.linkedin.com/in/jessica-woolhiser-stallings/

email Jessica at artfulresolutions@gmail.com

Figure 22. About Jessica, Bottom

Journal

I also included a password-protected blog (Figure 23) on my website. In the early stages of website development, I utilized this feature as a "research blog," which allowed me to write and collect some of my research memos to share for feedback from my dissertation committee members and research advisor. The research blog also helped hold me accountable to at least partially sticking to the timeline I set for myself to be able to complete my dissertation. I blogged a minimum of once per month starting in September 2018 and continuing through my dissertation defense. It is likely that I will archive or hide this page from the website menu once I have completed my defense, because it will not be viewable by the public.

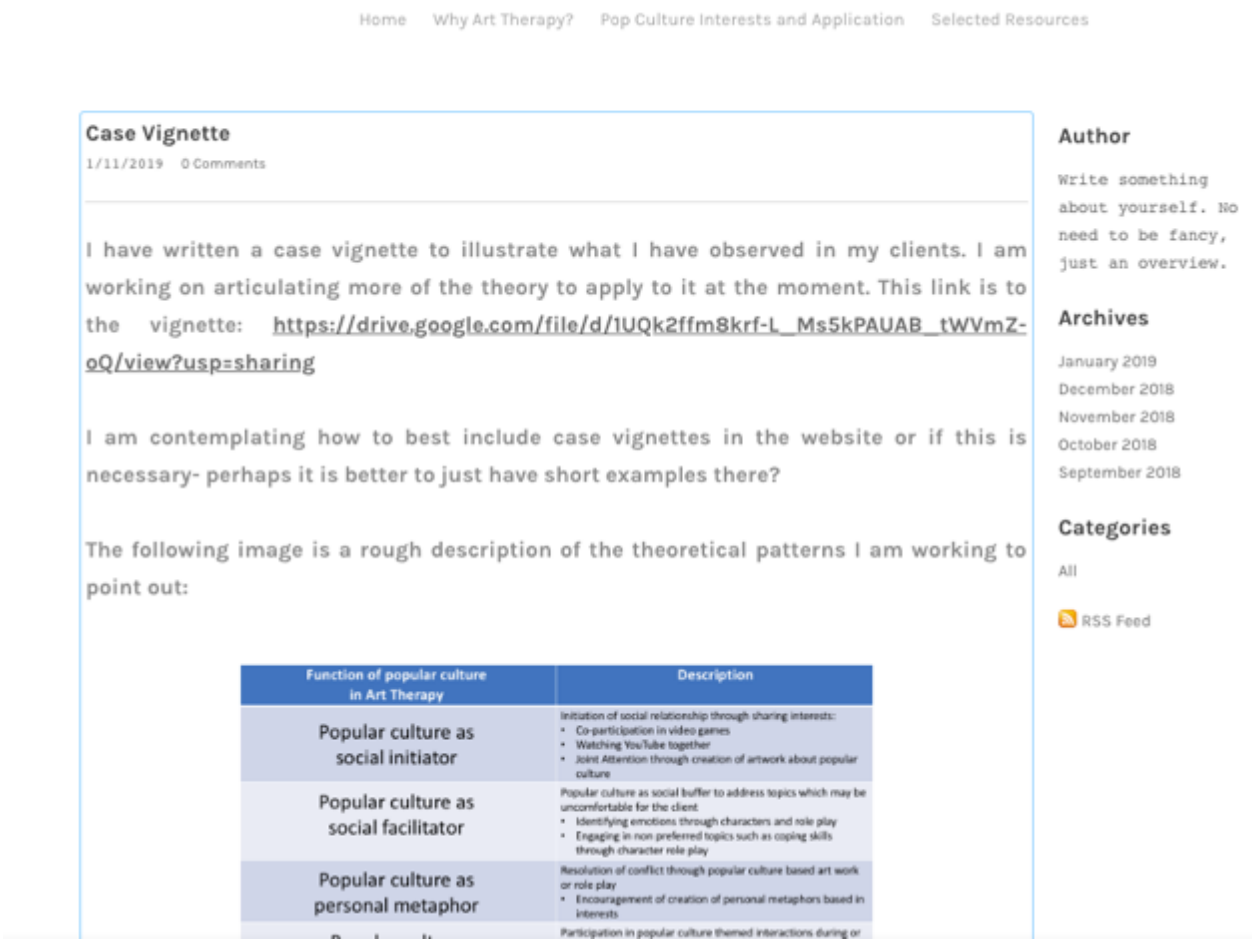


Figure 23. Journal

Public Blog

The last page I added to the website is my publicly accessible blog (Figure 24). This is where I intend to share cases based in my experience with neurodivergent individuals to support the theories and claims I make elsewhere on the site. I may occasionally include case studies of actual clients here, with informed consent from families and clients; however, I will primarily develop fictionalized case vignettes, based on my experience, to protect the privacy of my clients.

Figure 24. Public Blog

Conclusion

This chapter detailed the study results, theory and facilitative framework, and creative portfolio outcomes of my practice-led qualitative research project. These results were grounded in my study, practice experience, and knowledge of the existing literature related to the use of art therapy to treat ASD-associated symptoms, my clients' interests in popular culture, my appreciation for neurodiversity, and the utilization of restricted repetitive behaviors within the therapeutic relationship. Based on the study results I

created a practice theory that I see as the foundation for a larger theory, Neurodiversity Bridge Theory, which I will continue to develop. The practice theory provided the information for a facilitative framework for art therapists to guide use of popular culture in practice and encourage client autonomy in session and treatment development. I laid out the website in a user-friendly and organized manner, attempting to make it appealing and accessible to a wide audience of art therapists, related practitioners, neurodivergent clientele and their families, and any other stakeholders in the treatment of ASD-associated symptoms. The resulting website, video, and written resources will continue to evolve as my practice experience, scholarship, and other related resources continue to evolve.

CHAPTER 5: REFLECTIONS AND IMPLICATIONS OF THE PROJECT

The field of art therapy has identified research into the practice of art therapy with individuals with autism spectrum disorder as a priority (Kaiser & Deaver, 2013). A difficulty that may arise is the lack of theory about why or how art therapy can be effective. The literature to date has described the sensory and social benefits of engaging in art therapy based primarily on case studies, which may demonstrate success in individual practice settings without addressing the larger contexts or systems in which clients live. This bigger picture context must look at treatment effectiveness while respecting the autonomy of the individual. As with criticisms of applied behavior analysis, the most common treatment for individuals with ASD, art therapy also should not be approached as one-size-fits-all. Although art therapists may apply behavioral theory, they often work from more eclectic, multimodal, and integrated perspectives (Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017). Art therapists see the potential for individuals with ASD to engage on introspective levels (Dolphin et al., 2014; Henley, 2018) and to benefit from systems interventions (Schweizer et al., 2014, 2017). This growing acknowledgment of the person with ASD as a whole and complex person is in line with the neurodiversity movement.

Practicing from a neurodiversity lens challenges the art therapist in several important ways. Recognition of neurodiversity demands a strength-based approach, respect for client autonomy, and acknowledgement that neurodivergent ways of thinking can be an asset. The ability to hyper-focus on perseverative interests for hours, days, or years may need to be seen as less an impediment than an adaptive skill that may serve the client in other areas. Watching a favorite television show over and over is not passive or

rote activity; a client may be observing or studying a cast of characters' social interactions, which provides a foundation for interaction outside of watching that show, particularly if others are willing to engage in that interest with the individual and provide social practice. In other cases, engagement in the special interest may provide an ability to self-soothe as a needed precursor to engagement in activities that are new or uncomfortable. In my research I set out to help explain why art therapists might utilize perseverative interests to develop relationships with individuals on the spectrum. I believed that therapists' ability to acknowledge and integrate clients' perseverative interests may be key in developing the therapeutic relationship and building successful art therapy interventions.

Because my project explicitly embraced a neurodivergent lens on practice, I felt most importantly that the grounded theory from my study should be accessible to neurodivergent individuals and their families and available to their critique and feedback. If perseverative and popular culture types of interactions were indeed a bridge between neurotypical and neurodivergent worlds, then the practice theory that emerged from my study could be expected to be relatable to and even validated by neurodivergent individuals. To test this assumption, I recruited a doctoral committee member who has autism spectrum disorder and works in academia. I consulted with her while designing and conducting the research study, and shared with her the elements of the grounded theory as I was developing it. I also shared the theory with fellow academicians or clinicians who were parents of individuals on the spectrum. Finally, I asked those individuals who were featured in the video I created to screen it with me, to ensure that

they felt I had accurately identified the function of their special interests and had captured how someone might engage in a relationship with them through that interest.

In this chapter, I will first discuss my project in the context of the literature. Next, I will discuss the relevance of the study findings to art therapy practice. I will reflect on what I learned about the participatory and anti-oppressive aspects of the research and I will also examine the validity of the results within these qualitative research frameworks. Finally, I will examine the implications for art therapy practice of this research study.

Relevance to the Literature

Therapist Behavior and Interaction Style

The initial purpose of my study was to validate the use of popular culture perseverations in art therapy as a support for building the therapeutic relationship. This emphasis on how to connect with a client with ASD to establish an alliance is frequently mentioned in the art therapy literature, including the need to follow the cues of the client (Durrani, 2014; Isserow, 2008, 2013; Martin, 2008, 2009), the ability to promote attachment and attunement through art-based interactions (Dolphin et al., 2014; Durrani, 2014; Isserow, 2008, 2013), and how the artwork itself encourages the relationship through joint attention (Bragge & Fenner, 2009; Martin, 2009).

I did find evidence of the relationship-building function of popular culture perseverations and named two ways in which it occurs: as social initiation and as social facilitation. In the category of social initiation, popular culture themes in artwork or even in playing video games offer opportunities for the client and therapist to share joint attention on the perseveration. Joint attention provides an initial connection that can lead into the development of a relationship. In social facilitation, one may find that further

exploration and integration of the special interests engage deeper interactions within the relationship, such as illustrating scenarios about the client's favorite video game character to explore non-preferred subjects (e.g., a fight a young client might have just had with a sibling). This finding is consistent with the literature on how such art making encourages joint attention and leads in turn to relationship development. However, I did not specifically assess attunement or attachment, so it remains to be seen whether these goals are promoted when encouraging the use of popular culture perseverations in art therapy interactions.

Goals and Treatment Outcomes of Art Therapy With Individuals With ASD

I did not specifically assess treatment outcomes or goals but focused instead on the patterns of when and how references to popular culture were present in the therapeutic relationship. However, my assertions from the study's grounded theory aligned with a number of frequently identified goals in art therapy with individuals with ASD, including social skills and communication (Gazeas, 2012; Schweizer et al., 2014, 2017; Van Lith, Stallings & Eliot Harris, 2017), self-empowerment (Schweizer et al., 2014, 2017), client-identified therapy goals (Elkis-Abuhoff, 2008, 2009), behavioral and emotional self-regulation (Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017), and increased joint attention (Gazeas, 2012).

In the study multiple instances of popular culture preservations used as incentive for rewarding desired behavior were observed in clinical notes as well as video footage from the walk-through interview. This was evident in instances where clients were asked to play non-preferred games (e.g., to identify emotions) and were rewarded by selecting a preferred game on my iPad, and when the walk-through interview participant gained

access to preferred games on my iPad as a reward for showing me some artwork he had made previous to our meeting. Use of popular culture–related materials as behavioral rewards supports behavioral flexibility and control (Betts et al., 2014; Regev & Snir, 2013; Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017) and the therapeutic goal of behavioral regulation (Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017), as these rewards are aimed at increasing such behavioral progress.

Therapy goals that are commonly cited in the ASD literature were found across my data with my clients, including improving or developing social skills and communication (Betts et al., 2014; Gazeas, 2012; Isserow, 2008; Martin, 2008, 2009; Regev & Snir, 2013; Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017), behavioral and emotional self-regulation (Schweizer et al., 2014, 2017; Van Lith, Stallings, & Eliot Harris, 2017), and self-empowerment and increased joint attention (Gazeas, 2012). I developed goals in these areas in conjunction with my clients and, when applicable, their parents. Following client special interests and integrating them into session encouraged autonomy and self-empowerment (Schweizer et al., 2014, 2017); thus, although at times parents were influential in goal setting, clients themselves also assisted in discovering ways that worked best for them in achieving these goals.

Working in this way communicated to my clients that who they were was important and, as the therapist, my role was not to change them but rather to partner with them in finding ways to address areas where they were having difficulties. For instance, in my clinical notes I found an example of a client who created a goal of working through his anxieties related to weather after looking up weather facts on my computer. In later

notes he set a goal to process grief over his sister's cancer diagnosis after sharing about his favorite video games. Another client set a goal to work through anxiety he had over a YouTube video he had watched: He suggested we watch the video together and then create art together about it and engage in creative play to process his anxiety.

For goals that were not client initiated but focused on observable distress or behavioral issues, I encouraged clients to draw about their favorite characters and engaged them in conversations about their characters to model joint attention. I then gradually increased client joint attention through creating their own artworks or images related to particular interests, and eventually moved on to other subjects, art techniques, and so on, after the joint attention skills had been established. For example, in one of the video clips one can see the transition from a preferred topic of the participant's self-created stop motion videos to talking about the recent death of his great-grandfather.

Utilizing popular culture as a personal metaphor aligns with the outcomes of improved emotional expression (Betts, Harmer & Schumelevich, 2014; Elkis-Abuhoff, 2008; Martin, 2008, 2009; Regev & Snir, 2013; Schweizer, Knorth and Spreen, 2014; Schweizer, Spreen & Knorth, 2017; Van Lith, Stallings & Eliot Harris, 2017), self-image (Betts et al., 2014; Elkis-Abuhoff, 2008, 2009; Regev & Snir, 2013; Schweizer et al., 2014, 2017), flexibility of thought, and increased behavioral control (Betts et al., 2014; Schweizer et al., 2014, 2017; Van Lith et al, 2017), as these personal metaphors allow for exploration of potentially uncomfortable topics, encourage abstract thinking, and facilitate the practice of new skills. This is demonstrated in the video clip utilizing a voice-over of a mother of a child with ASD, in which the accompanying images feature

client artwork with preferred images that addressed therapeutic goals, by which joint interest with the popular culture references allowed transition into non-preferred topics.

One area I identified in the study data that is not found to a great extent in the art therapy literature on ASD treatment was reduction of anxiety. Co-occurring anxiety disorders are well-documented in CBT research with individuals with ASD (see, e.g., Kreslins et al., 2015; Sze & Wood, 2007). Therefore, it was somewhat novel that I found evidence that involving clients' special interests in art therapy sessions facilitated clients' processing of anxiety, both directly as a coping skill and indirectly as a metaphor for the anxiety-provoking situation. Although anxiety reduction is arguably implicated in the literature on emotional and behavioral self-regulation and even social communication goals for therapy, it also may need to be addressed as a specific category of need.

Anxiety mediation also aligns with the outcomes of emotional and behavioral flexibility and regulation cited above. I identified functions of popular culture perseverations based on having observed them helping clients to reach these very treatment outcomes. The video representation of anxiety mediation can be found in the documentary film footage where a child turns a doll into a broken animatronic figure, during which he begins to talk about how upset he is that the intern was on vacation. His aggressive pulling and cutting at the doll is congruent with other behaviors associated with this client's behavior when anxious, as documented in the clinical notes.

Some examples of personal metaphor also can be interpreted to be anxiety mediators. The video representations of popular culture as personal metaphor include a child creating creative play scenarios based on preferred video game and animation characters. These videos were created in session at the request of a client who was

interested in filmmaking as a form of art therapy expression. The accompanying clinical notes indicated that the client was anxious about a new medical diagnosis when the video game role-play occurred and also was anxious about the absence of an intern with whom he had orchestrated train wrecks with *Thomas the Tank Engine* toys. He had indicated in previous sessions his interest in a film about an out-of-control train called Unstoppable.

Media and Materials

The art therapy literature recommends the use of a wide variety of materials with individuals with ASD to promote flexibility in behavior and thinking (Schweizer et al., 2014, 2017). The literature also emphasizes the importance of sensory art experiences in relationship building (Durrani, 2014) and self-regulation (Durrani, 2014; Kearns, 2004). This is an area I barely touched on in my study. For example, I found little evidence in my data of attention to clients' sensory integration needs, which may relate to the particular files I reviewed and the characteristics of the individuals who participated in the project. Although some of the clients in the sample had sensory aversions and difficulties with some sensory experiences, these were not addressed in their primary therapy goals. Instead, we worked more on increasing coping skills to deal with aversive sensations and ways to self-regulate. This choice was indicative of the neurodivergent lens on treatment and related to my value for client autonomy in session. That is, when clients wanted to avoid a sensory experience, I allowed it as a matter of reinforcing their autonomy or self-agency, especially if the sensory aversion did not interfere with the client's overall functioning.

This same value is reflected in the infographics I developed, which do not place attention on traditional sensory art making (such as finger painting, clay, etc.) but rather

focus on integrating client interests into session. If clients were interested in sensory art making (e.g., a desire to create a polymer material known as "slime," which was very popular with my clients due to do-it-yourself YouTube videos), then sensory art making would be included in the session. It is important to note that neurodivergent individuals may consider these electronic art media as sensory immersive media (M. Johnson, personal communication, April 9, 2019).

In general, I found from the data analysis that I placed little focus on the media or materials but focused instead on themes and interactions. Where I did explore media, it had to do with advocacy for the use of nontraditional media that were not by nature sensory, such as iPads, video games, and imaginative play. These nontraditional media feature in the infographics and video and inherently relate to the integration of popular culture within art therapy interactions with neurodivergent clients, particularly individuals with ASDs. Popular culture–themed Lego blocks were a frequent medium in my practice, as were themed stickers and *Thomas the Tank Engine* trains. Such artifacts are rarely defined as art media in the art therapy literature, yet they served in that role in my practice. I made specific recommendations in my infographics to utilize video games and YouTube videos in session when possible and illustrated the use of digital art making apps in my video illustration of how employing popular culture can be useful in art therapy practices with clients with ASDs.

Systems Considerations

I went into this research study with a desire to acknowledge how I saw individuals with ASD as particularly influenced by their macrosystem, defined by Bronfenbrenner (2005a) as the culture or subculture within which a person lives. My clients with ASD,

including those whose records I reviewed in my study, often focused intensely on cartoon characters, video games, or YouTube videos that they accessed from the surrounding popular culture macrosystem. Encouraging these expressions in the mesosystem of our therapeutic relationship often provided opportunities to strengthen this relationship through their willingness to share these interests with me and my willingness to engage in these interests, thereby facilitating progress in therapy.

I identified numerous examples of these influences in my study. For instance, one client's files mentioned the video game Five Nights at Freddy's in more than 30 notes, representing approximately one-third of all of the notes I had documented on sessions with him. Another third centered on trains, as inspired by his interest in *Thomas the Tank Engine*, and still others included repeated mentions of *My Little Pony* and Minecraft. These references occurred in documented verbal interactions and artwork. Initial mentions provided joint attention on the client's artwork and encouraged use of these interests as symbolic of conflicts that were occurring in his life. Later interactions included my intern and me as active participants in creative play in which we partnered with the client to work out conflicts he was experiencing. Other client notes I reviewed included multiple mentions of video games such as Grand Theft Auto with accompanying artwork. Still other clients, two siblings who both had ASD diagnoses, based their interactions on *Star Wars* in approximately half of my clinical notes on sessions with them. I had documented that they often and more quickly invited me to participate in these scenarios, and sometimes asked me to play characters who doubled as a character in their preferred game or movie and as someone in their life.

My clinical notes reflected that my clients invested in popular culture interests more often than in their immediate relationships. They only mentioned family members and friends when prompted to do so and often utilized their preferred characters as proxies or representatives of their relationships. For instance, one child created drawings of a video game based on Five Nights at Freddy's that integrated a new character based on his sibling, with whom he often had conflict. Documentation of two siblings whose preferred interest was *Star Wars* reflected their working out some of their conflicts by creating images of the dark side and the light side fighting. Yet other documented examples feature a client working through suicidal feelings, previous trauma experiences with his birth family, and contemporary desires from his biological family by role-playing scenarios reminiscent of Grand Theft Auto with Lego builds he had created, often asking me to obtain sets that included police officers. One creative play session resulted in his sharing memories of his birth father and concerns that he might turn out to be like him, and another ended in him being able to express what he needed in terms of emotional support from his adoptive mother. I assert that these examples demonstrate that by encouraging use of macrosystem interests as a component of therapy art therapists can help their clients forge connections between their neurodivergent world and the neurotypical world around them. That is, creating artwork and play scenarios based on these interests may facilitate resolution of conflict in their everyday lives, or at the least provide opportunities for discovering how to address these conflicts.

Another aspect of the application of a systems approach here is to acknowledge that art therapists work in a wide variety of systems. It is for this reason that I created the infographic examining how to introduce the popular culture or macrosystem material in

the different settings in which art therapists are likely to work. In order to make my theory and facilitative framework widely applicable it was necessary to consider the needs across these diverse settings.

Importance of Anti-Oppressive and Participatory Research Methods

Perhaps most importantly, this research project incorporated anti-oppressive elements and participatory research into its design and implementation. Anti-oppressive practice in a research context means considering the impacts of societal inequalities; that is, who carries the power and privilege and how is it used. An anti-oppressive lens on research acknowledges and addresses historical, systemic, or structural issues related to the research at hand and attempts to combat institutional oppression (Kapitan, 2018). In the case of my study, this meant acknowledging the history of oppressive theories on autism and the limitations of ABA as the primary prescribed therapy for individuals with ASD; the inherent lack of autonomy and power that individuals with ASD are afforded in many treatment approaches, especially ABA; and the importance of advocating for choice in services for individuals with ASD (ASAN, 2019). Anti-oppressive research also considers the intersectional identities of participants (Kapitan, 2018), one part of which includes clients' rights to identify themselves as they choose. My study and the larger project that it contributed to explicitly recognizes and asserts the right of individuals with ASD to be able to define their own identities. For instance, participants may choose to be called autistic or neurodivergent rather than be referred to as a person with ASD.

In hindsight I realize that I did not identify my project methodology as anti-oppressive when I proposed it or even when I began executing it. I simply had a sense that the ethical thing to do was to involve neurodivergent individuals in the project in

such a way that they might advocate for themselves and for others. I also knew that I needed to evaluate my clinical and research notes from the frame of whether inclusion of clients' perseverative interests provided them with control in the situation, rather than how the practice fit into existing models and practices.

Further reflection on my research goals has brought me to the realization that I did indeed conduct the research from an anti-oppressive and participatory frame. Specifically, I engaged an academic with ASD on my committee, I self-reflexively and explicitly encouraged and facilitated advocacy for self and others in the video interview process, and I continuously sought feedback from neurodivergent individuals and their families to test the assumptions and claims on which the grounded theory was based (through review of my infographics, website, and videos). The primary importance I placed on the overarching principles of the neurodiversity paradigm also inherently fits into an anti-oppressive frame. Proponents of the neurodiversity paradigm advocate for involvement of individuals with ASD in all decisions and research that affect individuals with ASD and other neurodivergent conditions. It is for this reason that I cultivated a participatory approach by involving stakeholders with ASD and their families on multiple levels of my research. I plan to continue to seek feedback and revise my website, theory, and practice recommendations by consulting with individuals with ASD.

The flexibility of the qualitative and grounded theory methodology of this study easily allowed for integration of anti-oppressive and participatory methods. In particular the emergent nature of grounded theory facilitated the inclusion of these methods (Charmaz, 2014; Corbin & Strauss, 2008).

Implications for Art Therapy Practice

The results of this study and their dissemination may encourage art therapists to look at their clients with ASD as equal partners in the therapy process. Encouraging a client's inclusion of special interests in the art therapy setting is one way that art therapists can accomplish this equitable partnership. As Henley (1989, 2018) indicated, when clients share their special interests with a therapist, they are giving the therapist a window into their psyches. It is through these interests that therapists can build relationships and address needs. It may be the impulse of therapists to quiet these obsessions in the therapy setting, but those who do risk losing valuable information and doing a disservice to the client by doing so. This study provides grounded theory and specific examples of how popular culture perseverative interests can assist in development of the therapeutic relationship by providing opportunities for the therapist to enter the client's world, to model and practice joint attention, to assist in developing these interests into coping skills, and to partner with clients in their development of personal metaphors based on these interests. The wide availability of the research and project results through a public-facing website makes these results accessible, as well as further expanding their reach to art therapists and therefore increasing the likelihood for uptake and influence on practice.

Another implication of the study on the field of art therapy is the need for art therapists to educate themselves on use of digital media in practice and to ask their clients to teach them about the popular culture subjects and media that are important in the clients' lives. It has been my experience that learning about and using digital media, as well as encouraging clients to teach me about their interests in popular culture and media,

enriches the therapeutic relationship and opens them to engage more deeply. Evidence from this study suggests that integrating video games, tablets, YouTube videos, and art making based on these media facilitates client investment in therapy and greater success in treatment goals.

Most of all, my hope is that this research will impress upon future art therapy researchers the importance of including people with ASD in the development of treatment models and goals for their own treatment. These clients, their clinicians, and their loved ones are the most important stakeholders in their treatment. Clearly, anti-oppressive practice applies to all clients. As those in the neurodiversity and disability rights movements have asserted, there should be nothing about them without them (ASAN, 2017; Charlton, 1998). My website welcomes feedback through a contact page and public comments. I fully anticipate that my theories and models will continue to change and develop in conjunction with feedback from neurodivergent individuals and the autism community.

Validity and Limitations

Limitations

At the time of this writing, my website, which is designed to disseminate the project, appears in the first page of hits when searching Google for *art therapy and neurodiversity*. However, it is not even in the first 10 pages of search results for *art therapy and autism/ASD*, for *neurodiversity*, or for *art therapy and popular/pop culture*, so obviously I have some work to do to increase the site's profile in this type of search. I can address this dissemination limitation by linking to art therapy, autism, and neurodiversity groups online and on social media.

With respect to limitations of the study results, there are at least four areas that should be noted. First, the data are limited from having only one walk-through interview participant. At first glance, the video footage shows behavioral activities that seem somewhat indistinguishable from those of neurotypical 11-year-olds. However, unlike my more neurotypical clients of a similar age, the participant in the study was not at all interested in learning about me and, instead, appeared happy to have someone listen to him talk about his video games, Lego builds, favorite movies, and cats for 2 hours. He did not ask anything about me and he engaged in only minimally related conversation when I would volunteer details about myself, such as the fact that his art teacher is the same art teacher I had when I was not much older than him. He barely acknowledged these comments and then returned to talking about his Lego builds. Therefore, I concluded that he was representative of individuals on the Autism Spectrum due to his diagnosis and evident symptomology. However, others may not see him as representative, especially given that most viewers will form their impressions based on edited, short clips of the video footage.

A second limitation is the overall diversity of the research sample. My clinical notes represented mostly white male clients and my walk-through interview participant was of similar demographics. Therefore my study lacks diversity in gender identity and racial and ethnic identity. Notably, this reflects the wider trend that those diagnosed with ASD are disproportionately white males due to socioeconomic factors, language barriers and other barriers to accessing diagnosis and care (Zuckerman, et al, 2017). Additionally, six of the eight clients represented in my clinical notes were under the age of 18, as was

my walk-through interview participant. Future studies should include participants from more diverse demographic backgrounds to increase the validity of the practice theory.

A third limitation is that the grounded theory from the study was built from data that are primarily from interactions with individuals with Level 1 ASD diagnoses and who communicated through verbal language. Further investigation of this theory in the context of working with nonverbal individuals and individuals with Level 2 and Level 3 ASD is warranted.

Finally, my clinical biases and assumptions are further limitations in this research. I acknowledge that I am somewhat of a popular culture enthusiast. I do not play video games but I know a lot about superheroes, among other things, and enjoy learning about these interests from my clients. To those who know me, it is no secret that I wholeheartedly believe that integration of popular culture into art therapy with neurodivergent individuals is the right thing to do. I came to this conclusion through years of experience and clinical observation. I often second-guessed myself during this time, asking, “Is playing a video game in session really a good use of our time?” or, “Am I giving in to easily repeatedly permitting drawing of the same cartoon image over and over?” However, observing the results in my clients’ responses to treatment convinced me to let go of these doubts and respond to the communication they invited. In this respect, the study results confirm my clinical experiences. However, it should be noted that the retrospective review of my notes and the hours of systematic examination and coding of the video footage imposed a research framework on data that had been collected in naturalistic therapy settings.

Because I both collected and analyzed qualitative data for grounded theory, the theory is limited to my own firsthand observations. I believe I have presented a solid case for why I feel my biases and assumptions are grounded in fact. I worked to triangulate them with multiple sources; however, the results were still reached through my lens. It is my hope that others will apply these theories to lend them further credence and even to refute the pieces that may not be viable.

Validity

Despite the above limitations I assert that this research reaches the validity standards set forward by Charmaz (2014). Charmaz claimed that grounded theory from a study should convey credibility, originality, resonance, and usefulness (2014, p. 337) to those who will use it to build knowledge discourse. Charmaz identified multiple questions for each of these categories to help evaluate the research findings. I will examine each below.

Credibility. The first question is: Do the findings reflect intimate familiarity with the topic? I would assert that the study findings do reflect enough familiarity to be credible, not only because they were derived from several years of experience but also because they were achieved through systematic reexamination of my clinical notes and documentary footage, as well as undertaking the walk-through interview. Based on an abundance of data that included 187 clinical notes, video footage of a former client from his own filmmaking in session and from his participation in my short documentary, video footage of a young adult who had experienced art therapy services and volunteered to participate in my short documentary, and video footage from the preadolescent walk-through interview participant who had not participated in art therapy services, I am also

confident that the data were sufficient to merit my claims and achieve theoretical sampling. Relatedly, I made systematic comparisons of my data sources across these various forms of data and through iterative processes found in triangulation across these sources.

Credibility also rests in part on whether the grounded theory categories represent a range of observations. I ultimately settled on six categories that represented the functions of popular culture in art therapy with individuals with ASD. I provided strong links between these observations and my arguments, providing definitions for each phenomenon and supporting them with evidence from specific examples and thereby providing the logical link between my observations and my articulated assertions in my practice theory.

Finally, I must ask whether I have provided enough evidence to support my claims, such that others would agree with my analysis. I offered abundant examples; however, I could not provide the specific verbiage from my clinical notes or share the notes specifically, due to their confidential nature. Rather, I provided my summaries of their content, so I acknowledge that this is a potential limitation of my analysis.

Originality. Charmaz (2014) suggested that grounded theory researchers ask themselves whether their research offers new insights. My research offers a structured theory that sheds light on the therapeutic functions of a phenomenon that is mentioned only briefly in the art therapy literature, by Henley (1989, 2018) and Van Lith, Stallings and Eliot Harris (2017). These sources mentioned that engaging perseverative interests could assist in building the therapeutic relationship and treatment progress but did so in

passing; the examples provided were based in popular culture but the sources did not ascribe any particular importance to this aspect.

Relatedly, Charmaz (2014) asked whether the analysis provided a new perspective on the data. My theory articulates specific functions of interactions with popular culture perseverative interests in art therapy with neurodivergent individuals, above and beyond previous discourse on the helpfulness of perseverative interests. Additionally, the anti-oppressive lens, with which the principles of the neurodiversity paradigm are applied to encourage client autonomy and self-determination in the art therapy process, has not been previously addressed in art therapy literature with regard to individuals with ASD.

Finally, originality as a validity construct asks how the new grounded theory refines or challenges previous ideas and concepts. My grounded theory names and articulates previously observed phenomena and introduces a greater depth to these phenomena. Clients' perseverative interests can serve to not only build the therapeutic relationship but also to further therapy goals. My theory provides a facilitative framework for applying these concepts.

Resonance. Charmaz (2014) identified the concept of resonance in determining validity in grounded theory research by asking whether the identified categories "portray the fullness of the studied experience" (p. 337). I offered a comprehensive examination of popular culture–based interactions in art therapy with clients with ASD—interactions that often appear to be superficial to those who are unfamiliar with their deeper communicative power. My illustration of how these interactions help to deepen the therapeutic relationship acknowledges the affective needs of individuals with ASD,

particularly as demonstrated in the examples of popular culture as personal metaphor and anxiety mediator.

Resonance also demands critique of liminal or taken-for-granted meanings associated with the data. It can be taken for granted, in the current study, that showing interest in a client's perseveration can help forge a relationship; however, this claim goes much deeper than that. By acknowledging the richness and depth of interactions based in popular culture perseverations, this study has revealed multiple layers of meaning. One example, mentioned previously, is how one client had explored and addressed his suicidality and other family issues through Lego builds and acting out scenes from the game Grand Theft Auto.

Linking data to larger systems and individual lives is also an important indicator of resonance. I described my practice experience and then considered how this experience and the lessons I learned could be applied across disparate settings, thereby contextualizing how professionals across settings can apply my theory with their individual clients. As importantly, if not more so, resonant validity asks whether the developed theory "makes sense to your participants or people who share their circumstances" and asks, "Does your analysis offer them deeper insights about their lives and worlds?" (Charmaz, 2014, p. 338). I see the answer to this question as a work in progress. I have shared my theory with my participants, participants' parents where applicable, friends who are parents of children on the spectrum, and others with ASD. I received this feedback from the parent of a child with ASD:

> I especially like [infographic] #3 [Employing Pop Culture in Neurodiverse Art Therapy Settings]. It gives the presence of positive attachment to technology—a

> subtle, but important message, particularly for parents that depend on iPad use for communication/rewards/breaks/ability to complete household tasks etc. etc. etc. These parents, myself included, face a lot of push back for using any form of technology. I think the positive spin is excellent.

I have, so far, received only positive responses. However, this could be considered a limitation at this time, as gathering feedback is still a work in progress.

Usefulness. Finally, Charmaz (2014) offered questions with regard to practical application of the developed theory because, to be valid, grounded theory must be useful. The first question inquires as to whether the theory and its analysis can be used in people's everyday worlds. Although this study's grounded theory and facilitative framework is aimed at art therapy practice, there are practical implications for everyday interactions with and for individuals with ASD. For instance, the implication that relationships can be built through popular culture interests serves to encourage neurotypical individuals to engage more with special interests of the neurodivergent individuals in their lives. This same implication can potentially encourage neurodivergent individuals to identify ways in which their special interests help them to interact with the neurotypical worlds that they navigate daily, which can assist in self-advocacy.

Usefulness also is implicated in the question, "Do your analytic categories suggest any generic processes? If so, have you examined these generic processes for tacit implications?" (Charmaz, 2014, p. 338). Although my results are not statistically generalizable to a larger population, they do provide some generic structures for interaction that advocates for artistic expression in general as well as expression through sharing of special interests to build social relationships that bridge between

neurodivergent and neurotypical interaction styles. For instance, the facilitative framework encourages neurotypical people to inquire about and show interest in popular culture interests as an avenue to better communicate with and understand the neurodivergent individuals in their lives, or vice versa. These concepts can be applied in family relationships, school settings, hospitals, and so on, and do not have to include the presence of a therapist.

Charmaz (2014) also directed attention to the presence of implications for future research (discussed in detail below). There is potential for future research that might examine art therapy sessions structured around my theory and facilitative framework as compared to art therapy that does not. Additional research can also be done to see if the functions of popular culture interactions hold true for other art therapists, or if these are specific to my interactions with clients.

Charmaz's (2014) final questions regarding usefulness are "How does your work contribute to knowledge? How does it contribute to making a better world?" (p. 338). I assert that this study contributes a facilitative framework for the integration of popular culture and other special interests into art therapy interactions with individuals with ASD or other neurodivergent diagnoses. This anti-oppressive structure for art therapy practice also encourages client autonomy and self-determination in the therapeutic relationship through identification of personal therapeutic goals and help in structuring how those goals are met. Cultivation of this lens in art therapy is something art therapists can use in their everyday lives. The infographics provide tips that can be helpful to in bridging neurodivergent and neurotypical interactions across other settings such as in schools, in families, at hospitals, or in other settings where these interactions occur. Thus, the open

dissemination of the theory and associated information on the website extends the possibility that it can influence the seeking of art therapy services by neurodivergent individuals and their families.

Recommendations for Further Research

I have been fortunate to be intimately involved with attempts to build the research evidence base for art therapy practice with clients on the autism spectrum. One of the challenges that exists is that there is little in the literature regarding specific theoretical constructs related to working with this population. Using grounded theory to articulate the how and the why of art therapy with individuals with ASD is a first step in structuring efficacy and effectiveness research. This study creates specific art therapy theory regarding art therapy with individuals with ASD and other neurodivergent diagnoses.

Further studies could be undertaken to confirm the validity of or expand the theory developed in this study. This could be done in a variety of ways. For instance, the facilitative framework could be adapted into a checklist that art therapists working with this population could utilize to assess whether they are observing the same patterns. This study could also be replicated by other art therapists who have clinical notes that could be retrospectively examined within the same grounded theory framework, or who could pursue walk-through interviews to see if they observe similar patterns. Other art therapists might also contribute practice examples to strengthen my theory, as the examples in my study all come from my own practice and observations.

This theory and facilitative framework also could serve as a base for future effectiveness research on art therapy with individuals with ASD. I make this observation informed by the literature, my experience with this dissertation project, and also my

previous work with two other art therapists developing a group model for working with individuals with ASD in school settings and conducting a pilot study on it. I learned in all of these processes that there is not one set way in which art therapists are working with individuals with ASD, which makes large multisite research studies difficult to do. The grounded theory and facilitative framework provide a loose structure, allowing art therapists some freedom in its application while also facilitating some uniformity in structure. This structure might therefore lend some homogeneity to the collection of data across settings, leading to easier analysis.

An effectiveness study such as described above could involve art therapists in multiple sites with similar clients, conducting individual therapy guided by this framework. Doing so would encourage inclusion of popular culture perseverative interests in their art therapy sessions with clients with ASD. Such a study could include pretest and posttest measures to assess effectiveness of the art therapy treatment, such as the Autism Impact Measure (Kanne et al., 2014), which evaluates the impact of ASD symptoms on daily life, or the Social Skills Improvement System Rating Scales (Gresham & Elliott, 2008), to measure perceived frequency of social skills and problem behaviors. Alternately, an anxiety measure could be used, as I found a pattern of the use of popular culture perseverations as an anxiety mediator in the current research study.

This study provides an example of grounded theory building in art therapy. I believe it offers a good starting place for creating more theory with regards to how art therapy functions with individuals with ASD. For example, art therapists could replicate the study structure by modifying it to examine how sensory interventions function with

this population, as this is a frequently documented strength of art therapy in existing published case study research.

Conclusion

This study generated a practice theory with six articulated functions of popular culture in art therapy with individuals with ASD, as well as associated infographics, videos, and website, to facilitate uptake and application of the theory to art therapy practice. The free and open distribution of my findings, theory, and facilitative framework via my website will make this information widely available to art therapists worldwide, while educating art therapists about the importance of practicing from a neurodiversity perspective. The website will also serve to educate the public about art therapy and neurodiversity. The website will provide information on art therapy to neurodivergent clients and hopefully encourage them to seek out art therapy. Finally, the website illustrates the successful use of art therapy by a trained art therapist working with neurodivergent clients, which can serve as advocacy for licensure and wider availability of art therapy through the site's availability to lawmakers and insurance companies.

Henley (1989) observed 30 years prior to this dissertation that paying attention to the special interests of clients on the spectrum was the key to truly understanding them. I came to the same conclusion before ever reading the words from Henley, and I suspect that many other art therapists have as well. This doctoral project has afforded me the opportunity to flesh out how engagement of these interests can enhance art therapy practice and deepen the therapeutic relationship through encouraging clients to share and explore their popular culture special interests in session. Encouraging client engagement of these interests acknowledges and respects the clients' neurodivergence by not

expecting clients to fit the neurotypical models of traditional therapy, which equate popular culture with stereotype and surface-level interactions. Rather, building this bridge acknowledges that popular culture imagery and metaphor can be deeply and personally meaningful.

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Appendix A

Case Vignette

[Note: This story is a case composite based on years of working with children, teens, and young adults with autism spectrum disorder. None of the clients mentioned represent a single person but are instead composed from characteristics I often observed.]

Jamie is small—not smaller than one would expect for his age, but he looks little crouched next to his mother, where he hides his face turned away from me. He is 9 years old and recently diagnosed with autism spectrum disorder. He qualifies for a diagnosis that the doctors and clinicians in his life call Level 1, meaning that to many he appears typical most of the time: academically proficient, friendly (most of the time), but quiet. Although capable of doing his schoolwork, he would rather watch YouTube, so in that respect he is not very different from most of his peers in the United States in the 2010s. Where he is noticeably different is when he throws what outsiders see as "tantrums," sort of like those of a 2- or 3-year-old. When Jamie gets mad he throws things, charges people, hits, kicks, and knocks his younger siblings over. It is as though he is unable to control himself, as though he is unable to evaluate his actions or ask for help. He first got on the radar of the local mental health center when he lunged at a peer at Sunday school, giving the child a small bruise on her arm. When people do not know Jamie, many see him as a child who lacks discipline, a child whose parents disengage and are unwilling to punish or set boundaries. This is not what I see and certainly not what Jamie's parents are like. I have worked with others like Jamie.

Just after the September 11, 2001, attacks, when I was 21 years old, I started working as a lay behavioral therapist, following the strict rules of applied behavior

analysis, to teach a young child skills she needed in order to be ready for school when she turned 5. We repeated pattern games and word identification, role-played age-appropriate play, and I imitated animal noises in the way many preschoolers do naturally, repeatedly. She received rewards for completing the tasks I asked of her, for imitating me imitating animals, for matching the right pictures, and so on. She sometimes seemed anxious, concerned about whether the monster in the attic playroom (where we had our ABA sessions) would get her, but this was beside the point: It was not what I was there to address, even though she sometimes did not appear able to concentrate because of this fear or sometimes had "tantrums"—crying and throwing herself on the floor—seemingly related to it. Anyway, I was just an undergraduate studying art and psychology who did not know how to address this anxiety, so I did what I was supposed to, redirecting her to the task at hand and offering goldfish crackers as a reward. Still, I wondered: Would it help to be more warm and fuzzy, to offer comfort for this worry? I noticed that reenacting scenes from *Dora the Explorer* calmed her, so I encouraged this during our breaks. We concluded our ABA sessions after 16 months, and I do not know how things turned out for her.

I noticed similar underlying anxiety over the years when working with individuals of all ages diagnosed with ASD. The anxiety might be about an intruder drill coming up at school (the anticipation of the alarm almost too much to bear), not being able to make friends in the same way as peers, a break in routine like an unanticipated snow day, a subject that was just too hard at school, not being able to hold a job because of not being able to quite figure out what a boss wants, or really anything that many neurotypicals often also experience as anxiety provoking. The difference came in how my clients would

react. Whereas many neurotypicals might talk to someone about how they felt, assess how they might change the situation, seek comfort in a hug from a person close to them, or go to their doctor and ask if medication might help, my clients would often experience meltdowns, becoming inconsolable with heaving sobs and/or screams or violent tantrums, hitting and kicking and throwing themselves or objects on the floor (although rarely hurting or attempting to hurt others). Another difference I noticed was how most teachers and clinicians addressed this anxiety. They saw it as behavioral defiance and often ignored the person's affective health.

So, what does this all have to do with Jamie? I quickly observe this apparent anxiety in Jamie. His anxiety has many roots: the adoption of his youngest sibling, the illness that sometimes puts his father in the hospital, his peers refusing to always do what he wants to do at recess, having to share his beloved iPad with his older sister, his concern that a tornado might take us away, my computer failing to load a program, and so on. How do I know this is anxiety and not just signs of what others might see as a spoiled and defiant child? Jamie's anxiety is betrayed by his inability to be distracted by anything else, his insistence in the moment that the world is ending (though not expressed in so many words), his refusal to talk about what is happening, and his inability to self-soothe (which some read as refusal to do so)—this is different. Sure, these patterns appear in other kids, but in my experience neurotypical kids self-soothe or seek soothing from others 9 times out of 10, especially once they attain school age. Kids and adults with ASD or other neurodivergent ways of interacting with the world struggle to do so, which is then often made worse by being punished for what is perceived as defiant behavior but may in reality be an anxiety attack or generalized anxiety.

Level 1 ASD means Jamie needs some social support because of minimal difficulty in social communication, such as not following conversational rules, like interrupting people one too many times; having marginal difficulty with reading and displaying body language and other social cues; having behavioral excesses such as experiencing some distress (as compared to typical peers) when needing to transition between activities or when a schedule change occurs (this may be verbal protest or outright refusal to accept the change); and experiencing difficulty getting organized, such as remembering to take home homework assignments, which can lead to not completing tasks (APA, 2013). This organizational difficulty can lead individuals with Level 1 ASD to be diagnosed with ADHD mistakenly, which I have witnessed on several occasions. The conversational issues may include specific focus on preferred topics, with difficulty changing topics when others in the conversation do so, clearly more socially comfortable when the topic is one within their particular expertise. These difficulties may often go unnoticed by social acquaintances.

Individuals with Level 2 ASD are less likely to socially initiate, may only interact based on special interests, and may have more pronounced difficulty with reading body language and other social cues. They experience greater difficulty with transitions and are often content to focus for hours on a preferred interest, becoming visibly upset when transitioning is necessary. Individuals with Level 2 ASD generally possess verbal communication, with traditional speech or the use of American Sign Language or assistive communication devices, such as iPads with communication apps. Individuals with Level 3 ASD often have limited or no verbal communication, may be oblivious to social communication attempts by others, and may experience extreme difficulty coping

with change. The deficits and behaviors of individuals with Level 2 and Level 3 ASD are more apparent to even casual acquaintances than those typical of individuals with Level 1 ASD (APA, 2013).

Some of Jamie's responses to change are stronger, more like those of someone with Level 2 ASD, but his communication skills fall firmly within that of Level 1. Jamie is generally friendly, once he knows you. However, when I first met him he clung to his mom, more like a toddler than a typical 9-year-old, and he often mumbled "I don't like you" or even "Fuck you" under his breath when I would try to talk to him. It took a couple of months for him to warm up to me and allow me to see him without his mother present. We bonded over YouTube. He shared fan-made videos with me based on popular cartoons and video games. He had a particular penchant for Internet-based games like Minecraft, and for catchy little videos like Nyan Cat, which some people have compiled versions of that repeat for more than 10 hours. Jamie would be content to watch recordings of "YouTubers" playing Minecraft for hours, if I would let him. He feels much the same way about watching Nyan Cat. I was hesitant at first to include these things in our sessions, especially because having to transition away from these preferred activities was often what caused bigger behavioral incidents, such as Jamie leaving the room and walking around the building, refusing to return, or knocking over my lamps and throwing my pillows, or on rare occasions attempting to hit me. Was I really doing art therapy if we were just watching people play video games online? Was I causing more harm than good by allowing these things that led to such behavioral outbursts in session?

Jamie responded to offers of paper and marker. He liked to draw his preferred videos too. This made me feel a little better about use of the actual videos in session; we

could bargain—draw first, video later—or make a drawing of the video he liked, which I could usually parlay into continued focus on making art, focused on his interests, rather than playing games. Jamie, like nearly every person I have ever met with ASD, also liked *Thomas the Tank Engine*. We drew trains together. He initially refused to address any of the concerns his parents would mention, like his anger outbursts, his aggression toward his adopted sister, or his difficulty socializing with peers. However, as he became more comfortable with me, I could ask him to draw pictures of the video game characters or YouTubers he liked experiencing scenarios like those that were happening in his life or with the help of my intern role-play these things with Thomas toys. He confided in me that his occasional under-the-breath cursing was from reading YouTube comments and watching YouTubers that his parents had forbidden while unsupervised.

We could frequently address what the characters' worries were, how they felt, and what led them to throw things. Sometimes we role-played, wrote, and drew stories seemingly unrelated to what was happening with Jamie. A big tornado would hit Sodor, the fictional island where Thomas lived, and we would have to rescue the trains and other characters. Usually when these disasters occurred there was something happening in Jamie's life that made him anxious: a transition to a new school, the death of a family member, bullying, a new diagnosis of diabetes for Jamie. This role-play in many ways was not any different than role-playing and art making that I witnessed with neurotypical clients. What was different was that Jamie, unlike other kids of the same age, did not make up his own characters, and did not name characters after himself (only occasionally after his sister), even though I could always tell which character was him. He also did not allow me to create or introduce new characters like the neurotypical children his age I

have worked with; we had to stick to his script and play these scenarios out for months at a time. After about a year of focusing on the same video game, he suddenly introduced his own characters modeled after the game, named after his youngest sister, and he allowed my intern (who did magnificent voices) to introduce additional characters. I worked with Jamie for several years. His play and art-making content and actions were more like what I saw with typically developing preschool children or individuals with significant developmental delays. However, Jamie lacked the intellectual challenges one might expect to come along with this type of play in someone of his age. He nearly always focused on his popular culture perseveration of the moment, sometimes lasting for weeks, sometimes for months or years.

It is hard to articulate treatment plans in ways that managed care agencies like when your notes reflect repeated drawings of tornadoes sweeping away video game characters and YouTubers and there is little in measurable behavior change for extended periods. It is concerning when goals do not change across several 90-day treatment updates, and my fear of Medicaid auditing my records loomed, yet continuing to work in these ways felt right, felt like something to which Jamie responded, however slowly.

Jamie and I continued our art and role-plays based on his favorite characters. He became more open to me interjecting questions like, “What is Thomas afraid of?” or, “Are the other people in the Minecraft universe afraid of the creepers?” Occasionally he would answer questions like, “What are you afraid of?” and “What makes you feel better?” but mostly he only answered them about his preferred characters. Then suddenly Jamie would show a big leap toward or surpass his goals. For instance, Jamie had social anxiety that got worse when he entered middle school—not wanting to go anywhere

without his parents, not wanting to speak to others—which seems a reasonable anxiety for someone with the social communication problems of ASD. His characters in play started focusing on tornadoes and he liked listening to tornado sirens for a reward in session. Then his mom reported that he'd entered a speech contest, electing to do an educational speech on tornadoes and early warning systems, as his interests shifted from video games and trains to the weather and the weather channel. Jamie excitedly shared about his participation in speech. He made friends on the speech team, shared that he felt less anxious about interacting with his peers, and began talking about having friends, although he still prefers to stick to his popular culture perseverations in his artwork. These appeared to be genuine supportive friendships and not the ones he had previously dominated with insistence that peers do only what he wanted to. Sure, some of this progress was due to aging, but some of it was a leap ahead in his coping skills and self-soothing with his social anxiety. Countless hours of popular culture–based art and role-play provided space for addressing Jamie's affective needs and, although rarely directly, addressing underlying causes of his anxiety, rather than just shaping "bad" or "unwanted" behavior and rewarding the right response with goldfish crackers.

Appendix B

Informed Consent Form for Case Note Examples

INFORMED CONSENT TO PARTICIPATE

Dear _____,

You are invited to be in my research study. I am studying how people use movies, video games, or special characters to help them talk or share what they are thinking. This letter will help you decide whether you want to be a part of my study or not. Even if you think it sounds ok, you can change your mind at any time. You don't have do anything you don't want to. Deciding not to be in my study won't keep you from having art therapy because no one will mind.

To do my study, I will read over my notes and look at the art you created in art therapy. I will look for words and patterns that will help me understand how you think. I will also write a story to help others understand why movies, video games, and special characters are important to you. Some of your pictures might be used for my story. But I will not put your real name in my story 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 class.

My study may help other children or young adults be allowed to have art therapy. The stories will help other therapists understand that people on the Autism spectrum are a lot like everyone else but just have special ways of thinking or talking. 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.

If you have any questions, you can call me, Jessica Stallings, at [redacted] or email me at [redacted] or my advisor Lynn Kapitan at [redacted]. You can also talk to someone at Mount Mary University about my study, IRB Chair, Dr. Tammy Scheidegger, at [redacted].

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

_____ _____

Parent or Guardian (if participant is a minor) Date

Appendix C

Documentary Film

Art Therapy: The Missing Piece

https://www.arttherapyandneurodiversity.com/why-art-therapy.html

Appendix D

Documentary Film Informed Consent Form

INFORMED CONSENT DOCUMENT

The School of Art and Design at Mount Mary University supports the practice of protection for participants in research and related activities. The following information is provided so that you can decide whether you wish to participate in the Art Therapy and Autism Film Project. You should be aware that even if you agree to participate, you are free to withdraw at any time, and that if you do withdraw from the study, you will not be subjected to any penalty or other form of reproach. Likewise, if you choose not to participate, you will not be subjected to penalty or other form of reproach.

You and/or your child are invited to participate in the Art Therapy and Autism film project. I am creating a short documentary (15 minutes or less) to document the benefits of Art Therapy for people on the Autism Spectrum in order to advocate for expansion of services in the state of Kansas and beyond. This film will also be utilized to educate current and future practitioners regarding treatment of individuals on the Autism spectrum utilizing visual and other creative arts. I will interview you/your child as well as film brief segments of art therapy sessions.

Due to the nature of the film, confidentiality cannot be assured. It is possible that you and/or your child will be visibly identifiable in the film; this identification could lead to discomfort. However there are not specific risks associated with this identification beyond viewers being able to identify you and/or your child as someone touched by the Autism diagnosis. Impacts of directly and indirectly identifiable information will be minimized, such as avoiding close-ups of your face in filming art therapy sessions, de-identifying locations and agencies, and not asking for any unnecessary demographic information.

Benefits anticipated from this film include possible expansion of services and funding for art therapy with individuals with ASD, improved training of clinicians, and education of key legislative personnel. Participation in the film offers you a role in advocacy for individuals with ASD, as well as for expansion of art therapy services. The film will also be utilized for educating professionals on the proper use of art with individuals on the spectrum and may be used for advocacy for involved agencies provision of services.

As stated previously, confidentiality will not be maintained. However, you (and your child) will be able to view and give final approval of all materials/information included in the film, and any material/information you wish to be excluded will not be included.

This research involves only minimal risk, as the film will be shown in legislative, educational, and other advocacy settings.

If you have any questions, concerns or comments you may contact myself, Jessica Stallings, at [redacted] or my advisor Lynn Kapitan at [redacted].

Signing this form means you give consent for yourself/your child and yours/their artwork to be included in the film project.

"I have read the above statement and have been fully advised of the procedures to be used in this project. I have been given sufficient opportunity to ask any questions I had concerning the procedures and possible risks involved. I understand the potential risks involved and I assume them voluntarily. I likewise understand that I can withdraw from the study at any time without being subjected to reproach."

_____ _____

Participant Date

_____ _____

Parent or Guardian (if subject is a minor) Date

Appendix E

Informed Consent Form for Walk-Through Interview Video

INFORMED CONSENT TO PARTICIPATE IN A VIDEO

Dear _____,

You are invited to be in my research study. I am studying how people use movies, video games, or special characters to help them talk or share what they are thinking. This letter will help you decide whether you want to be a part of my study or not. Even if you think it sounds ok, you can change your mind at any time. You don't have do anything you don't want to. Deciding not to be in my study won't keep you from having art therapy because no one will mind.

To do my study, I need to show what it is like to be a person on the autism spectrum. I plan to video tape what a regular day is like. I would like you to let me spend two to three hours with you, videotaping what you like to do, who you like to be with, and how you spend your time.

After I make the video, I will look at everything you did and put together a short film that helps people understand what your day is like. Short clips from this video will be posted on a website that will teach others about art therapy with people on the autism spectrum and how it helps them. Teachers, therapists, and other helpers will learn more about your special needs.

Because you will be in my video, other people might know who you are just from watching it. This might make you feel uncomfortable. However, I will not show your face or where you live or go to therapy, or telling anyone your name. There should be no other problem with people seeing you on the video; most people will want to see the film so they can understand more about you and other people on the spectrum.

My study may help other children or young adults be allowed to have art therapy. The video will help other therapists understand that people on the Autism spectrum are a lot like everyone else but just have special ways of thinking or talking. If you decide to be in my film, you will be able help me tell your story and teach many people about you. Other therapists, teachers, and helpers will have a better idea of why people on the spectrum need more and better services.

If you have any questions, you can call me, Jessica Stallings, at [redacted] or email me at [redacted] or my advisor Lynn Kapitan [redacted]. You can also talk to someone at Mount Mary University about my study, IRB Chair, Dr. Tammy Scheidegger, at [redacted].

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 at any time."

_____ _____

Participant Date

_____ _____

Parent or Guardian (if participant is a minor) Date

Appendix F

Excerpts From Walk-Through Interview Video

https://drive.google.com/drive/folders/1_UDbjucinBfHIVwKcQDT-tujYIFh2PC2?usp=sharing

Appendix G

Grounded Theory Video Illustration

https://www.arttherapyandneurodiversity.com/pop-culture-interests-and-application.html