Art Therapy and Autism:

Listening to Voices and Critiquing Art Therapy Through Materials and Processes

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Abstract

Autistic people are not being asked about their experiences, perceptions, thoughts, or opinions. There is a discrepancy between what researchers of art therapy are accounting for, and what autistic individuals express through experience. While art has meaningful benefits for all learners, especially autistic people, individuals receiving art therapy oftentimes do not authentically benefit from art therapy in the ways that researchers describe. Using collections of writings and art by autistic individuals, their personal accounts and experiences are placed in conversation with current research on art therapy with autistic individuals. Emphasizing material usage serves the purpose of grounding art therapy in the artmaking process. Because of the current dominance of the medical model and pathology paradigm, art therapists are attempting to *treat symptoms* of ASD, commonly through the use of Applied Behavior Analysis therapy, which has caused trauma to countless individuals on the autism spectrum. Shifting towards the neurodiversity paradigm would recognize and respect diverse minds and ways of being as valuable. Proposed is a call for a paradigm shift from the pathology paradigm towards the neurodiversity paradigm. Further research on the subject of art therapy and autistic individuals must prioritize the voices, opinions, and experiences of people with ASD.

Key words: autism, art therapy, pathology paradigm, medical model, Applied Behavior Analysis, neurodiversity paradigm, critical disability studies

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Introduction

This thesis began with research surrounding art therapy and autism spectrum disorder (ASD). I was researching how autistic children could benefit from art therapy. I was also really interested in material usage, specifically as I was learning about sensory perceptions of autistic children. I thought that art materials being very sensory in nature could be strategically used with autistic children and their senses, for *their* satisfaction. Material usage with autistic children was central to my early research. I am an Art Education major, and materials are essential to artmaking. I think that the most basic definition of art is any form of visual creation, with or without conceptual intention. Art as a visual expression implies that there is thought or feeling motivating creative actions. I think that being an art educator is facilitating and fostering any form of creativity by building relationships with your students and creating meaning within your classroom. To me, therapy is authentically helping someone on a personal level. I spent an entire semester researching what researchers thought were the *benefits* of art therapy with autistic children, with a focus on material usage. I thought that this would result in a collection of the proven *benefits* of art therapy for autistic children, while highlighting how specific materials worked towards these identified *benefits*.

All of the research I was reading was relying on a certain expertise that objectively spoke about people through passive observation (Anghel et al., 2016; Alter-Muri, 2017; Buchanan & Kato, 2016; Coplan, 2012; D'Amico & Lalonde, 2017; Durrani, 2019; Durrani, 2014; Elbrecht, 2012; Furniss, 2009; Garner, 2017; Kumazaki et al., 2019; Lucker & Doman, 2015; Malhotra, 2019; Martin, 2009; Schweizer, Knorth, &

Spreen, 2014; Schweizer, Knorth, & Spreen, 2017; Stewart et al., 2016; Ten Eycke & Müller, 2015; Van Lith, Stallings, & Harris, 2017). I was reading scholarly articles, journals, and books that were written by art therapists or researchers that usually incorporated clinical studies. This resulted in first drafts of my thesis pursuing the authority vector of passive, scientifically-trained observation to determine what the *benefits* of art therapy were for autistic children. This form of clinical and scientific research prioritizes modifying behavior for *social benefit*, disregarding how the individual undergoing the therapy feels. For example, one *benefit* of art therapy for autistic children, as expressed by researchers, is reducing behavioral expressions and outbursts (Alter-Muri, 2017; Coplan, 2012, Durrani, 2019; Durrani, 2014; Elbrecht, 2012; Martin, 2009; Schweizer, Knorth, & Spreen, 2014; Schweizer, Knorth, & Spreen, 2017; Stewart et al., 2016; Van Lith, Stallings, & Harris, 2017). This social benefit is for the *benefit* of parents or teachers having less disruptions and distractions due to behavioral expressions of autistic people. However, reducing behavioral expressions, known as "stimming" within the autistic community, would cause more discomfort and anxiety than would their behaviors being accepted, allowed, embraced, and understood.

My realization that the goals of art therapy were not being centered around the individuals undergoing the therapy was the beginning of an awakening regarding the research about, and practice of, art therapy with children with ASD. As my research developed I realized that the research I was reading was not including the voices of autistic individuals. The individuals receiving art therapy did not authentically benefit from what researchers stated the benefits of art therapy were, and these individuals

were not being included in planning the research agenda. They were being observed by a medically or scientifically trained individual who was making assumptions about how art therapy *benefits* them.

Discovering this was a coming to consciousness that brought with it new ways of thinking through the authentic *benefits* of art therapy for autistic individuals. I think that the most important priority for determining if therapy is benefitting the individual undergoing it is to ask them directly. This may seem obvious, however there is a reason why the only research that I could find on art therapy and children with ASD relied on researchers' observations and opinions. **Autistic people are not being asked about their experiences, perceptions, thoughts, or opinions.** This motivated me to place the voices, opinions, and experiences of individuals with ASD in the center of my research (Bascom, 2012; Chilvers & Chowdhury, 2007; Gross, 2012; Herren, 2012; Montgomery, 2019; Mullin et al., 2014; Sinclair, 2012; Vivian, 2012; Walker, 2016; Zisk,, 2012; Zucker, 2020). In addition, the phrase and rhetoric 'person with autism' suggests something is wrong with you, as if the autism can be removed or separated from the person (Sinclair, 2012, p. 223). For this reason, **identity-first** language is used, compared to person-first language.

I also conducted two surveys during my research process. The first survey, *Art Therapists, Individuals with ASD, and Art Materials* (2019), was intended for art therapists who have worked with children with ASD and focused on material usage. The survey was sent to over 200 art therapists and received fourteen responses. Most of the responses stressed the fact that, like all children, children with ASD are all different and

need to be worked with on an individual basis, tailoring to their needs. The second survey, *Art by Individuals with Autism* (2020), was intended for autistic artists and also focused on material usage. This survey is a reflection of my research progression, learning to listen to autistic individuals and place their voices as a priority. I posted it on many Facebook groups for autistic artists, and received five responses. The respondents described what materials they work with and their creative processes.

This thesis begins by reviewing what autistic artists have to say about their art, perceptions, and experiences, because the voices of autistic individuals are missing from current clinical and scientific research. Politically, I think that we should hear from the individuals first, before we hear what researchers can observe and assume about them. The order of this thesis is a metaphor for shifts that I believe should take place within the realm of art therapy for autistic individuals. The voices of autistic individuals should be at the forefront of research about autism. For this reason, this thesis begins with a section tilted “Autistic Artists”.

Throughout the Autistic Artists section are points of listening, or larger themes that need to be heard and valued within the practice of art therapy. These points of listening are inspired by voices of autistic individuals (Bascom, 2012; Chilvers & Chowdhury, 2007; Gross, 2012; Herren, 2012; Montgomery, 2019; Mullin et al., 2014; Sinclair, 2012; Vivian, 2012; Walker, 2016; Zisk,, 2012; Zucker, 2020). Listening is a lesson learned through evolution of my research for this thesis. In the beginning of my research, the studies I was reading did not include the perspectives of the individuals the researchers were claiming to help. The **points of listening** include: **differences**

and similarities; experiences with receiving diagnosis; discovered talents, identity, and confidence; actions, behaviors, and interests; and **art for the sake of creation**. Within these points of listening I have incorporated direct quotes and gathered experiences from autistic individuals. This is modeling how I think research about autistic individuals should begin with and prioritize voices and experiences of autistic people. I am giving myself permission to speculate due to a lack of information conveying the detailed first hand experiences of autistic individuals.

Following the Autistic Artists section is a critical analysis of the medical model, the pathology paradigm, the neurodiversity paradigm, and Applied Behavior Analysis (ABA) therapy (Bunbury, 2019; Chapman, 2018; Sinclair, 2012; Vivian, 2012; Walker, 2016). During the evolution of my research I became aware that the researchers and medical professionals that I was relying on followed and abided by the medical model and the pathology paradigm, which is seen through the use of ABA therapy practices. The **medical model** assumes that if a diagnosis cannot be cured by medical professionals, then the individual is limited in their ability to participate within society (Bunbury, 2019; Vivian, 2012). I will italicize terms that suggest the implication of the medical model, such as *patients*, *symptoms*, *diagnosis*, *treatment*, and *therapy* in order to acknowledge the implications of the medical model and pathology paradigm in current research. The **pathology paradigm** is the related notion that there is one "right", "normal", or "healthy" way for human brains and minds to be configured and function and if your neurological configuration and functioning diverges from the standard of "normal", the "something is wrong with you" (Sinclair, J., 2012). The purpose

of **ABA therapy** is “to modify or diminish behaviors, as well as increase language, communication, social skills, attention, etc., in children with ASD” (Sandoval-Norton, A. H., & Shkedy, G., 2019). Because of the current dominance of the medical model, art therapists are also targeting these *symptoms* of ASD, as opposed to working with and understanding different behaviors and ways of being. The **neurodiversity paradigm** recognizes and respects all diverse minds as valuable (Sinclair, 2012; Walker, 2016). I believe that if the neurodiversity paradigm were applied to the way that people with ASD are treated, this would mean that their *symptoms* would be accepted, catered to, and worked with to enhance their experience of the world, as opposed to attempting to correct abnormal or different qualities of their ways of being.

Following discussion of the medical model, the pathology paradigm, the neurodiversity paradigm, and ABA, is a section critically looking at what researchers think are the *benefits* of art therapy, sprinkled with autistic voices and experiences. **There are differences between what researchers claim the *benefits* of art therapy are and with what autistic individuals are expressing**. The *Benefits* Embedded with Meaning section is organized in two main categories. Researchers identify external and internal *benefits* of art therapy for autistic individuals. External benefits involve receiving stimulation from outside environments and processing them, while internal *benefits* involve emotional affect. Throughout this section researchers are placed in conversation with the voices of autistic individuals.

Finally, a section organized by art material usage is presented. This section relates back to my original interest in material usage during art therapy with autistic

children. This section places significant importance on listening to what art materials autistic individuals find joy in using, and why. Art materials can also be considered as a flexible term, including the minds of autistic individuals as art materials and means of creation. For example, the autistic mind is considered an art material through using different perceptions, interests, and interactions with their surroundings to inspire and create art.

As I learned through the evolution of my research, **listening to the voices of autistic individuals is the first step in the reform of current art therapy practices with individuals with ASD**. Shifting from the pathology paradigm towards the neurodiversity paradigm is critical for autistic individuals to begin experiencing authentic and true *benefits* from art therapy. The act of creating art is a magical experience that will have great impacts when informed by the personal experiences of autistic individuals as a priority. This shift towards the neurodiversity paradigm is placing the magic of art back in art therapy, but can only be accomplished through listening to and learning from autistic people.

Autistic Artists

What skills do you associate with individuals on the autistic spectrum? In our society the media portrays autistic individuals as being highly skilled in subjects such as math or science. Autistic individuals having the ability to complete unheard of mathematical equations, or demonstrate intense skills in science have been highlighted, in films such as Rain Man, A Beautiful Mind, and Good Will Hunting. However, what has society learned about math and science? The creative arts foster growth in these core subjects. If you are familiar with STEM (science, technology, engineering, and math), you may also be aware of recent movements to add the arts, creating STEAM (science, technology, engineering, art, and math). Autistic individuals are not to be excluded from this patterned phenomenon, as “autistic individuals have a spectrum of talent as well as a spectrum of creativity” (Mullin et al ., 2014, p. 16). In other words, if there is greatness found in math, science, intense focus, and structured work, then there is an undeniable amount of creativity and imagination.

Autistic individuals are not being granted the opportunity to represent themselves. The intention of this section is to “enrich the portrait of ASD,” through showcasing autistic artists expressing their thoughts about their work, and what inspires it, using their voices (Mullin et al ., 2014, p. 16). Through highlighting creative works by autistic artists, using their voices, their understanding of their world, first hand insights regarding how they behave and communicate, and their feelings and thoughts, hopefully light is shed on the fact that autism is a way of being. Autism is a different experience of the world.

I hope to communicate this through points of listening, where I invite you to listen to the voices of autistic individuals. These points of listening are organized and categorized based on evidence that autistic people share regarding their experiences and perceptions. Points of listening include: differences and similarities; experiences with receiving diagnosis; discovering talents, identity, and confidence; actions, behaviors, and interests; and art for the sake of creation. Through these topics, I ask that you listen to what autistic individuals are saying.

What Autistic Artists Make Art About, and What They Have to Say About It

Topics and subjects that some autistic artists make their art about include interactions with the outside world, categorized by acknowledging differences and similarities, relationships, and discovering their "diagnosis" of ASD. In addition to external factors are internal thoughts, categorized by identity and confidence, behaviors, actions, intense interests, repetitions, perceptions of environments, and artmaking for the sole purpose of creation. These categories of art making have been compiled from two books, *Drawing Autism*, Mullin et al. And *The Hidden World of Autism: Writing and Art by Children with High-Functioning Autism*, Chilvers & Chowdhury. The intention of ensuring "that the artists expressed the thoughts about their work and the lives on their own terms, in their own voices" is emphasized (Mullin et al ., 2014, p. 16). Both center art made by autistic individuals accompanied with the artist's thoughts on their work.

External Interactions; The Outside World

We have failed to understand autistic children, their experiences and behaviors. For example, autistic individuals "...looking back on their school-days frequently report that no one made an attempt to understand them, and that they felt unwanted by their schools" (Chilvers, R., & Chowdhury, U., 2007, p. 32). We can begin to foster an understanding of how to interpret experiences and behaviors of autistic individuals by first learning to listen. My **first point of listening** is to hear thoughts of autistic individuals about how they describe their **differences and similarities** in relation to what is considered "normal" by existing social constructs, expressed through writings and realized in their art.

Many of these examples of voices of autistic people speaking about their experiences acknowledge that there are some things they experience differently, but at the same time many aspects of their lives are the same as anyone else. Everyone has different experiences and perspectives on moments in their life. In Janet Weedon-Skinner's poem, "My World Called Autism", age 17, she states "I'm only human. I'm like you. I just think different" (Chilvers, R., & Chowdhury, U., 2007, p. 18). Within the poem, Janet explains that there are "aspects of life she experiences differently and things she does differently. However, at the same time, there are many things about her that make her the same as any young woman of her age" (Chilvers, R., & Chowdhury, U., 2007, p. 18). Janet also points out that while she may seem different, she is special, just as everyone else is.

In Jordao Allen's poem, "About Me", age 15, he states **"**apart from autism, there's nothing unusual about me" (Chilvers, R., & Chowdhury, U., 2007, p. 19). In Jordao's poem, he "addresses the issue of whether he feels different or 'normal' in his life, and whether being autistic is something he wants other people to know about**"** (Chilvers, R., & Chowdhury, U., 2007, p. 19). He describes that sometimes he feels as if he has to filter his actions, keeping his autism a secret. Then he describes parts of his life that make him just like any other adolescent, such as where he is from, food he enjoys, video games and sports, as well as the "bad turn of events" of his parents divorcing when he was young.

Acknowledging differences presents the need to understand the differences that autistic individuals describe. Louise Parker's poem, 'The wrong side of the two-way mirror', age 12, speaks on some of the differences in her life. She states:

> "It all stems from aspie's inability to pick up social cues and convention, and therefore it can feel like the other kids are mind-readers in comparison to you**,** and believe me, they take advantage the best they can. Doing things that they know will confuse you, or things they know you will have no scripted response to" (Chilvers, R., & Chowdhury, U., 2007, p. 35).

She describes some of the differences in her life as being rooted in understanding social cues and conventions. To a further extent, she feels as if some children notice her challenges and use it to their advantage, as if they are mind readers compared to her. This is a cruel injustice that autistic children experience. However, Louise accepts herself for who she is, stating "I'm not desperate to be neurotypical" (Chilvers, R., &

Chowdhury, U., 2007, p. 35). Through listening to what individuals have to say about their differences and similarities, we can begin to understand their experiences and perceptions, which is the first step to providing authentic therapies, including art therapy.

My **second point of listening** is to hear thoughts of autistic individuals about how they describe their **experience with receiving their diagnosis**, seen in their art and described in writings. The experience of receiving the diagnosis of autism spectrum disorder is divided. Some individuals express wanting to hide their diagnosis and that it has “a definite set of negative consequences”, while others view receiving their diagnosis as a way to further their understanding of themselves (Chilvers, R., & Chowdhury, U., 2007, p. 29). The diagnosis of ASD attaches a label and may make those diagnosed “...feel there is something ‘fundamentally wrong’ with them...”, which may “...cause resentment towards their parents and professionals...” (Chilvers, R., & Chowdhury, U., 2007, p. 29). Variation in experiences of receiving the diagnosis of ASD can be seen in two pieces of writing from children. Brendan Young, age 16, expresses that being diagnosed with autism has placed new rules and limits on his life (Chilvers, R., & Chowdhury, U., 2007, p. 29). He describes not being able to participate in activities with his friends that before his diagnosis he was allowed to do, and instead being kept inside.

The example provided by Brendon Young encompasses what has been done to those diagnosed with ASD, by placing limits on them instead of fostering what they are fully capable of doing. Chilvers and Chowdhury state that “rather than being a

categorically separate condition removed from ‘normal’ experience, autism is at the extreme of a continuum of behaviours seen in us all” (2007, p. 30). The counter-perspective of receiving the diagnosis of ASD is others feeling as if it has provided them with some fundamental understanding about themselves and who they are. Martin Hal-fead, age 14 describes that receiving their diagnosis as providing understandings of themselves, stating that “it was a gust of wind, lifting once and for all the veil of confusion that had hung over me for several years” (Chilvers, R., & Chowdhury, U., 2007, p. 29). This is an example of an individual with ASD receiving their diagnosis in a positive manner.

In J. W. Bridges’ painting , “What AS Looks Like”, acrylic 11x14 Inches, 2008, hope for understanding ASD is the artist’s mission. Regarding their painting, they state:

> “I hope it not only helps people to understand, but to comfort them as well. I want to let them know that they are not alone. It is my most personal piece to date. The bag over the head, inspired by The Mars Volta’s album Frances the Mute , is to show how I feel alone with Asperger’s. The Möbius strip for continuous thoughts; the eyes crossed out for the feeling of always being watched and the difficulty of making eye contact. The silver text represents my narrow and intense interests. The clouds show what people with AS struggle to see. And the scribblings are the thoughts and phrases that were in my mind when I painted this” (Mullin et al ., 2014, p. 32).

This artist statement addresses mixed feelings of receiving a diagnosis of ASD, while also describing their experience with ASD. They hope that their work can make others

feel as if they are not alone, and for others to know that there are people who experience life in a similar way.

Alyssa Zisk discusses hiding from their diagnosis in a poem titled “I Hid”, because they knew what was done to autistic children (Zisk, A., 2012). They talk about being able to pass for simply being “weird”, and not wanting the label of autistic because it would give other people too much power, stating that: “I knew that the autistic needed to be made normal in ways that merely weird could escape” (Zisk, A., 2012, p. 190). Zisk is referencing being made “normal” through the use of therapy, by reducing *symptoms* of autism that are a part of the person they are. Zisk explains: “I knew they’ll try to break the person I am in order to fix the person I never was” (Zisk, A., 2012, p. 191). Zisk’s account of receiving their diagnosis expressed fearful of what might be done to them because of their diagnosis. They did not want to be made “normal,” stripped from their autistic identity.

Internal: Its What’s on the Inside the Counts

My **third point of listening** to hear how autistic individuals describe their **internal discovered talents, identity, and confidence**, displayed through their art and writings about it. Through nurturing expressive forms of communication we can further our understanding of personal experiences of individuals with ASD. While learning how autistic artists “engage, filter, and interact with the world,” we can also view their talents, and how discovering their talents lead to developing a personal identity and confidence through art (Mullin et al., 2014, p. 16). Nurturing artistic expression is significant as art

can become an “aspect of identity-- where words fail, the visual can be used to communicate” (Mullin et al., 2014, p. 16). Through developing identity confidence is gained. Mullin et al. explains that “art has helped many of these (autistic) people gain confidence that has helped them enjoy life more” (Mullin et al ., 2014, p. 16). Begin listening to what autistic artists have to say about their art in relation to their identity using the following examples.

While describing her piece, “A Portrait of the Artist”, mixed media, 5x4 feet, Emily L. Williams explains that while choosing imagery to incorporate in her self portrait “...sometimes I didn’t know myself. All I knew was that I wanted to draw them; somehow it was about autism (though don’t ask me how), and needed to be included” (Mullin et al., 2014, p. 22). Williams continues, stating “that’s what my autism is, all of these random parts in my life, memories, likes, dislikes, emotions, everything thrown together into one brain. Sometime there’s an obvious reason; sometimes there’s not” (Mullin et al., 2014, p. 22). In this example, the artist explores their identity as a part of their autism through visual representation.

While describing the piece, “All About Money”, mixed media, 16 x 20 inches, 2009, Marilyn Cosho discusses her inspiration for her most common medium of collage. Cosho states that most of her collages “begin with an intangible, overwhelming feeling that I then try to concretely represent. My collages are vast feelings caught in a visual second” (Mullin et al., 2014, p. 37). This speaks to visual art serving as a valid form of communication. She explains that she enjoys creating art “because I am most at ease in a self-absorbed state and art is my most direct form of self-expression. It helps

me affirm my identity, which I for so long did not understand" (Mullin et al ., 2014, p. 37). Through beginning her pieces with deep and intense feelings and visually representing them by piecing them together with collage material, Cosho reveals her identity.

Actions, Obsessions, and Special Interests

My **fourth point of listening** is to hear thoughts of autistic individuals about how they describe their **actions, behaviors, and interests** displayed in their art and expressed in their writings. This includes repetitions and patterns, as well as environments, such as mechanisms of transportation, landscapes, other worlds, and history. This is a significant point of listening, as this is a way to begin to understand how autistic individuals see, process, filter, and represent the world through their perception. Actions, behaviors, and interests are a window to understanding the minds of autistic individuals.

Autistic children are known for engaging in **repetitive** behaviors, which can serve as a method of stress reduction in order to calm their anxiety, or as a way to satisfy senorsy needs or modulate arousal (Chilvers, R., & Chowdhury, U., 2007, p. 70). Repetitive behaviors or actions that bring comfort are known as stimming within the autistic community. The physicality of repetitions found while creating art can be seen in Marilyn Cosho's piece, "String Fairy", mixed media, 12 x 16 inches, 2009 (Mullin et al., 2014, p. 51). Cosho states that "...the repetitive movement in creating art is calming. My layout and design often reflect the autistic mind— being drawn to detail and order. Creating order counteracts feeling fragmented" (Mullin et al ., 2014, p. 51). This is an

example of an autistic individual harnessing their participation in repetitive movements and behaviors to create art.

Visual repetitions can also be considered as overarching themes seen in art by individuals with ASD. For example, some autistic individuals find special interests, that some refer to as obsessions, that dominate their art. This is not unusual for artists, as many artists focus on particular subject matter. Chilvers and Chowdhury claim that special interests of autistic people differ from those of neurotypically developing people, stating that they “may concern things that may not be of interest to many people, such as plastic bottles, milk tops and drain pipes. A distinction can be drawn here between circumscribed interests and unusual preoccupations” (2007, p. 79). It is suggested that circumscribed interests are those of typically developing children, while unusual preoccupations are things that would not be of interest to others. This is prescribing interests as normal and abnormal. Who gets to decide what's a normal interest? What is wrong with having different interests? autistic individuals often describe their “unusual preoccupations” as inspiration for their art.

When discussing his piece, “Vogels” (“birds” in Dutch), in colored pencil, 19 ¾ x 25 ½ inches, 2008, David Barth states that his obsessions inspire him (Mullin et al., 2014). Barth continues to explain that “my obsessions depend on what I come across and can’t get my mind off. By thinking about it constantly, I get restless. Drawing things that are related to my obsessions makes me quieter” and is an example of using art as a visual outlet for heightened interests (Mullin et al ., 2014, p. 64). However, Barth explains that “sometimes, though, my drawings make the distance between me and the

outside world bigger, because the objects of my fascination are not always socially accepted (vampires, war scenes, etc.)" (Mullin et al ., 2014, p. 64). Barth accounts for how visually expressing his interests help him work through them internally, but also creates distance from him and the outside world.

A common subject of particular interest to autistic people is observed under the theme of immersive **environments**. This includes mechanisms of transportation, landscapes and nature, fantasy worlds, and aspects of history, and is a continuation of the external experiences of those with ASD. Listen to what these artists express about how they experience the world through their eyes everyday in relation to external environments. The environments of mechanisms of transportation function as a way to marvel at the act of a machine while watching the world go by. Two different categories of mechanisms are hubs, where public transportation takes place and intersects, and vehicles, where transportation takes places more personally. A mother of a child with ASD named Bailey comments on her thoughts of his artwork of vehicles. She states that "Bailey loves cars and all of his drawings will have at least one car in them as a central part of the picture. His art captures so much detail it helps me to see how he is flooded with information from every source but at the same time he can focus on the tiniest detail and create art" (Mullin et al ., 2014, p. 71). This is a great perspective of being overloaded with sensory information while also taking in every detail.

Jake Ballard, age 17, discusses his current obsession of traffic lights in "About Me" (Chilvers, R., & Chowdhury, U., 2007, p. 73). He states:

> “My major obsession at the moment is traffic lights. I LOVE THEM. I time them. My favourite light is the amber light when it is about to turn red because if you go through as it changes you feel like you have just made it. This feeling is excellent and it makes me feel YESSSS!, we went through an amber light! I talk about traffic lights a lot but my mum has explained that most people don’t find them as interesting as I do” (Chilvers, R., & Chowdhury, U., 2007, p. 73).

This extends taking in every detail during transportation, but also finding beauty and appreciation in the everyday.

For example, some art of **landscapes** by autistic individuals account for every detail noticed. Mullin et al. elaborates that “...every ray of sunlight is accounted for or every autumn leaf is aflame with color. The detail and beauty related to these scenes can help us appreciate how some of the artists may see their world every day” (2014, p. 14). This further extends Bailey’s mother’s statement on being overloaded with sensory information while still capturing every detail. Eleni Michael speaks about their piece, “Picture #007”, describing their need to “...create a mysterious, beautiful image of nature. This painting is about my yearning for beauty and harmony in the world. (As a keen gardener I express the same desire in that pursuit.) The painting also depicts the relationship between flora and fauna; the natural chain, every link, depends on the other" (Mullin et al ., 2014, p. 94). This statement is in tune to the interconnectedness of human experiences in natural environments.

The environment of **other worlds** highlights and celebrates creativity and imagination, while creating new worlds. Art of other worlds represent autistic individuals’

desire to escape reality and indulge in fantasy. Eleni Michael's piece, The Green Man, gouache and india ink, 11 ¾ x 11 ¾ inches, 2007 is about the myth of the Green Man, which "exists in so many diverse cultures and is therefore a universal theme" (quote from Eleni Michael), (Mullin et al., 2014, p. 112). Michael finds connections and community within other worldly legends.

History can be considered a work inspired by particular environments as points in time. This body of work is created and inspired by interests in the past. John M. Williams discusses his piece titled "Abraham Lincoln", paper and collage, 8 ½ x 12 inches, 2008, stating: "When I see something inspirational like a beautiful Western scene or learn about an inspirational character from history, like Lincoln, I impulsively want to create a collage to capture the essence of the person or the place. I enjoy creating a coherent image from many tiny pieces of paper— order out of chaos" (Mullin et al., 2014, p. 116). Further discussing order out of chaos, Williams states that it is an analogy of an overload of sensory input, captured through collage.

Another take on history as environments is Holly Sidaway's perspective of her obsessions (Chilvers, R., & Chowdhury, U., 2007). She describes her obsessions as periodic, and states that: "I think of them as being like periods in natural history, Palaeozoic, Mesozoic, etc. They are quite intense, and can last any length of time from a week to over a year, almost completely taking over my mind for this period" of time (Chilvers, R., & Chowdhury, U., 2007, p. 74). Thinking of her own interests or obsessions as eras in history is a beautiful metaphor that communicates the developing and evolving nature of particular interests of those with ASD.

Lessons from Obsessions

Now that we have explored some special interests of autistic individuals, I want to return to the question of who gets to decide what interests are normal and accepted. Looking at the lives of people such as Isaac Newton and Albert Einstein, "...they viewed social contacts as something that distracted them from important work, and both had a history of being isolated and lonely as children" (Chilvers, R., & Chowdhury, U., 2007, p. 81). Their obsessions and lack of social investment contributed to their famous achievements. For devoted success "...the necessary ingredients may be an ability to turn away from the everyday world, from the simple practical, an ability to rethink a subject with originality so as to create in new trodden ways, with all abilities canalised into one speciality (Hans Asperger)" (Chilvers, R., & Chowdhury, U., 2007, p. 81). Specialized interests and knowledge have the potential of leading to new discoveries and advances. For example, "...style of thinking and pattern of working seen in autistic individuals who can work for days, perhaps even months, on the same topic without boredom and often approach problems from a 'different angle' to find a novel solution" (Chilvers, R., & Chowdhury, U., 2007, p. 82). Special interests, especially creative endeavours, of autistic individuals must be given opportunity to reach their full potential.

My **fifth point of listening** to hear thoughts of autistic individuals about how they describe their **art for no other purpose than the act of creation.** Mullin et al. explains that "...for some, the compulsion to create illustrations is simply that--an inexplicable urge that must be satisfied" (Mullin et al ., 2014, p. 16). In another example, Kay Aitch, states that "everything around me inspires me to create art. What inspires me about

creating art is the process of making marks, the feel of things, the seeing shapes and patterns in things" (Mullin et al ., 2014, p. 33). The artistic process and the tactile and visual qualities of art materials motivate creation.

Esther Brokaw, while discussing “Nude”, oil, 20 x 30 inches, explains her desire to explore line, color, and shadows of the human body. She states, “I was inspired by this body position; I liked the lines. I wanted to play with colors in the shadows of the body in an impressionistic, even pointillism style. Not having a model, I used myself and a camera with a timer. This was my third oil painting” (Mullin et al ., 2014, p. 131). Westley Cedeno, while talking about his piece “Untitled”, 5 x 5 inches, charcoal on bristol paper, 2009, explains his experimentation with charcoal with a focus on texture and shading. Cedeno explains “what inspires me to create art is the vibrancy of colors, hues, and the representation of different textures. In addition, I love to create, experiment, and be open with the arts. Anything in art is valid” (Mullin et al ., 2014, p. 137). Creating art serves as an outlet for expression and communication where social constructions can be questioned.

The Medical Model, The Neurodiversity Paradigm, Applied Behavior Analysis

In order to place the autistic artists and researchers in dialogue we must explore theories that lie at the foundation of art therapy. The medical model has an undeniable influence on current art therapy practice and theory. Related to the medical model is the pathology paradigm. The neurodiversity paradigm calls for a shift away from the pathology paradigm. However, ABA therapy, as well as theory surrounding it, is in alignment with the pathology paradigm and the medical model. ABA is used in art therapy practices, and contributes to the targeted goals of art therapy, which focus on changing the behavior of the individual undergoing art therapy. Hopefully through listening to what autistic individuals have to say, the priorities of art therapy can shift to focusing on individuals undergoing the therapy and their needs.

The Medical Model

The medical model of disability assumes that if a diagnosis cannot be cured by medical professionals, then the individual is limited in their ability to participate within society. It is the notion that disabled bodies need to be fixed by medical professionals in order to conform to societal standards of living. Quality of life is compromised for achieving levels of what society determines as normal. The medical model views disability as a pathology embedded within the individual, and therefore, separation of the disability from the person as a cure. The medical model does not view disability as a part of personhood, or a variation of human experience. The goal of the medical model is to cure individuals of disease or disability for the most normal experience of human

life, allowing society to remain stagnant and not adapt to different experiences of personhood.

The medical model communicates to autistic individuals that the way they behave is not acceptable. For example, autistic scholar, A. F. Vivian, describes that "...any habit, style of movement, facial expressions, words, way of sitting, way of communicating, etc...that is commonly associated with disabled people is: the opposite of success, and must be destroyed to improve someone's functioning, and, morally wrong in some cases" (2012, p. 250). This assumption of the medical model communicates to autistic individuals that they must suppress qualities of themselves and modify their natural way of being. In support, "habits that mark someone as a person with an intellectual disability or autism, such as flapping hands, are inherently bad and people who do them should be trained not to" (Vivian, A. F., 2012, p. 250). Modifications to behavior and communication are for the comfort and convenience of those around individuals with disabilities. The medical model sends a message that "...people with disabilities should always try to communicate in a way that is comfortable for people without disabilities, even if it makes people with disabilities uncomfortable" (Vivian, A. F., 2012, p. 250). However, the medical model serves as a framework for medical professionals, including art therapists.

The word *diagnosis*, sometimes *treated* with *art therapy*, assumes the medical model, and its implications. S. Bunbury explains "...the medical model assumes that the disabled person's autonomy is limited due to the impairment; therefore, if medical professionals cannot cure or rehabilitate the person, then she or he is considered as

someone who as a consequence has a limited ability to participate in society" (Bunbury, S., 2019, p. 28). Decreasing participation results in social exclusion and negative stereotypes. In addition, "medical professionals or specialists have been tasked with the job of rectifying or curing the impairment, which in some cases patronize or pity the disabled person", including art therapists (Bunbury, S., 2019, p. 28). Terms such as *patients*, *symptoms*, *diagnosis*, *treatment*, and *therapy* all imply the medical model. Clinical researchers discuss *symptoms*, in comparison to a way of being in the world. Patients can be prescribed art therapy as a form of treatment for autism, which has an aim of reducing *symptoms*. Contrasted, creating art can improve the autistic experience of the world, bringing them personal happiness, discovery, and fulfillment. This requires a shift in thought, or a paradigm shift towards the neurodiversity paradigm.

The Neurodiversity Paradigm Shift

Sinclair explains that "a paradigm is a set of fundamental assumptions or principles, a mindset or frame of reference that shapes how one thinks about and talks about a given subject" (Sinclair, J., 2012, p. 225). Paradigms shape the way one interprets information, and can be thought of "...a lens through which one views reality" (Walker, N., 2016). A paradigm shift, or a shift in thought, can be profound for the way that autistic individuals are understood and treated. The medical model is deeply intertwined with the pathology paradigm.

Currently, individuals with ASD are viewed from the lens of the pathology paradigm, supported by the medical model of disability. Sinclair explains the **pathology**

paradigm as believing that there is one “right”, “normal”, or “healthy” way for human brains and minds to be configured and function and if your neurological configuration and functioning diverges from the standard of “normal”, that “something is wrong with you” (Sinclair, J., 2012). This is the current foundation for art therapy involving individuals with ASD. Issues or *symptoms* are identified as abnormal and are set out to be corrected through modified ways of being.

Sinclair presents a call for **a paradigm shift, shifting from the pathology paradigm, which is in alignment with the medical model, towards the neurodiversity paradigm** (2012). Doing so would result in shifting public discourse surrounding autism. Sinclair describes the **neurodiversity paradigm** as recognizing and respecting the diversity of brains and minds as a natural, healthy, and valuable form of human diversity (Sinclair, J., 2012). All of the diversity dynamics that manifest in society in relation to other forms of human diversity also manifest in relation to neurodiversity. There is no “normal”. The neurodiversity paradigm applied to the way that people with ASD are treated would mean that their *symptoms* are accepted, catered to, and worked with to *benefit* their experience of the world, contrasted to attempting to correct abnormal or different qualities.

A shift in language and rhetoric is necessary for a shift towards the neurodiversity paradigm (Sinclair, J., 2012). For example “...the appropriate language for discussing medical problems is quite different from the appropriate language for discussing diversity” (Sinclair, J., 2012, p. 230). Recall the medical model terms such as *symptom*, *benefit*, and *therapy* that suggest that something is wrong with you, and the need for

being cured. Language plays a key role in shaping thoughts. The phrase and rhetoric ‘person with autism’ also suggests something is wrong with you, as if the autism can be removed or separated from the person (Sinclair, J., 2012, p. 223). While emphasizing that autism is an essential feature of them as a person, Sinclair expresses that “... autism is a part of me. Autism is hard-wired into the ways my brain works. I am autistic because I cannot be separated from how my brain works” (2012, p. 223). Autism can not be removed from the person; autism is an aspect of personhood.

The pathology paradigm is a social construction of normalcy. Autistic scholar Nick Walker explains that:

> “Through the lens of the neurodiversity paradigm, the pathology paradigm’s medicalized framing of autism and various other constellations of neurological, cognitive, and behavioral characteristics as “disorders” or “conditions” can be seen for what it is: a social construction rooted in cultural norms and social power inequalities, rather than a “scientifically objective” description of reality” (Walker, N., 2016).

Neurological, cognitive, and behavioral characteristics of autism are valid ways of being and are of value, supported by the neurodiversity paradigm. In addition, “the choice to frame the minds, bodies, and lives of autistic people (or any other neurological minority group) in terms of pathology does not represent an inevitable and objective scientific conclusion, but is merely a cultural value judgment” (Walker, N., 2016). This expands upon the social construction of the pathology paradigm, and refuses it as fact. However, **the pathology paradigm and the medical model of disability controls the**

discourse on autism. The result is "...autism-related professional and institutional praxis is overwhelmingly dominated by a focus on "fixing" autistic persons – i.e., trying to make them non-autistic…" (Walker, N., 2016). "Fixing" autistic individuals is done at their personal deprivation "...of any significant focus on societal acceptance of autism, accommodation of autistic needs, removal of systemic barriers to access and inclusion, or supporting autistic persons in thriving as autistic persons " (Walker, N., 2016). Attempting to remove an autistic characteristic of an individual is commonly done through traumatic and abusive therapies, such as ABA.

Applied Behavior Analysis (ABA)

ABA therapy is a form of behavior therapy that relies heavily on external reinforcement, or conditioning (Sandoval-Norton, A. H., & Shkedy, G., 2019). The purpose of ABA is "to modify or diminish behaviors, as well as increase language, communication, social skills, attention, etc., in children with ASD" (Sandoval-Norton, A. H., & Shkedy, G., 2019). Targeting these *symptoms* of ASD is what art therapists are also attempting to do, contrasted to working with behaviors and ways of being. Individuals with ASD are being attacked, suppressed, and corrected. In addition, "the main tenets of ABA follow behaviorist theories that suggest that behavior is caused by external stimuli in the environment, which is why a reward (external) would reinforce a behavior, and punishment (external) would discourage a behavior" (Sandoval-Norton, A. H., & Shkedy, G., 2019). Art therapy involving children with ASD also heavily relies on

ABA theory, adopting the principle that behavior is a reaction caused by the environment.

ABA therapy is a form of behavior therapy commonly used with individuals with ASD. Nick Walker expresses “the worst and most widespread abuses have been those perpetrated under the guise of “behavioral therapies” (e.g., Applied Behavior Analysis, or ABA), which have been used to torture and traumatize two generations of autistic children, and which remain popular with parents and professionals despite the warnings of autistic adult survivors” (Walker, N., 2016). Parents and professionals are not listening to the individuals themselves and are conforming to the social construct of the pathology paradigm through the implication of behavioral therapies, including ABA. In addition, “the popularity of these abusive “behavioral therapies” can be traced directly to the focus on the impossible goal of making autistic persons into non-autistic persons, a goal implicitly mandated by the pathology paradigm” (Walker, N., 2016). The pathology paradigm is responsible for attempting to make autistic individuals less autistic.

There is a **well-established concern of ABA therapy causing trauma,** through attempting to change behaviors by withholding comfort items and implementing punishments. Recall the fourth point of listening, to hear thoughts of autistic individuals about how they describe their actions, behaviors, and interests. J. Bascom claims that “when you’re autistic, it’s not abuse. It’s therapy” (2012, p. 178). For example, “they actually teach, in applied behavioral analysis (ABA), in special education teacher training, that the most important, the most basic, the most foundational thing is behavioral control. A kid’s education can’t begin until they’re “table ready” (Bascom,

2012, p. 181). J. Bascom describes “table ready” as having quiet hands. To establish quiet hands, “hands are slapped down and held to a table or at sides for a count of three” (Bascom, 2012, p. 181). This idea supports that behavior must be controlled, modified, and suppressed. However, there is a lack of consideration for how the child receives learning. Perhaps the child absorbs more information when allowed to continue to do their stimming actions or behaviors, such as flapping, clapping, or twirling.

In addition, the US government reported that ABA does not work effectively; “the Department of Defense reported to Congress on Oct 25, 2019 about Comprehensive Autism Care that after one year of ABA treatment 76% of autistic individuals had no change in *symptoms* and 9% worsened by more than 1 standard deviation” (altteaching.org, 2019). Yet ABA is continuing to be implemented or adopted. In addition, “ABA is a form of non-congregate institutionalisation. And institutionalisation is an inherently harmful system” (Montgomery, 2019). ABA is entangled within the system that the pathology paradigm created and appears to be at the foundation of art therapy with children with ASD, by identifying *symptoms* and altering environments while implementing punishments in an attempt to alter behaviors.

Bridging Critical Disability Theory and Clinical Research

The perception of autism is currently dominated by the pathology paradigm and the medical model. This is significant to clinical research because whichever paradigm autistics are viewed through will drive the direction of research about them (Chapman, 2018). This explains why all of the research I was consuming in the beginning of my

thesis excluded the voices of autistic individuals, as it was guided by the pathology paradigm and the medical model. As a result, "...the research will, due to being interpreted via whichever given paradigm driving it, at least often seem to support or confirm the assumptions of that paradigm" (Chapman, R., 2018, p. 373). Due to the dominance of the medical model and pathology paradigm, research regarding autism reflects values of the medical model and pathology paradigm.

Consider the medical model, the pathology paradigm, and ABA in the direct context of art therapy with autistic individuals. ABA can be viewed as one of the realized forms of the medical model and the pathology paradigm in practice. ABA is used in art therapy practices as a means of establishing the targeted goals of art therapy, which are determined by the medical model and pathology paradigm. ABA-inherited goals of art therapy focus on changing the behavior of the individual undergoing art therapy, through positive or negative reinforcement, disregarding trauma it may cause. There is also the underlying principle of conditioning behavior during art therapy. Modified behaviors, flexibility, and skills taught during art therapy are thought to transfer into other aspects of the individual's life. However, autism is a "...minority mode of neurocognitive functioning that is disabled by a hegemonic "neuro-typical" (i.e., "normal") society," which is reinforced through the medical model and pathology paradigm (Chapman, R., 2018, p. 371). The disablement of neurodivergent individuals, particularly autistic individuals, by societal norms, is continued through the practice of art therapies implementing ABA therapy and guided by the pathology paradigm and the medical model.

In comparison, the neurodiversity paradigm views individuals with neurological disabilities as neurominorities. Chapman states, “being autistic, for example, as autistic self-advocate Jim Sinclair puts it “colors every experience, every sensation, perception, thought, emotion, and encounter, every aspect of existence” (1993), meaning that autism is not best thought of as a condition that alters a preexisting person, but rather as a different ‘way of being’” (Chapman, R., 2018, p. 375). Therefore, a neurominority can be viewed as another way of existing. Through the neurodiversity paradigm, autism can be seen “as a political identity with its own culture and shared vocabularies, just as we can talk about gay culture despite there being no “gay gene” (Chapman 2016)” (Chapman, R., 2018, p. 375). The neurodiversity paradigm views autism as s way of being, including its own culture.

Regarding the social model of disability explained by Chapman, “the neurodiversity paradigm is intertwined with the social model of disability, whereby the disablement (or harm, distress, or suffering) of minority ways of functioning stems from centrally from social norms and structures” (2018, p. 375). Theorists of the social model of disability have established a distinction of individual impairments or limitations and societal disablement. In support, “the central point is that all humans have various limitations (whether physical or mental), but, for the most part, they only become disabled when the norms and structures of society stop them from functioning” (Chapman, R., 2018, p. 375). Society determines what limitations are ‘normal’ and can be accepted, and what limitations are to be disabled from functioning within society.

Current art therapy practices and principles have deep roots in the medical model, the pathology paradigm, and ABA. The following places clinical researchers and art therapists in dialogue with the medical model, the pathology paradigm, the neurodiversity paradigm, and ABA. What researchers and art therapists believe are the benefits of art therapy for autistic individuals will be explored and placed in conversation with the medical model, the pathology paradigm and neurodiversity paradigm shift, and ABA. The voices of individuals with ASD are presented in relation to the claimed benefits of art therapy, which are driven by research that is highly influenced by the pathology paradigm and the medical model and implemented using ABA therapy.

"Benefits" Embedded with Meaning

Autistic people are having experiences that researchers are not accounting for. *Benefits* of art therapy *treat* observed *symptoms* of being neurodivergent, attempting to alter ways of being of individuals with ASD. However, "...there is more to them than a list of '*symptoms'*, and their complex and idiosyncratic natures cannot be reduced to features on a questionnaire or the summary of a clinician's brief interview" (Chilvers, R., & Chowdhury, U., 2007, p. 11). Although these *symptoms* of the way that autistic people experience life are sometimes a reality, the *benefits* of art therapy should not silence or alter these experiences for social gain. Art therapy should be enhancing experiences.

The medical model and the implications of curing individual's *symptoms*, implies that "...any habit, style of movement, facial expressions, words, way of sitting, way of communicating, etc...that is commonly associated with disabled people is the opposite of success, and must be destroyed to improve someone's functioning and morally wrong in some cases" (Vivian, A. F., 2012, p. 250). This method of altering the way of being of an individual, supported by the prescription and application of art therapy, does not consider how the individual themself is negatively affected. Recall the first point of listening, to hear thoughts of autistic individuals about how they describe their differences and similarities in comparison to what is considered "normal" by existing social constructs, expressed through writings and realized in their art.

By minimizing of autistic symptoms and suggesting the need of a cure of autism, the medical model implies mourning of a living person. It is fundamentally wrong to mourn for a living person, supported by Sinclair (Vivian, A. F., 2012). Curing autism or

minimizing austic characteristics communicates to autistic individuals to "..be just like everyone else, or don't be anything at all" (Bascom, J. 2012, p. 192). Bascom describes complete and utter psychological and emotional warfare. She explains that "no one has to threaten and force me into some version of myself that is less visibly disabled, less obviously autistic, less real and I guess less threatening. I've carved off all of those edges of myself into a smooth facsimile of what I need to be" (Bascom, J. 2012, p. 195). I can speculate this is because of societal constructs placed upon Bascom. In addition, Bascom continues to state that "I have learned how to fake being normal, being human well enough to avoid some sort of weird ability-based xenophobia" (Bascom, J. 2012, p. 194). Learning how to hide and suppress aspects of yourself associated with autism is not benefitting the individual.

Bascom's testimony is an example of what current research is missing. Research is guided by the paradigm that it assumes. Research surrounding art therapy and autistic children is directed by the pathology paradigm and the medical model. Through this, the experiences of individuals undergoing therapies is not accounted for. Current research contains many true, undeniable facts. For example, autistic individuals perceive their senses differently than neurotypical individuals. However, current research adopts the notion of decreasing autistic characteristics as much as possible, by framing the reduction of autistic characteristics as a form of regulation.

Researchers claim that children with ASD *benefit* from art therapy through improvement of their existing *symptoms,* or observed characteristics associated with ASD. Researchers find core *symptoms* of ASD include difficulties with sensory

regulation, behavioral expressions, communication, and emotional regulation. Sensory regulation allows one to remain focused while receiving stimuli from the environment. Visual, tactile, auditory, and olfactory stimulants often overwhelm individuals with ASD, distracting their focus and attention. In addition, sensory overload may be the underlying cause of other *symptoms* of ASD, such as behavioral outbursts, tantrums, and a lack of communication. Behavioral expressions may include repetitive movements and phrases that disrupt everyday activities. Researchers also claim that children with ASD feel emotions and process information differently than neuro-typically developing individuals, and therefore, researchers believe that children with ASD have a difficulty understanding how others communicate in social interactions. Researchers found that art therapy *benefits* sensory regulation, behavioral expressions, communication, and emotional regulation.

Abiding by the medical model, art therapy works with these external, outer world, *symptoms* of ASD through management of the environment and how children with ASD respond to it. Management of how children and individuals with ASD respond to their environment is essentially altering their way of being. An internal, inner world *symptom* of ASD is a lack of emotional regulation, according to researchers. Art therapists claim that art therapy treats *symptoms* of ASD through identifying negative responses that provoke *symptoms,* and replacing them with neutral or positive responses. The following sections discussing the benefits of art therapy presented by researchers will explore what researchers claim the benefits of art therapy are, followed by an insertion of autistic voices and assumptions.

Sensory Regulation

Researchers claim that one of the core *symptoms* of autism spectrum disorder is an inability of the body to regulate sensory intake. Art therapist, H. Durrani, explains sensory integration dysfunction (SID) as an atypical response to external stimuli, which includes smell, taste, vision, hearing, kinesthetic, vestibular, or proprioception. It is agreed across current research that art therapy provides *benefits* to sensory issues of autism spectrum disorder. Art therapy and the stimulating nature of art materials provide sensory stimulation that can be harnessed by the art therapist and utilized to aid individual sensory needs of children with ASD. Explained by H. Durrani (2019):

> "The variety of textures, colors, smells, and tastes of art materials have an inherent capacity to inhibit or induce emotional and sensory responses (Hinz, 2016). The visceral quality of art materials and application techniques can involve whole body movements. These in turn can stimulate different somatosensory and emotional regions of the brain, thereby generating psychosomatic reactions that can regulate affect (Hass-Cohen & Findlay, 2015). Therefore, art therapists can harness the inherent qualities of art materials and their uses to supplement sensory regulation" (Durrani, H., 2019).

Art therapy enables sensory regulation by promoting stimulation through exposure to art materials in a controlled and safe environment. Different materials such as "tin foil, bubble wrap, or Styrofoam can be crushed or pressed to produce various sounds. Scented paint, pencils, crayons, and glue engage the sense of smell" (Durrani,

H., 2014, p. 103). For example, “clay, paint, goop, sand, and/or play dough may be manipulated, beaten, and stretched to provide proprioceptive input. The art therapist discovers the child’s response to different materials at different times, and teaches them how and when to use particular materials for their benefit” (Martin, N., 2009). Doing so allows stimulant materials to be presented in a controlled manner and utilized to individual needs. Art therapists have found that particular senses can be isolated and *targeted* for improvement of receiving sensory intake by modifying material selection and use.

Conversely, this is in alignment with the pathology paradigm, and the need to fix or correct atypical behaviors. The above is an example of how ABA is applied within art therapy through altering environments and controlling behaviors for desired compliance. Through listening to the experiences of autistic individuals, we can assume the authentic benefit of art therapy is personal fulfillment. If particular actions and materials involving the sense bring the individual in art therapy positive feelings, it should be highlighted and further explored. Autistic artist Kay Aitch, testifies “what inspires me about creating art is the process of making marks, the feel of things, the seeing shapes and patterns in things” (Mullin at al., 2014, p. 33). The sensory experience of individuals with ASD undergoing art therapy should be directed by their likes and dislikes of art materials and usages, and exploration of what they like should be scaffolded.

Visual

Researchers have found that visual aspects of sensory regulation of autistic children are “characterized by an uneven profile, with islands of superior processing of fine details, but potential impairment (deficit language) at the global level, with respect to visual attention, biological motion, and color vision” (Stewart, C. et al. 2016). *Art therapy* is thought to *benefit* visual regulation by working with these “islands” of superior processing of fine details. Art therapy can provide an outlet for particular visual interests of children with ASD.

Impairment at the macro level of visual processing can be improved by practicing art that places emphasis on specific details of importance. Researchers think that making decisions of what details to include in a work of art (and what to leave out) can help autistic children identify visual details of importance. This strategy of art therapy has the intention of regulating autistic characteristics. An example exercise of this concept is a still-life drawing activity where the child focuses on a subject matter to render, while making decisions on what aspects to include in the background of their work. Although sensory intake is not a conscious decision that children with ASD make, creating art that mimics making choices of what visual aspects to place importance upon is thought by researchers to benefit children with ASD’s ability to do so. However, receiving visual stimulation is not that simple, and is not inherently bad or needing correction. In addition, experimenting with different focal points, foreground and background, and levels of detail is a part of the exploration of artmaking.

Instead of seeking to control or regulate responses to visual stimulation, allowing visual stimulation to be explored in the art making process can serve as an outlet to work with existing fixations, and gain pleasure and enjoyment from visual experimentation. This ideology is not for the purpose of eliminating fixations or regulating how one receives visual stimulation, but more as a means of self lead exploration of visual stimulants. Recall Esther Brokaw, while discussing Nude, oil, 20 x 30 inches, and Westley Cedeno, while talking about his piece “Untitled”, 5 x 5 inches, in regards to receiving visual stimulation as enjoyment. Esther Brokaw expressed a desire to explore line, color, and shadows of the human body, stating that “I was inspired by this body position; I liked the lines. I wanted to play with colors in the shadows of the body in an impressionistic, even pointillism style. Not having a model, I used myself and a camera with a timer. This was my third oil painting” (Mullin et al ., 2014, p. 131). Westley Cedeno explains that “the vibrancy of colors, hues, and the representation of different textures”, as well as the aspect of visual and tactile experimentation is what inspires them to create art (Mullin et al ., 2014, p. 137).

These are two examples of autistic individuals exploring visual stimulation on their own terms, gaining joy, pleasure, and happiness from the act of creation. Through listening to the experiences of autistic individuals, we can assume the authentic benefit of visual stimulation during art therapy is personal fulfillment. If particular visual stimulation brings the individual in art therapy positive feelings, it should be further explored. For example, if an individual finds joy in watching the visual textures unfold

while drawing with charcoal, the individual should be guided to push the medium of charcoal to its fullest potential, scaffolded by the art therapist.

Tactile

Children with ASD can have a hyper or hypo sensitivity to touch. For example, art therapist and researcher H. Durrani claims that “a child with tactile hypersensitivity might feel extreme pain at the slightest touch, whereas the hyposensitive child might seek extreme tactile stimulation” for fulfillment satisfaction (H. Durrani, 2019). The experience of seeking tactile stimulation is explained by Connor Smith, age 10 stating that “I find it a lot harder to concentrate without something to fiddle with. The things I like to fiddle with are elastic bands, squidgies, and pencils and pens” (Chilvers, R., & Chowdhury, U., 2007, p. 23). The opposite, painful experience of tactile stimulation is explained by Julia Bascom as “textures that hurt worse than my broken wrists…” (2012, p. 177). The variation of experiences of tactile stimulation needs to be acknowledged and taken into account when determining material usage.

Research suggests that during *art therapy*, careful material selection can be used to serve the individual needs of autistic children. H. Durrani suggests that “a large variety of media in a wide spectrum of colors and textures may be used as a means of sensory regulation for the tactilely hypersensitive or hyposensitive child” (P. 103, 2019). Research found that a healing aspect of the tactile component of art therapy involves increased or decreased amount of arousal and tension through providing physical stimulation (Elbrecht, C.,2012). Energy can be initiated through kinesthetic action and

allows the discharge of muscular tension. Art therapy can serve as an outlet for tactile-seeking stimulation through the exploration of a wide range of materials. For example, materials like clay are very touch-stimulating, while materials like a clean mechanical pencil and paper are less tactically stimulating. Art therapy can incorporate different levels of texture and physical involvement, which should be guided by the likes and dislikes of the individual undergoing the therapy.

However, art therapy strictly follows the pathology paradigm and medical model by suggesting that sensitivities of touch can be slowly decreased through the introduction of materials at a gradual pace. This suggests that the experience of touch of autistic individuals is “wrong”. Instead of showing individuals art materials that can enhance tactile experiences and truly fulfill the desires of children with ASD, art therapy is attempting to correct and regulate tactile experiences and normalize them, alongside ABA ideology. Recall Kay Aitch, while commenting on her piece, “Lost in Thought” in relation to the fifth point of listening, to hear thoughts of autistic individuals about how they describe their art for no other purpose than the act of creation. Aitch states that “everything around me inspires me to create art. What inspires me about creating art is the process of making marks, the feel of things, the seeing shapes and patterns in things” (Mullin et al ., 2014, p. 33). The tactile experience during the art making process should be led by the individual who is involved in the art therapy and their preferences, contrasted to attempting to regulate how individuals with ASD experience touch.

Auditory/Olfactory

Auditory processing of autistic people can fluctuate between extremes of an individual being able to tune out sounds completely, or having the ability to accept several sounds at once. For example, “the noise of fluorescent lights, the kneading of clay, or voices of individuals in the hallway may cause distraction or a withdrawal,” and can provoke behavioral outbursts (Alter-Muri, 2019). April Herren describes their auditory experience as hearing in slow motion (2012). She states “my ears don’t hear like your ears. You hear in different loudness, I hear just one loudness. You hear sounds with real tones, I hear things very flat. You can differentiate between different sounds, I hear one loud sound ” (Herren, A., 2012, p. 139). However, researchers found that art therapy can *benefit* children with ASD by introducing positive responses to sounds and smells alongside the art making process. It is thought that the *skill* of positive responses to sounds and smells introduced during art therapy can be later applied and carried over to other situations of stimulation overload found in everyday life. This is in alignment with ABA, as the response to auditory stimulation is taught to become positive, as well as the pathology paradigm or the need to correct or regulate differences.

Researchers also have found that children with ASD who have an auditory hypersensitivity may have negative emotional reactions to sounds (J. Lucker, and A. Doman, 2015). Negative reactions to sound may result in a degree of fight or flight responses. Fight or flight responses can include running away, hiding, or avoiding, as well as striking out or physically lashing. These responses are an “...automatic behavior controlled largely by limbic system reactions to stimuli” (J. Lucker, and A. Doman, 2015

P. 4). Following ABA, researchers claim that *treatment* for hypersensitivity to sound is recommended to focus on altering the negative emotional reactions (fight or flight) to a neutral or positive response. In art therapy positive responses to sounds are increased through behavioral conditioning. Learning techniques to relax the body, listening to calming music, desensitization training, and behavioral reconditioning all encourage positive responses to sound when incorporated in art therapy with children with ASD, according to research.

Nevertheless, instead of learning how autistic individuals hear and receive sound, and learning how to work with their perceptions, art therapy is still trying to correct responses. April Herren states that they "listen in groups of sound" (Herren, A., 2012, p. 139). Autistic individuals have such strong reactions to sound because they interpret sounds differently. April Herren explains that "…I hurt when there is too much noise" (Herren, A., 2012, p. 139). This is why noise canceling headphones are commonly used with individuals with ASD. In addition, April Herren relates how they hear in relation to how they think, stating that "my hearing is just kind of like my mind; a jumbled up mess of sound, kind of like when you hear the telephone ring. Other people kind of ignore the sound, but I can't. It bounces back and forth in my head all day" (Herren, A., 2012, p. 139). Herren compares how they hear sounds to hearing the phone ring, a juice maker, the washing machine, and the doorbell all at the same time (2012). Art therapy, and the world in general, should become more sensitive, understanding, and cautious of how noises affect those with ASD. Instead of using ABA

techniques to teach positive response to painful noises, we should be altering the noises that we put off, making environments welcoming to all.

Along with sound sensitivity, children with ASD have *difficulties* with olfactory adaptation. Olfactory adaptation is a process that allows one to adjust to changes in smell within their environment. The process of olfactory adaptation is described as "aberrant" in autism spectrum disorders and is controlled by the limbic system in the brain (Kumazaki, H. et al. 2019). Similarly to sounds, the lack of olfactory adaptation can result in a fight or flight response. Repeated or prolonged exposure to an odorant typically leads to reduced intensity, very much like classical conditioning. Art therapy exposes children with ASD to unique smells that are new to them, such as smells from clay, paint, or markers. Art therapists claim that learning positive responses to olfactory stimulation in the controlled setting of art therapy sessions provide skills that can be extended to everyday situations. Similarly to sound, the way that smell sensitivities are thought to be exposed, and bettered with positive responses is also in alignment with ABA. However, this is just not the reality of those with ASD. Like sound, we can assume that smell is experienced much differently and more intensely than those who are neurotypical.

Conditioning and learned behaviors that are a part of ABA embedded within art therapy teach autistic individuals to suppress the person that they are, and comply with societal norms. Recall Alyssa Zisk while discussing hiding from their diagnosis in their poem titled "I Hid", relating to the listening points of differences and similarities and receiving diagnosis (Zisk, A., 2012). Zisk talks about being able to pass for simply being

“weird”, and not wanting the label of autistic because it would give other people too much power, stating that “I knew that the autistic needed to be made normal in ways that merely weird could escape” (Zisk, A., 2012, p. 190). Zisk is referencing being made “normal” through the use of therapy, by reducing *symptoms* of autism that are a part of the person they are. Zisk explains “I knew they’ll try to break the person I am in order to fix the person I never was” (Zisk, A., 2012, p. 191). In this example, Zisk acknowledges that hiding their differences would halt the diagnosis of ASD. Zisk did not want the diagnosis of ASD because they did not want to be forced to change their behavior.

According to researchers, improved sensory regulation of children with ASD is a significant *benefit* of art therapy because issues receiving, processing, and responding to stimuli can be the underlying cause of other *symptoms* associated with ASD. Researchers such as H. Durrani and Alter-Muri claim that an inability to regulate one’s senses will produce negative responses to stimuli. Negative responses to stimuli result in dysfunctional behavioral expressions or outbursts, and a lack of communication, concentration, and cooperation. Negative emotional responses that stimuli may produce include anxiety or fear (H. Durrani, 2019). Sensitivities impact the ability of the brain to receive and process information. As a result, attention and focus are distracted when children with ASD are experiencing sensory overload. For example, researchers claim that one *symptom* of sensory overload of individuals with ASD is shutting out communication in order to regulate their over or under stimulated senses. By improving sensory regulation during art therapy, researchers believe that children with ASD can

manage behavioral expressions or outbursts, improve concentration, and increase verbal and nonverbal communication.

However, by regulating reactions to sensory intake of children and individuals with ASD, the internal problems are still present. **Teaching replacement reactions to stimulation still leaves those with ASD feeling discomfort and pain, and even less like the person that they are by learning that their behaviors are unacceptable.** Individuals with ASD are learning to suppress their reactions, behaviors, and emotions, which leads to internalization as well as physical and emotional traumas. Acknowledge sensory regulation and the regulation of responses to sensory intake as behavior modification that is associated with ABA therapies, and therefore the medical model of disability and the pathology paradigm. Sensory regulation is one of the many ways that autistic characteristics are regulated and minimized.

Behavioral Expressions

Regarding behavioral expressions of those with ASD, recall that "rather than being a categorically separate condition removed from 'normal' experience, **autism is at the extreme of a continuum of behaviours seen in us all"** (Chilvers & Chowdhury, 2007, p. 30). Behavioral expressions of children with ASD can include repetitive movements and fixations of particular objects or subjects. Art therapist, Alter-Muri, describes *challenging behaviors* of children with ASD as "comforting actions that modify overwhelming situations" (2017). J. Bascom, autistic author, explains that "we wave and twist our hands in front of our faces or slap them against our chests. Our hands

punctuate our moods and the music against the wall. Our knees don't bend as we walk on our toes, our fingers pick at cuticles or scratch patterns against our forearms and cheeks, and we'd rather watch spinning pinwheels than drown in another person's eyes" (2012, p. 202). These actions are considered behavioral expressions by researchers, but are considered as "stimming" to the autistic community. Stimming behaviors are actions that bring comfort. For example, A. F. Vivian states that "movement consumed me" (2012). From that, we can assume that movement is a satisfying and comforting stimming behavior of A. F. Vivian.

According to researchers, unlike neuroypically developing children that may develop challenging behaviors for the purposes of seeking attention, specific objects, or activities, children with ASD develop challenging behaviors that are neurologically driven and out of their control (Coplan, J., 2012). "Cognitive rigidity" is the neurological inability to accept, or be flexible to change. Change and disruptions of routines can cause challenging behavior in children with ASD, and trigger or elevate levels of anxiety. ABA and the pathology paradigm are both implying that "habits that mark someone as a person with an intellectual disability or autism, such as flapping hands, are inherently bad and people who do them should be trained not to" (Vivian, A. F., 2012, p. 250). Still, art therapy continues to attempt to regulate and minimize autistic characteristics of children and individuals with ASD.

Through regulating behavioral expressions, a message is sent to autistic individuals that "the way that you move is fundamentally wrong…" (Bascom, J., 2012, p. 203). Children with ASD are being taught to keep still and refrain from doing behaviors

that naturally help regulate themselves. While interning at a school, A. F. Vivian witnessed a teacher telling a boy with ASD that what he was doing with his hands looked “silly” (Vivian, A. F., 2012). His tension was channeled into something harmless, such as stimming behaviors, bringing comfort to the boy. His discomfort was viewed as an inconvenience. J. Bascom explains that “our joy is our own, and we communicate it differently, perhaps holding onto it privately, or pouring it out into another person. But soon we learn...that our joy should be our shame, our movements not our own, and so we withdraw” (Bascom, J., 2012, p. 202). The behavior of autistic individuals is constantly taught as incorrect.

However, art therapists suggest one way that art therapy can have positive *benefits* on the behavior of children with ASD is through harnessing existing repetitive behaviors. Doing so works with present fixations of particular objects or subjects, and increases flexibility and openness to try new or different things. Existing repetitive behaviors of children with ASD, such as flapping arms, twirling in circles, tapping, or rocking back and forth-- stimming behaviors, can be incorporated in the art making process. Projects that involve repetitive movements in the process of making art are recommended during art therapy for children with ASD (Alter-Muri, 2017). Full body movements, such as flapping arms or twirling in circles can become a part of the process of drawing, painting, or working with clay. Instead of suppressing, elminiating, or regulating behavioral expressions of those with ASD, this approach is one way that art therapy can work with aspects of autism. Rhythmic movements are an inherent part of working with clay specifically (Elbrecht, C., 2012). For example, in a case study of a

six year old boy with ASD, extreme sensory seeking behavior was present that prompted heavy tactile input (Durrani, H., 2019). He would roll balls of clay in his fingers to help regulate anxiety. This would allow him to transition to other activities during art therapy sessions.

In another example of art therapy and repetitive behaviors, a young autistic boy would repeatedly draw the number nine (Alter-Muri, 2017). In this case, when given any instrument to write or draw with the boy would insist on drawing the number nine over and over again. The paraprofessional staff would not allow him to keep talking about or drawing the number nine, or numbers at all. Alter-Muri developed trust with the child and joined the student in his world. Children who created the same image repeatedly can be encouraged to progress beyond their fixation. Alter-Muri introduced the boy to the artist Robert Indiana, who painted numbers and words, but particularly the number five. The boy discovered that someone painted numbers as a form of art. Alter Muri explains that “he started to create numbers on the canvas and embellish the background of the painting. He was able to move from creating numbers to focus on the design in the background of the image. Eventually he became involved in the process of painting and began to devote attention to the creation of an art piece” (2017). Existing fixations of children with ASD can be used as entry points for art making and the further development and growth of the child.

Finally, recall the physicality of repetitions in creating art seen in Marilyn Cosho’s piece, “String Fairy”, mixed media, 12 x 16 inches, 2009 (Mullin et al., 2014, p. 51). Cosho states that “the repetitive movement in creating art is calming. My layout and

design often reflect the autistic mind— being drawn to detail and order. Creating order counteracts feeling fragmented" (Mullin et al., 2014, p. 51). This is an example of an autistic individual harnessing their need for repetitive movements and behaviors to create art. This reflects a broader approach of highlighting, accepting, and praising existing stimming behaviors by using them to create works of art.

Social Skills/Communication

An agreed *symptom* of ASD is a lack of communication and social skills amongst researchers. Children with ASD may appear unresponsive, refrain from eye contact, and avoid social settings or interactions. Researchers have found that the cause of non-normative social responses lie in difficulties with processing language. Language and verbal communication are forms of sounds that stimulate the senses. Children with ASD may be experiencing sensory overload during social interactions that distract them from the interaction itself. Researchers also claim that children with ASD have difficulty understanding how other people process and communicate in social interactions, as they feel emotions and process information differently than neuro-typically developing individuals. Art therapy with children with ASD can be used as a tool to foster relationships and promote communicative skills.

Rachel Marks while discussing their piece, "Metaphor(ical) Maze", collage and computer graphics, 16½ X 23½ inches, 2008, states "in this piece I have tried to use neurotypical ways of talking about life— as a maze or a game— to highlight the hurdles such everyday phraseology presents when living with autism" (Mullin et al., 2014, p. 40).

Marks continues by stating “however, the “Metaphor(ical) Maze” is never the only hurdle to surmount, moods, emotions, and sensory processing issues appear to conspire in an attempt to impede our progress” (Mullin et al., 2014, p. 40). This piece is a visual representation of a metaphorical maze that autistic individuals are forced to navigate.

In relation to the “Metaphor(ical) Maze” that autistic individuals must navigate due to social constructs, recall Louise Parker's statement that “it all stems from aspie’s inability to pick up social cues and convention, and therefore it can feel like the other kids are mind-readers in comparison to you, and believe me, they take advantage the best they can. Doing things that they know will confuse you, or things they know you will have no scripted response to” (Chilvers, R., & Chowdhury, U., 2007, p. 35). The reality of the “Metaphor(ical) Maze” is made visible. It implies that “...people with disabilities should always try to communicate in a way that is comfortable for people without disabilities, even if it makes (a) person with disabilities uncomfortable” (Vivian, A. F., 2012, p.. 250). Art, as well as behaviors, are a form of communication.

Researchers claim that building a relationship with the art therapist improves social and communicative skills of children with ASD. An example of increasing socialization through relationship building with the art therapist is seen in a case study of a twelve year old boy named Tom (Durrani, H., 2014). In this case study, it was hypothesized that “the presence of chronic sensory withdrawal may have impaired Tom’s attachment to his primary caregiver, resulting in insecure attachment and subsequent social engagement difficulties” (Durrani, H., 2014). Researchers found that due to sensory withdrawal, Tom’s early relationships with caregivers were negatively

influenced and healthy attachments were not formed. This resulted in difficulties with communication and socialization later in life. Art therapy facilitated sensory modulation and self-regulation with the case study, which resulted in lower levels of anxiety. Research found this allowed him to form attachments to his art therapist and improved his social engagement and communication overall.

In Louise Parker's poem, "The wrong side of the two-way mirror", age 12, she discusses dynamics of relationships with peers. Relationships can be viewed as a subcategory of differences and similarities viewed from an external point intertwined with the outside world. There is a misconception involving "...the often propagated view that all autistic children treat people like objects and do not form close relationships is not the case..." (Chilvers, R., & Chowdhury, U., 2007, p. 57). If anything, using Louise's passage as a reference, she is the one being treated as an object while being rejected and manipulated by other children. Due to neurotypical individuals misunderstanding autistic people, navigating social relationships may be difficult. Chilvers and Chowdhury assert a call to action for families and existing support of autistic children. They explain that "family can play an essential role in encouraging autistic children to form relationships without losing motivation or confidence if their first efforts are not successful, and in helping those around them to understand how mutually rewarding these relationships can be" (Chilvers, R., & Chowdhury, U., 2007, p. 68). Encouragement and increasing understanding of children with ASD is essential for fostering peer relationships.

Researchers claim that art therapy can also be used to teach emotional responses as a part of understanding appropriate communicative responses. This *benefit* of art therapy has deep roots in ABA. For example, in a study by B. Malhotra, puppetry was used in art therapy to promote emotional empathy with a nine year old girl with ASD (2019). Malhotra suggests that using puppets with a child with ASD promotes empathetic responding and self awareness, as well as communication. Interactions with puppets helped the girl develop solutions for coping with difficult emotions for the puppet, which served as an extension of herself. Researchers found the case study was able to become more comfortable with communicating difficult emotions through the use of the puppet. Something that I would change to this is instead of using premade puppets as conversational tools, I would have the child create the puppets and a storyline. This would heighten creativity and through choice the child could make a story using the puppets while given prompts, such as make a story using the puppets about something that you really enjoy doing. This would be more personal and meaningful to the child and you would learn a lot about them, thus building a relationship.

In addition, researchers claim that conducting art therapy in groups is a method of increasing social interaction and communication amongst peers. Collaborative group projects, like murals, assist in the practice of social skills, communication, and create a sense of community (Alter-Muri, 2017). Research suggests that many children with ASD have difficulties connecting and interacting with their peers. In a study by M. D'Amico and C. Lalonde, art therapy was used in a group setting with intentions of helping children with ASD formulate, develop, and rehearse social interactions. This study

placed emphasis on the children experiencing positive social interactions with their peers. The study found that art therapy improved the ability of children with ASD to engage with others and assert their presence in social settings. In addition, attention, engagement, and the ability to cooperate, communicate, solve problems, and reflect was improved, while hyperactivity was reduced. To me, this sounds like a play. Children participating in plays and other theater work is a great way of building relationships and community, and also can be a way of teaching an overall lesson through the plot of the play.

Returning to the concept of art as a form of communication, recall ceramic artist Blake Zucker. His ceramic art led them to a new form of expression and communication, while encouraging socialization during participation in art shows and exhibitions. This is an example of socialization and communication being increased through artmaking. However, it is important to emphasize how much passion the artist has for their work, and showing their work in exhibitions. It brings them joy making art on their own terms. This is how communication and socialization should be increased while creating and showcasing artwork, with the consideration of the individual's thoughts and feelings as being the most important aspect.

In addition, J. Bascom argues that behavior is communication. In regard to flapping or other forms of stimming, Bascom expresses how "if you work on eliminating 'autistic *symptoms*' and 'self stimulatory behaviors', you take away our voice…" (Bascom, J., 2012, p. 182). By working to eliminate autistic *symptoms* and self stimulatory behaviors, a message is being sent that behaviors of autistic individuals are

unacceptable and need to be corrected. This is associated with ABA and the medical model/pathology paradigm. Bascom states that “my hands are one of the few places on my body that I usually recognize as my own, can feel, and can occasionally control” (Bascom, J., 2012, p. 179). Behavioral expressions, or stimming, are a significant method of communication. Bascom continues by stating that “I need to silence my most reliable way of gathering, processing, and expressing information, I need to put more effort into controlling and deadening and reducing and removing myself second-by-second than you could ever even conceive, I need to have quiet hands...” (Bascom, J., 2012, p. 181). Behavior is a valid form of communication and it should not be suppressed or corrected, but instead listened to, observed, and understood.

Connecting Inner and Outer Worlds

Research has found that using art to connect the inner and outer worlds of children with ASD can increase levels of engagement and willingness to participate in an unfamiliar or unusual situation. Research suggests that the inner world of a child with ASD can be very separate and disconnected from their outer world, the outer environment where others perceive them. Alter-Muri declares that “artmaking increases emotional and oral communication with students’ inner and outer world (p. 25, 2017). Uniting the inner and outer worlds of children with ASD can increase communication and participation in social settings, as researchers believe that the child will begin to feel more a part of the world around them. However, David Barth, an individual with ASD, describes the connection of their inner and outer worlds during the art making process

as being in conversation with one another. There are interconnections and a relationship between the two.

Recall David Barth when discussing his piece, “Vogels” (“birds in Dutch), in colored pencil, 19 ¾ x 25 ½ inches, 2008. Barth explains that “my obsessions depend on what I come across and can’t get my mind off. By thinking about it constantly, I get restless. Drawing things that are related to my obsessions makes me quieter” (Mullin et al ., 2014, p. 64). This is an example of using art as a visual outlet for heightened interests. However, Barth explains that “sometimes, though, my drawings make the distance between me and the outside world bigger, because the objects of my fascination are not always socially accepted (vampires, war scenes, etc.)” (Mullin et al., 2014, p. 64). David Barth’s example demonstrates how the inner and outer worlds of those with ASD can be connected and in a conversation with one another during the art making process.

Emotional Affect

Research suggests that art therapy can aid identifying and processing emotions through the improvement of emotional regulation and facial expression recognition, as well as improve self-image and confidence. Emotional affect is a part of our inner world, compared to the previously discussed *benefits* of art therapy that are a part of the outer world. Significantly, “artmaking increases emotional and oral communication with students’ inner and outer world” (Alter-Muri, S. B., 2017, p. 25). The above *benefits* of art therapy, such as sensory regulation, improving behavioral expressions, and

increasing communication and social skills, involve how we react to our environment, or the outer world. Emotional affect involves how we process our emotions in our inner world. The following analyzes the internal benefits of art therapy with children with ASD claimed by research, while incorporating experiences and voices of autistic individuals.

Emotional Regulation

Emotional regulation is the process of identifying, processing, and reacting to emotions in an acceptable manner. According to researchers, emotional regulation can also be described as the "evaluation and appropriate modulation of emotional responses according to the social context or for achieving a goal" (Anghel, C. G., Kobylinska, L., Stancu, M., & Dobrescu, I., 2016). Emotional regulation puts emotions in context to form a response that would be socially accepted. This is a spontaneous process that is affected in early years by family relations and observational learning. Researchers claim that children with ASD have a lack of emotional regulation, as they have "frequently been described as having difficulties in all emotional aspects; deficiencies in understanding and expression of emotions, in decoding facial expressions, and appropriate management of emotions" (Anghel, C. G., Kobylinska, L., Stancu, M., & Dobrescu, I., 2016). Common negative emotions of children with ASD, such as anxiety, fear, stress, and depression, cause negative emotional responses. Anxiety or fear of situations or social contexts can cause a withdrawal from the surrounding world. This can trigger feelings of loneliness and isolation, which contribute to a lack of emotional reciprocity as well as depression (Alter-Muri, 2017). Depression is

connected to feelings of loneliness and isolation, and can occur in individuals with ASD due to the nature of their symptoms (Anghel, C. G., Kobylinska, L., Stancu, M., & Dobrescu, I., 2016).

Researchers claim that negative emotional reactions caused by increased levels of anxiety and anger can result in behavioral outbursts, such as tantrums or acts of aggression, due to difficulties interpreting social cues. C. Anghel, L. Kobylinska , M. Stancu, and I. Dobrescu proposed that “a deficiency in emotional regulation could explain the emotional and behavioral problems in ASD, as well as the impaired social functioning of these individuals” (2016). Researchers have found that a lack of emotional regulation in children with ASD can cause other emotional and behavioral issues associated with ASD.

However, while describing her piece, “A Portrait of the Artist”, autistic artist Emily Williams compares her artistic process to her relation to herself. While creating her piece, she explains how “sometimes I didn’t know myself. All I knew was that I wanted to draw them; somehow it was about autism (though don’t ask me how), and needed to be included” (Mullin et al., 2014). Williams continues stating, “that’s what my autism is, all of these random parts in my life, memories, likes, dislikes, emotions, everything thrown together into one brain. Sometime there’s an obvious reason, sometimes there’s not” (Mullin et al., 2014, p. 22). From this example we can assume that developing your own artistic practice can be connected to your emotions and aid processing them.

In another example of artmaking aiding emotional affect, recall Marilyn Cosho and her piece titled “All About Money”, mixed media, 16 x 20 inches, 2009. Cosho

reveals how “most of my collages begin with an intangible, overwhelming feeling that I then try to concretely represent” (Mullin at al., 2014, p. 37). She uses her emotions as motivation and inspiration to create. Cosho sees her collages as “...vast feelings caught in a visual second” (Mullin at al., 2014, p. 37). Her art is a visualization of her emotions. In addition, Cosho states that **“**my art falls into two categories; a necessity, which releases built-up emotions and a more playful pastime type” (Mullin at al., 2014, p. 51). This is an example of how artmaking can be used to regulate and process emotions during an enjoyable process.

Facial Expressions

Autistic individuals receive social cues that convey a person’s internal state, **differently than neurotypical individuals**. Facial expressions are significant social cues. Recall Louise Parker’s writing, “The wrong side of the two-way mirror,” age 12 (Chilvers, R., & Chowdhury, U., 2007, p. 35). Parker illustrates their experience of social cues and convention, which can be considered as facial expressions. She states that “it all stems from aspie’s inability to pick up social cues and convention, and therefore it can feel like the other kids are mind-readers in comparison to you, and believe me, they take advantage the best they can. Doing things that they know will confuse you, or things they know you will have no scripted response to” (Chilvers, R., & Chowdhury, U., 2007, p. 35). Cosho acknowledges that she experiences social cues differently than her peers, and they know that too and cruelly use it against her.

Recall J. W. Bridges while talking about his piece, “What AS Looks Like,” acrylic, 11 x 14, 2008 (Mullin at al., 2014, p. 32). Bridges hopes that this piece communicates to autistic individuals that they are not alone. Within the piece, Bridges describes how “the eyes are crossed out for the feeling of always being watched and the difficulty of making eye contact” (Mullin at al., 2014, p. 32). Eye contact is a social cue that is connected to facial expressions. Individuals refraining from eye contact impacts their perception of facial expressions.

Interestingly, researchers have found that in neurotypically developing children recognizing emotions in facial expressions is a spontaneous process that develops at a young age through family interactions, observational learning, modeling, and social referencing. However, “eye-tracking and electrophysiology studies show that from early childhood people with ASD experience a diminishing interest in faces and a lack of social motivation” (Anghel, C. et al., 2016). Avoiding eye contact can occur as early as six months old, and at fifteen months old “..children with ASD focus on the mouth region of the face, which negatively impacts facial expression recognition and causes a loss of social stimuli" (Anghel, C. et al., 2016). Therefore, due to a different processing of social interactions at an early age, children with ASD also have difficulties with the recognition of facial expressions. Research suggests this contributes to the refrain of socialization and children with ASD developing different ways of communicating.

Research has found that children with ASD benefit from art therapy by introducing, identifying, and reinforcing facial expressions, which can improve recognition of emotions and social motivation. For example, “Richard et al. (2015)

developed the “Build a Face” intervention to assist with facial emotional recognition that would reinforce identification of emotions through the use of three-dimensional materials” (Van Lith, T., Stallings, J. W., & Harris, C. E., 2017). This was a research study conducted with a control group of children with ASD and an experimental group of children with ASD. After the Build a Face intervention, improvement in facial emotional recognition was seen in the experimental group of children with ASD. This study suggests that through the use of art therapy children with ASD can improve their ability to identify facial expressions, which will have an overall impact on the quality of their reactions in social settings. However, the Build a Face intervention uses ABA therapy to condition facial expression recognition, sending the message that the way children with ASD perceive facial expressions is wrong and needs to be normalized.

Another research example claiming that children with ASD improve their ability to identify facial expressions through the use of art therapy is seen in an experiment conducted by M. D’Amico and C. Lalonde (2017). This research experiment used art therapy in a group setting with children with ASD “with intentions of helping them develop and rehearse social skills and experience positive social interactions” (D’Amico, M., & Lalonde, C., 2017). It is important to recognize that this experiment is in deep alignment with ABA and the pathology paradigm ideals of training desired behavior by correcting what is viewed as unacceptable behavior. The goal of this experiment was socially driven and the method used involved creating a collage of facial masks to depict different emotions, as well as the additional aid of a “personal emotion chart”. The masks and coinciding emotional charts were used to script and rehearse social

interactions within the group. This research experiment claims to confirm the improvement of facial expression recognition of children with ASD with the use of art therapy, and demonstrate how such improvement contributes to social and communicative skills in a controlled group setting. Similarly to the Build a Face intervent, this example also uses ABA therapy to condition facial expression recognition, communicating that the way children with ASD perceive facial expressions is wrong and needs to be made more neurotypical.

In addition, Arne Svenson who is an artist in residence at the Wesley Spectrum Program, took photographs of children with ASD with the intentions of improving their communication skills (Alter-Muri, 2017). This is another experiment attempting to force children with ASD to learn neurotypical facial expressions in order to communicate in a neurotypical way. Large portraits of the children were produced that displayed facial expressions that communicate emotions, as neurotypical individuals would perceive them. This encouraged the children to learn facial nuances and connect them to emotions, while also providing a feeling of inclusion by having the children be the subject. This example is also in alignment with the pathology paradigm and ABA, as the way that individuals with ASD use facial expressions to communicate and how they perceive facial expressions is disregarded, and an attempt is made to force learning of facial expression recognition. If I were to alter this photography project, I would have photographs taken of the children with ASD accompanied with their explanations of their emotions observed in the photographs (if verbal). This would hopefully help others understand how the autistic children communicate with their facial expressions.

Theory of Mind

Researchers claim that children with ASD have a different experience of the social-cognitive skills of **“**Theory of Mind”. According to research within the parlance of psychology, Theory of Mind “refers to the ability to determine the internal status of others”, which includes their thoughts, beliefs, motivations, and desires, with the purpose of predicting their behavior (Anghel, C. G. et al., 2016). Theory of mind also encompasses the ability to identify mental states of yourself and others, as well as understanding that others have different mental states and perspectives than yourself. It is significant that researchers believe that children with ASD have difficulties with theory of mind, as “studies have shown that from a very early age, children react depending on the emotions of others” (Anghel, C. G. et al., 2016). According to research, if children with ASD cannot determine the emotions of others, their reactions will not be accurate. Furthermore, “once a child understands that facial expression reveals something about the internal status of a person, this knowledge represents the pillar of ‘mind-reading’ development, which reflects in the ability to attribute a mental status to other people” (Anghel, C. G., Kobylinska, L., Stancu, M., & Dobrescu, I, 2016). Therefore, research suggests that children with ASD lack the ability to determine emotions and mental states of others, and this affects their reactions in social settings.

Conversely, people are not attempting to understand how an autistic individual thinks. Researchers are not allowing autistic people to have a mind. Recall Louise

Parker's poem, 'The wrong side of the two-way mirror', age 12. She describes her :" ...inability to pick up social cues and convention, and therefore it can feel like the other kids are mind-readers in comparison to you**,** and believe me, they take advantage the best they can. Doing things that they know will confuse you, or things they know you will have no scripted response to" (Chilvers, R., & Chowdhury, U., 2007, p. 35). Parker expresses that some of challenges in their life are rooted in their different understanding of social cues and conventions. She feels as if some children notice her challenges and use it to their advantage, as if they are mind readers compared to her.

Self Image

Regarding the inner world of the child with ASD and identifying their own emotions, art therapy promotes self image, confidence, and a feeling of acceptance, according to research. There is a correlation of increasing knowledge of the self and an increase in self-acceptance and self-confidence that takes place during art therapy. For example, in a clinical research study where art therapist clients were interviewed before and after sessions, it was found that "self-knowledge increased which facilitated self-expression and resulted in an increase of self-confidence" (Martin, N. 2009). An example of research claiming that art therapy improved self-confidence is seen in a study that involved group sessions of art therapy with children with ASD and the use of Lego blocks (Buchanan, V., & Kato, D., 2016). The children were prompted to complete tasks to complete using the Lego blocks, and assigned roles to assume.

Nonetheless, there is a discrepancy between the way that researchers discuss how art therapy improves self image and the way that individuals with ASD describe how art therapy improves their self image. Recall the third point of listening, to hear thoughts of autistic individuals about how they describe their internal discovered talents, identity, and confidence, displayed through their art and writings about it. Michael P. McManmon while describing his piece, Caught in Realism; watercolor ; 11 x 14 inches; 2011, discusses how art helped him gain confidence and identity through exploration of his talents (Mullin et al ., 2014, p. 90). He begins by explaining how when he was young he started to draw trees and would only use pen, ink, and pencil. He states: “I did not have the courage to break out of this and was afraid to make mistakes or try new things that I may not have been successful at” (Mullin et al ., 2014, p. 90).

McManmon was diagnosed with autism in his fifties and claims that it changed his life, expressing that “I realized that I did not have to try to be perfect anymore. With my art, I began to experiment with color and then painting. I decided that it did not matter if every work was perfect or complete” (Mullin et al ., 2014, p. 90). He continues by stating “the same relates to my life— I decided to be open to new ideas by default, instead of the opposite. I started to see things in a new perspective and I now see the beauty that I did not previously see. I decided that I can experience the world in any way that I want” (Mullin et al ., 2014, p. 90). McManmon is an example of an autistic artist gaining confidence and identity through exploring their artistic talents.

In contradiction, research suggests that in addition to difficulties identifying, processing, and reacting to emotions of others, that “autistic children face challenges

with recognizing and understanding their own emotions", which may trigger anger, aggression, or frustration (Durrani, H., 2019). Through expressing emotions and communication guided by the art therapist, art therapy can alleviate assumed confusion of emotions felt and teach children with ASD methods for recognizing and understanding internal emotions. In support, "ASD *symptoms* exacerbate everyday conflicts and make activities that help a child pinpoint and process their emotions very practical" (Martin, N., 2009). Research suggests art therapy allows emotions to be identified and represented through visual self expression, stating that "for children on the spectrum, therapeutic art projects provide the concrete, visual format that allows you to literally wrap your hands around a topic" (Martin, N., 2009). This is essentially visually representing emotions through a creative process.

In relation to visually representing emotions through artmaking, recall Emily L. Williams while discussing their piece, "A Portrait of the Artist", mixed media, 5 x 4 feet, who relates their artwork to finding identity through developing their artistic talents (Mullin et al ., 2014, p. 22). Williams explains that this piece is about "...how my brain works when it comes to art. Sometimes I didn't know myself. All I knew was that I wanted to draw them; somehow it was about autism (though don't ask me how), and needed to be included" (Mullin et al ., 2014, p. 22). The artist relates discovering identity to developing a piece. Williams continues by stating, "that's what my autism is: all of these random parts in my life, memories, likes, dislikes, emotions, everything thrown together into one brain. Sometime there's an obvious reason; sometimes there's not"

(Mullin et al ., 2014, p. 22). Williams is an example of an autistic artist developing their self image alongside their art.

Between Benefits and Materials

Children with ASD feel and process emotions differently than neuro-typically developing individuals. In addition to improving sensory regulation and processing communication, advocates of art therapy claim that it improves the communication and social skills of children with ASD by fostering relationships and normative responses in social interactions. Art therapy is also said to aid children with ASD in identifying and processing emotions through improving emotional regulation and self confidence. Researchers believe art therapy *treats* the *symptoms* of ASD through *managing* children's environments, and *regulating* how children with ASD respond to stimulation, as well as *identifying* negative responses and *replacing* them with neutral or positive responses. **Tragically, art therapy also serves as a way to control environments and stimuli that children with ASD receive, while prescribing positive reactions to replace negative ones.** ABA therapy conditions positive responses in specific situations, which can have a lasting effect on children with ASD. The stimulating qualities of art materials are used during art therapy, in order to replace negative responses to stimuli with positive ones and is in correlation with ABA. This regulation of environments and responses is linked to the pathology paradigm, the medical model, and ABA therapies.

Pathologizing Metaphors

At the foundation of the way researchers believe art therapy *benefits* children with ASD is ABA, the pathology paradigm, and the medical model. Again, ABA is the method of changing behavior with positive and negative reinforcements through learning desired behavior for socially motivated outcomes. The pathology paradigm claims that there is an acceptable way for the human mind to function, and if you deviate from the standard or normal criteria, something is wrong with you. It is the notion that you need to be cured. The medical model claims the need to be cured by a medical professional, and if you can't be cured then you are limited in social participation.

Consider Zoe Gross' writing, *Metaphor Stole my Autism: The Social Construction of Autism as Separable from Personhood, and its Effect on Policy, Funding, and Perception*, 2012. Gross claims that "when people do not understand how a condition works, they are more likely to build metaphors around it" (Gross, Z., 2012, p. 258). Some of the different types of metaphors constructed around autism are military, kidnapping, barrier, and most disturbingly, death. Military metaphors claim that people are battling their diagnosis. Gross elaborates, stating that "...autism is constructed as a militarized force besieging an otherwise-normal child" (Gross, Z., 2012, p. 260). Kidnapping metaphors suggest that autism is "taking" children. Barrier metaphors present "...autism as a physical obstacle which stands between an otherwise-normal child" (Gross, Z., 2012, p. 262).

Finally, the most disturbing metaphor of death, portrays autism as death, or worse than death. Gross explains that “it is common for parents to ‘mourn’ their living autistic children, but some parents take the metaphor further, expressing a desire to trade their child’s autism for a life-threatening illness” (Gross, Z., 2012, p. 264). These metaphors suggest that autism is separable from personhood, or curable. For example, “some parents and doctors, convinced that autism is separable from the personhood of autistics, will do terrible things to ‘get the autism out’ of their children or patients” (Gross, Z., 2012, p. 266). This includes risky and unproven therapies, including ABA. They fail to recognize autism as a part of the individual, accepting their traits and trying to learn about them. In support, “...the idea of autism as separable from autistic people has led to professionals and parent-advocates to disregard the priorities and perspectives of autistic people themselves” (Gross, Z., 2012, p. 268). Gross calls for funding that would foster the inclusion of autistic people themselves, emphasizing autism as another aspect of personhood (Gross, Z., 2012).

Engaging with the medical model, the following section will analyze research published in clinical journals, focusing on research centered around art therapy and material usage. The experiences of autistic people are seen very differently from those of researchers and therapists. Autistic people are having experiences that researchers are not accounting for. The following will toggle between clinical research that assumes the medical model, emphasizing the reduction of *symptoms* associated with ASD, on the one hand, and experiences and voices of individuals with ASD in relation to therapy, art therapy, and material usage, on the other. Most clinical research, as well as most

accounts by autistic artists, are centered around painting and drawing. We can compare clinical research to experiences of individuals with ASD, in order to analyze what therapy practices are in alignment with the opinions and experiences of individuals with ASD. Doing so will place the voices of autistic individuals in conversation with research surrounding art therapy.

Material Preference

Research suggests that it is important to identify preferred materials of children with ASD in art therapy because this information can be used by the art therapist to design sessions for the child by targeting specific goals and desired outcomes. This abides by the medical model and pathology paradigm of correcting *symptoms* and making individuals *less autistic*. In a case study by Furniss, a young boy with ASD had a strong preference for drawing with clean, accurate, and controllable mechanical pencils. The boy also repeatedly drew the same imagery with “little exploration” of subject matter. Furniss verbally prompted him to use charcoal instead of mechanical pencils and he drew a character that he had never drawn before. In this example, the use of a new material resulted in drawing new subject matter. Pushing the exploration of new materials increased the boy’s flexibility and willingness to try new things, which therapists claim are skills that can be applied in other life situations that involve change. Having a preferred material encouraged him to create art and formed an attachment to the specific material. The boy also practiced completing verbal instructions given by Furniss. This is an example using preferred art materials of the child to target specific

goals that are determined by the art therapist, such as flexibility to change. This example aligns with the pathology paradigm, as seen in the stated goal of minimizing autistic characteristics of the child.

However, knowing preferred art materials of autistic individuals can provide them the opportunity to further explore the material. This could lead to participating in art shows and exhibitions, which will naturally increase their socialization as well as their ability to communicate through their art, as observed by Blake Zucker, a clay potter with ASD. Blake Zucker discusses his feelings when participating in exhibitions: “When I exhibit out of town I greatly enjoy traveling and am inspired by the newness of this experience. I get a jazzed-up vibrational inner feel and creative light turned on in my soul. Knowing there is a showing in a larger city like New York or Hollywood helps my creative flow, entering my studio I have a burst of energy” (Zucker, B., 2020, Feb. 16). Commenting on more local shows, Zucker states that: “I look forward to participating in shows that are local and my works are a perfect fit. My friends and family are able to attend,I like the positive vibe” (Zucker, B., 2020, Feb. 16). Discovering an artist's preferred material can open doors to their craft, enhance the artist’s way of communicating through their work, and like any artist, potential for inclusion in art events that are not just for autistic people. It is of utmost importance to listen to autistic individuals in order to discover their preferred medium for creating art.

Materials Review

Researchers claim that the qualities of art materials provide *benefits* to children with ASD during art therapy because of how they can be used to *treat* known *symptoms* that people with ASD have. *Symptoms* of ASD that qualities of art materials are said to *benefit* are sensory regulation, communication, socialization skills, and behavioral expressions (Stewart, C. et al., 2016; H. Durrani, 2019; Alter-Muri, 2019; J. Lucker, & A. Doman, 2015, p. 4; Martin, N., 2009). Qualities of art materials include sensory aspects such as textures, visual stimulation, scents, and sounds. Dimensionality and process are other qualities of art materials that can be used to target motor skill development and hand-eye coordination.

Artmaking processes can be categorized as drawing, painting, and sculpting. They can be further classified as wet or dry. Being wet or dry is what distinguishes drawing media and painting media. Three-dimensional materials can be either wet or dry. Clay is an example of a wet three-dimensional material. Drawing, painting, and three-dimensional art materials all possess different qualities that provide *benefits* when applied to art therapy with autistic children. The following is loosely organized from dry to wet media, progressing from drawing, digital art, photography, paint, clay to fiber. Research surrounding art therapy will be accompanied by the experiences of autistic individuals for each material.

Drawing and Digital Art

In a small scale survey that I conducted, titled *Art by Individuals with Autism*, autistic artists were asked about their favorite media to work with, in open ended questions (2020). One respondent expressed their passion for using digital art to render character designs. Digital characters combine fantasy and creativity and usually embody human-like qualities, including social aspects. Another respondent explained how they enjoyed drawing spaces before experiencing them, such as planning their garden arrangement, or planning out rooms before rearranging furniture. For example, they would sketch how they want to rearrange their furniture before physically moving it. Spatial planning relates to how people behave and communicate. The same respondent expressed appreciation for digital art in terms of the possibilities of what can be done with it. They state digital art "...allows me to work in a way that traditional tools do not, and it's a relatively pleasant sensory experience comparatively" (*Art by Individuals with Autism*, 2020).

These two survey responses are related to a research experiment involving autistic artists. Previous research has claimed that children with ASD have a deficit in drawing imaginative content, however clinical researchers, Eycke and Müller (2015), assert that this deficit is specific to social stimuli. In this research experiment autistic artists and neuro-typically developing children were to draw imaginary houses and

people. Both groups of children were given templates of a house and the human figure to then draw on and creatively customize. After the template phase the children were instructed to free draw a house and the figure. The level of creativity and imagination observed in the drawings of houses did not differ between the group of children with ASD and the group of neuro-typically developing children, while the drawings of people were “significantly less imaginative” (Eycke and Müller, 2015). They concluded that “the impairment in imagination among autistic children may be specific to social stimuli” (2015). Autistic children do not have a deficit in imagination, however they may be made uncomfortable by social stimulation.

The survey responses I received indirectly challenge Eycke and Muller’s assertion that autistic individuals have an impairment in imagination that is specific to social stimuli. One of the two responses discussed above is someone explaining how they use digital art to create characters that embody some social aspect. This is related to autistic artists rendering people in the research experiment by Eycke and Muller (2015). Developing characters using digital art is a combination of using imagination and creativity while creating social creatures. The second respondent is explaining how they design spaces, using their imagination and creativity to develop a space where social creatures may exist. This is related to autistic children rendering houses in the research experiment. Both responses in the survey, the digital character design and the design of spaces, involve aspects of social stimuli and express the imagination of autistic artists.

Clinical art therapist Nicole Martin found that drawing can improve developmental growth, such as fine motor dexterity, visual sequencing, visual memory, facial processing (recognizing emotions and facial expressions), and self awareness for autistic children (2009). Drawing media combine physical elements and mental abilities that form a connection from the body to the mind. Clinical researchers claim that physical elements of drawing target motor skills and dexterity through the gripping of a utensil. Abstract mark making or child-like squiggles are seen as beneficial from a medical viewpoint, while representational drawing is said to increase visualizing abilities in addition to the physical *benefits* of drawing.

Researchers suggest that as autistic children are introduced to *art therapy* through drawing, relationships formed with the art therapist build trust. Building trust with the *art therapist* allows flexibility with other art materials as children with ASD become more comfortable, open, and accepting. New art materials will provide new *benefits* due to the different qualities of the materials. Accommodating the individual needs of children with ASD can be done through choice of materials. Overstimulation can be *controlled* by the *art therapist* allowing a slow increase of exposure, while still introducing a variety of different materials. Finding a preferred material of choice that will keep the child's interest, focus, and enjoyment is the *goal* of exposing children to a variety of media from the art therapist's perception. However, exploring a variety of media will provide the individual artistic freedom.

In my survey, autistic individuals who make art were asked about their favorite mediums to work with in open ended questions. One respondent expressed their

passion for using digital art to render character designs. According to researchers, “particular television programmes or characters often become a favourite special interest for autistic children” (Chilvers, R., & Chowdhury, U., 2007, p. 77). Recall, the fourth point of listening to hear thoughts of autistic individuals about how they describe their actions, behaviors, and interests. This is connected to digital art, and particularly to film as a special interest. Interests in films and characters can lead to creating art about them, or fan art.

For example, ‘Art Therapy and Technology: Islands of Brilliance’ is a program that involves collaboration with graphic designers, art therapists, and children with ASD (Garner, R. L., 2017). Garner explains “this program was inspired by a family that had a child with Autism and began to notice that he exhibited a sense of comfort while interacting with technology, specifically YouTube” (2017, p. 17). The child created their own YouTube videos and would interact within the social network. Researchers found that the boy “...was not only initiating interaction, but was also utilizing the bridge of technology in order to form genuine connections and share his own creativity and thoughts” (Garner, R. L., 2017, p. 17). In addition to YouTube, the boy was introduced to creative digital art programs, such as Adobe Illustrator, and design software. Responses to the survey, *Art by Individuals with Autism*, expressed appreciation of digital art. One response elaborates stating that digital art “...allows me to work in a way that traditional tools do not, and it’s a relatively pleasant sensory experience comparatively”*Art by Individuals with Autism,* 2020). Digital art can be more accessible and more comfortable for autistic people.

Photography

In an example of a clinical challenge with communication, researcher and art therapist, Alter-Muri, describes one case of a fourteen year old boy with ASD. He would only scribble on paper, but was interested in photography. The boy would hold photographs in his hand and stare at them while saying repetitive words that described what he saw in the photos. After giving the boy a camera to take pictures of his surroundings, or outer world, the boy assembled a photo album with titles and descriptions. Alter-Muri states that “he carried this book around, which elicited positive attention and communication with others. This was his solution to keeping memories of people and things that were important in his world...” (p. 30). The boy was able to document experiences that took place in his outer world, and process and record descriptions of them. The researcher found that sharing the album with others promoted positive communication and participation in social interactions.

Photography has been introduced to children with ASD by Arne Svenson, an artist in the Wesley Spectrum Program (Alter-Muri, 2017). Svenson took photos of children with ASD, in order to improve their social skills and levels of communication. These portraits engaged the children, making them feel valued by having their portrait taken and displayed, while providing examples of facial expressions. Researchers believe that incorporating photography can *benefit* children with ASD by connecting them to, and helping them understand, the outer world that they live in.

Nicky Fry, an autistic photographer, describes how photographing people is another form of communication. Fry states, “I have a fascination with photographing people which is weird for me because communicating with people is never an easy thing for me...I think it’s because I find most people interesting, confusing and intriguing that I want to photograph them and capture their feelings and emotions because I find them hard to deal with” (Godding, 2016). Fry talks about how they use photography as a way of learning how other people express emotions. In addition, Fry explains that “I also love photography because when I have to go to social events and there is no way out of it I can hide behind my camera and this acts as a barrier for me so I don’t have to interact with people” (Godding, 2016). Photography is another form of communication and a way to learn how other people communicate with their facial expressions.

Painting

Compared to dry drawing materials, paint provides fluid qualities that are accompanied by new visual significance, smells, and sounds. Auditory and olfactory senses are engaged by the sounds and smells that paint provides. The oozing of paint and the chemical odor that it produces may seem insignificant to the neuro-typical person; however, clinical art therapists suggest that experiencing these stimulants can help autistic children by preparing them to receive stimulation in other situations (Alter-Muri, 2017). This idea of using paint as a way of preparing children to receive stimuli in other situations reflects the ABA therapy model. Tactile aspects of making art that aid motor skills, such as gripping a utensil, are accompanied with new aspects of

this material, such as dipping the brush, utensil, or body into the paint and then smearing it onto a surface.

Paint requires more attention to specific adaptations. This can include using different hand grips, utensils of application, brush sizes, different types of paint, and context of the art making process. An example of accommodating to the needs of autistic individuals is seen in a case study of a fourteen year old boy with ASD by art therapist and researcher, H. Durrani (2019). The boy was clinically described as having low motivation and lacking participation. Durrani sprayed shaving foam in a large circle on a mirror that was on the wall and modeled the activity by spreading the foam with her fingers. After watching Durrani, the boy began to participate in spreading the shaving foam. Paint was then added to the foam which led to finger painting. This is an example of an art therapist catering to the needs of the individual and modeling the activity in order to gain participation. Durrani adapted the context of the art making process to increase participation and engagement with the boy.

In another case example presented by H. Durrani paint is discovered as a preferred material. In this case study, a twelve year old boy named Tom was *diagnosed* with a need to focus on improving sensory dysfunction and self-regulatory issues to aid chronic sensory withdrawal. After building a relationship and trust with Tom, Durrani motivated him to pour paint over paper of different colors by modeling the activity first. Later brushes and a paint roller were introduced and used to smear the paint. This yielded the discovery of paint and rollers being Tom's preferred materials of choice and resulted in continued use and participation during art therapy sessions. Qualities of

paint provide sensory stimulation and a new experience of art making for children with ASD. Art therapy research suggests that painting provides *benefits* such as socialization, communication, and relationship building, as it prompts more direct involvement with the art therapist and child. However, this way of thinking about the *benefits* of art therapy leaves out higher processes of thinking.

Esther J. Brokaw (an artist with ASD) expressed how painting has had impacts on her life (Mullin et al ., 2014, p. 82). Brokaw states that they had a strong desire to paint, but was nervous, scared, and hesitant to attempt painting. They did a writing exercise to get past their fears of painting. Painting helped Brokaw gain flexibility and an openness to try new mediums in their art. Currently, the artist's work is based around landscapes and beauty observed in nature. When asked: "why did you start creating art?", Brokaw stated that: "I had bare walls and a strong desire to paint but I had to do a writer's exercise to get past the fear before I could even try. Through a great mentor, I learned that I was more afraid of living my life without trying and passing that fear on to my children, than attempting to paint. I named my first painting The Awakening because it truly was" (Mullin et al ., 2014, p. 82). This is an example of how art impacts an autistic artist. Art therapy should open the door to the possibilities and positive impacts of creating art. Through exploring new media, Esther Brokaw discovered new flexibility and openness to try new things.

Clay

Another significant medium of exploration is clay. Clay, unlike drawing and painting, is a wet three-dimensional material that has the ability to be molded, sculpted, and assembled. Increased physical contact with the hands compared to working with two-dimensional materials is a unique quality of clay. Clay satisfies an immediate sense of touch while being manipulated by the hands. Researcher, Elbrecht explains, "materials that offer resistance through weight and invite touch through their three-dimensional aspect, such as clay, are the preferred medium for stimulating the kinesthetic, sensorimotor, function in individuals" (p.185). The heaviness and density of clay is unlike other materials and evokes physical engagement.

With more hands-on, sculptural, and physical contact with clay different techniques and skills arise. Three different molding techniques are additive, reductive, and bas-relief (Martin, 2009). Additive and reductive techniques are both in the round and consist of adding or reducing clay to sculpt. Martin suggests three basic forms as an introduction to sculpting with clay; these are balls or spheres, cylinders or "snakes", and flattened slabs or "pancakes" are three forms that can be used as an introduction to manipulating clay. Martin, suggests that children with visual/spatial difficulties may find molding in the round difficult as all sides and orientations require attention. The bas-relief technique is when only one side of a slab of clay is worked. This technique is said to be helpful when transitioning from two-dimensional work, such as drawing and painting, to three-dimensional work.

Physical movements that are involved when working with clay include pinching, pounding, rolling, pulling, rubbing, sticking, twisting, poking, slapping, and squeezing.

These movements work the fingers, arms, and shoulders (Martin, 2009). Clay stimulates the sense of touch, smell, sight, and sound in unique ways compared to two-dimensional work. The malleability of clay with the hands combined with seeing and listening to it change shapes connects physical bodily movement to the mind while mentally processing how the material is reacting to manipulation. The ability to be molded into infinite shapes and textures as well as the natural state of the material being wet and sticky, or dry and hard, are features that artists can respond to. The sounds that clay makes while being worked are accompanied by earthy smells.

According to Elbrecht (2012), rhythmic movements of the hands from rolling, pinching, and flattening as well as movements of the body, such as rocking and swaying, are promoted when working with clay. Research suggests this can serve as a repetitive or sensory-seeking behavior, or a form of stimming, for children with ASD. In a study by H. Durrani (2019) of a six year old boy with ASD, rolling balls of clay in his fingers would help regulate anxiety. This fulfilled his need of sensory seeking repetitive behavior and would allow him to transition to other activities that otherwise would have been challenging for him to participate in, like sharing in a group. This is a clinical research example of how working with clay can satisfy sensory needs of autistic children and help regulate behavior and willingness to participate or socialize. Once again therapists focused on potential *benefits* of art therapy, that aim to *treat* characteristics of ASD and left out the voices and opinions of autistic individuals.

Blake Zucker, an autistic ceramics artist, describes their work as functional ceramics. Zucker states that “I enjoy the useful quality of my works along with form and

function. I make each to last and be enjoyed daily, especially my mugs" (Zucker, 2020). Going into detail about their artistic process, Zucker explains that: “My pottery is made on a pottery wheel, the spinning movement is soothing. While pulling up the clay there’s a manipulative force and creative energy that allows me a sense of freedom” (Zucker, 2020). The physicality of clay is soothing to the sense of touch while encouraging inner confidence. Zucker continues discussing their process while working with clay stating that: “Wedging clay is a pure physical movement and fierce energy, this is satisfying in itself. Thinking of what I will be making, I slap the clay on the wheel. While centering the clay I give thought to what I will be making” (Zucker, 2020). Here, Zucker is describing the mind and body connections that are established while wedging clay prior to working with it on the wheel. Talking about qualities of clay, Zucker states that “clay has a forgiving quality that’s appreciated with a flexibility that most materials don’t offer” (Zucker, 2020). Qualities of clay that Zucker emphasized as significant in their practice include physical movements involved in the processes of wedging clay, centering it on a potter’s wheel, and pulling clay upwards to create a vessel.

Zucker discusses how their art helps them communicate, stating that, “at times my work conveys a message to others” (Zucker, B., 2020, Feb. 16). Where words fail, art communicates. Zucker explains, “when I’m unable to sort out my feelings and thoughts my work can express emotions, helping me move forward and bring a balance in life” (Zucker, B., 2020, Feb. 16). Zucker continues to describe their art, claiming that “many times my works are a profound voice when I have difficulty speaking” (Zucker, B., 2020, Feb. 16). Creating ceramic art has introduced Blake Zucker into a new form of

expression and communication, while encouraging socialization during participation in art shows and exhibitions.

Fiber

The tactile, rhythmic movements in the process of working with clay are present while working with fiber arts as well. Recall the physicality of repetitions in creating art that were observed in Marilyn Cosho's piece, String Fairy, mixed media, 12 x 16 inches, 2009 (Mullin et al., 2014, p. 51). Cosho incorporates string into their work. Cosho states that "the repetitive movement in creating art is calming. My layout and design often reflect the autistic mind— being drawn to detail and order. Creating order counteracts feeling fragmented" (Mullin et al ., 2014, p. 51). Returning to the small scale survey that I conducted, titled *Art by Individuals with Autism*, fiber art is discussed. One response states that "crochet is most of my art. I can make anything if I have a pattern in front of me and can sometimes manipulate patterns to make something new" (*Art by Individuals with Autism,* 2020). This artist expresses the claming repetitive qualities of fiber art, stating that it is "soothing and lets me show others what I am good at" (*Art by Individuals with Autism,* 2020). I have found that autistic fiber artists are not researched as often, or represented as often as other media artists. I would like to see more research and representation of autistic fiber artists.

Conclusion

Art therapists have a limited idea of what materials are, not thinking about the higher conceptual aspects of artmaking. This is *symptomatic* of the entire medical model. Researchers focus on doing things with children, in childlike ways. They overlook the sophistication of children's art, placing limits on their capabilities. Artists are full beings. Researchers treat children with ASD with no consideration of their full capabilities, pushing them towards an idea of normalcy. Artists with ASD show ways in which autism *functions* as a whole way of being; whereas researchers attempt to make autistic individuals *function* within a limited idea of normalcy. For example, some of the core *benefits* of art therapy for autistic individuals according to clinical practice, include sensory regulation and an increase in communication and social skills. Sensory regulation represents an attempt to get autistic individuals to accept uncomfortable and painful sensory intake, disregarding the person undergoing art therapy and their experience of the world. Attempts to increase communication and socialization represent efforts to mold the person undergoing art therapy to communicate in a normalized way. This ignores how the individual communicates naturally. Behavior is communication. Flapping, twirling, tapping, swaying, and any other stimming behavior, are all forms of communication.

Instead of modifying how autistic individuals communicate we should learn what their communication means. Art therapy should be seeking *benefits* for the person. Clinicians and therapists may have the best intentions for truly helping their patients. Montgomery explains that "there are 'good workers' in institutional settings, people who

try to mitigate the brutality of them. And the work they are trying to do is not unimportant. I am grateful they exist" (2019, para. 20). However the system "good workers" participate in is corrupt and structurally harmful. Montgomery continues, stating "we could have 100% good people trying to do their best within the system and we would still produce horrible results" (para. 20). This calls for a change within the system. We need to shift from treating a systematic problem as a collection of individual problems and critically analyze how the individuals undergoing art therapy can truly and personally benefit from it. This shift can take place by not trying to eliminate their *symptoms*, but trying to uncover *benefits* of creative practice.

This shift would require a transition from the pathology paradigm and the medical model to the neurodiversity paradigm, as well as the elimination of ABA therapy and its ideology in art therapy practice. The endeavour to regulate *symptoms* of autism abides by the medical model and pathology paradigm. Thinking of different ways of being as *symptoms* originates from the pathology paradigm's idea of one "right," "normal," or "healthy" way of being, and is reinforced by the medical model's push for a "cure". ABA therapy is a direct product of the pathology paradigm and the medical model, attempting to normalize behavior through positive and negative reinforcement and conditioning practices.

Shifting towards the neurodiversity paradigm would make art therapy serve the individual, revolving around their perceptions. The neurodiversity paradigm recognizes and respects the range of brains and minds as a natural, healthy, and valuable form of human variety (Sinclair, J., 2012). There is no "normal". The neurodiversity paradigm,

applied to the way that people with ASD are treated, would mean that their ways of being are accepted, catered to, and worked with. Prioritizing autistic perspectives places value in their experience of the world, opposed to attempting to correct characteristics of autism. In order to shift towards the neurodiversity paradigm, this debate needs to prioritize the voices of autistic individuals.

In the future I would like to see research that not only asks autistic individuals about their experiences, perceptions, thoughts, and opinions, but centers their testimony. Ideally much of this research would be conducted by autistic artists. This would shift us towards the neurodiversity paradigm. Through adopting the neurodiversity paradigm in regards to research about autistic individuals, the goals of art therapy should shift with the research. Hopefully transitioning towards the neurodiversity paradigm creates a celebration of autistic personalities, along with a desire to understand them. Research about individuals with ASD should be guided by the voices of autistic people.

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Appendix A

The survey, *Art Therapists, Individuals with ASD, and Art Materials* (2019), was intended for art therapists who have worked with children with ASD and focused on material usage.

1. How many years have you been a practicing art therapist?

   Over 10 years, Between 5-10 years, Less than 5 years
2. How often do you work with children on the spectrum?

   Rarely, Sometimes, Often, Very often (select one)
3. What materials do you use most often with children on the spectrum?

   Pencils, Markers, Paint, Clay, Other (select one)
4. Please describe how you introduce new materials when working with a child with autism spectrum disorder (ASD).
5. Please describe how and why you would use each of the following materials in art therapy with children with ASD: Pencils, markers, paints, clay, other
6. What are common goals or desired results in your practice when working with children on the spectrum?
7. What approaches or techniques do you apply when specifically working with a child on the spectrum? How does this differ from working with other children?
8. In your professional opinion, briefly describe why you think art therapy is a suitable treatment for children with ASD. Why is art therapy successful with children with ASD?

9. Please anonymously describe one successful example of working with a child on the spectrum. What were their goals and how were they reached? What materials were involved?
10. If you could, please reflect on the experiences of autistic young people in their interactions with specific art materials, and how these interactions affected these young people during and after the process of art therapy.

Appendix B

The survey, *Art by Individuals with Autism* (2020), was intended for autistic artists and focused on material usage.

1. By taking this survey, you agree to the following (select all boxes to agree):

   -I understand that this survey is made for autistic people who make art.

   -I understand that this survey is anonymous and voluntary, with no intentions for publication.

   -I understand that I don't have to answer all questions, and that I can skip any questions that I choose to.

   -I am over 18 years old.

2. Please describe your art-making process and any benefits that you feel you gain from creating.
3. Please describe your favorite art materials to work with and explain why.
4. Please describe your experience working with wet materials, such as paint, printmaking, or clay.
5. Please describe your experience working with dry materials, such as pencils, markers, crayons, charcoal, etc.
6. Please describe your experience working with fiber materials, such as weaving, knitting, sewing, embroidery, etc.
7. Please describe your experience working with sculptural materials, or three-dimensional materials.
8. Please describe your experience working with digital art or photography.

9. Is there anything else that you would like to add, or feel that I should know about?