



Art therapy applied to an adolescent with Asperger's syndrome

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ABSTRACT

Asperger's syndrome is a neurodevelopmental disorder characterized by impairments in social interaction, restricted, repetitive and stereotyped patterns of behavior, interests, and activities. Adolescents with Asperger's syndrome have developed a compromised self-regulatory system, which leads to difficulty in many areas of functioning. Some of these areas include social, behavioral, emotional, and an increase in anxiety. Art therapy is an important activity based intervention that allows those with Asperger's syndrome to receive and learn information in a non-conventional, nonverbal, comprehensive, and expressive language. Over a 7-month period of creating art, Emma became increasingly more communicative and comfortable in areas of functioning, especially social interactions. The incorporation of visual creativity allowed her to express herself and be heard on a new level of communication. Through her artwork she was able to move from having difficulty in functioning to learning, growing, challenging herself, and making post-secondary education plans.

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Introduction

This article is a case example of an adolescent with Asperger's syndrome. Therapeutic engagement in the art making process enabled Emma, an 18-year-old female, to address her difficulties with social interaction and integration appropriate for her developmental age. It became apparent that the initial diagnosis of social phobia was not consistent with Emma's presenting symptoms. A psychological evaluation was performed, and it was determined that the diagnosis that appropriately addressed Emma's symptomatology was Asperger's syndrome.

Since difficulties negotiating the environment usually become apparent with Asperger's syndrome later than other pervasive developmental disorders (PDD), many times it is not until a child reaches adolescence that it is identified. The first sign of difficulty may show up within the secondary school setting, when peer interaction becomes integral to normal development (Ramsay et al., 2005). As a result of misdiagnosis, the adolescent does not receive the proper support, causing further delays in addressing the issues impeding normal development and academic achievement. This case example of Emma presents an illustration of an adolescent who was initially misdiagnosed. After art therapy, Emma is now progressing more appropriately within school and social settings.

Asperger's syndrome

Self-regulatory abilities help control, adjust, modify, and build tolerance for a range of social and sensory experiences. Self-regulation is compromised for adolescents diagnosed with Asperger's syndrome (AS). As a result, coping strategies tend to become idiosyncratic and/or socially inappropriate, leading to maladaptive patterns of behavior and excessive rigidity within familiar routines. Self-regulatory abilities that have not developed lead to emotional dysregulation, resulting in attention difficulties, and an increase in becoming stressed and withdrawn (Laurent & Rubin, 2004).

According the *Diagnostic and Statistical Manual of Mental Disorders, DSM-IV-TR (2000)*, Asperger's disorder (299.80) is a neurodevelopmental disorder characterized by impairments in social interaction and restricted, repetitive and stereotyped patterns of behavior, interests, and activities with no clinically significant delays identified in language and/or cognitive development. Those diagnosed with Asperger's disorder present with age-appropriate self-care, adaptive skills (outside of social interactions), and a curiosity about the environment. This typically causes a high incidence of late diagnosis for individuals with AS.

Social learning disabilities lead to the development of excessive rigidity and anxiety, especially while interacting with peers. When stressed, the AS individual may use idiosyncratic language and/or talk at length about a topic of special interest without regard for the listener's engagement (Attwood, 1998). These impairments lead to great difficulty in developing and maintaining an effective connection with others (Kaland, Mortensen, & Smith, 2007).

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Individuals with AS “describe being ‘mystified’ by interpersonal relationships and the reactions of others toward them” (Ramsay et al., 2005, p. 484).

As a consequence of AS, there is a manifestation of immature behaviors such as chewing on clothing, carrying unusual objects between settings, walking on one’s toes, flapping, pacing, and/or rocking (Miller & Ozonoff, 2000). AS individuals tend to avoid eye contact when in social situations, leading to difficulties in conceptualizing the thoughts and feelings of other people (Ozonoff & Miller, 1995). There is increased difficulty with coordination and motor delays, leading to clumsiness when engaged in physical activity (Miller & Ozonoff, 2000). As a result of their rigid thinking, they are limited in their ability to incorporate experiences and adjust behaviors (Church, Alisanski, & Amanullah, 2000; as cited in Farrugia & Hudson, 2006).

Farrugia and Hudson (2006) acknowledged adolescents with AS present with high levels of anxiety equivalent in intensity to those diagnosed with an anxiety disorder. However, this anxiety is not related to misinterpretation, but to what they are unable to interpret within the social environment. Unfortunately, medication has not proven to have a significant effect for those adolescents with AS when compared to those not on a medication protocol (Bellini, 2004; as cited in Farrugia & Hudson, 2006).

Individuals with AS typically process information and learn in a non-conventional manner. Many diagnosed with AS tend to be more receptive to information that is experienced visually. The use of creative activities exposes the individual to a nonverbal, comprehensive, and expressive language (Martinovich, 2003).

Art therapy for those with AS is an important activity-based intervention for encouraging growth (Emery, 2004). The visual form is useful in integrating nonverbal strategies that are congruent with the AS way of thinking. The goal is to build and reinforce new pathways of behavior. Utilizing both verbal and visual interventions, strategies become reinforced and can be integrated into the individual’s new learning, leading to behavioral change (Martinovich, 2003).

Those diagnosed with AS exhibit difficulty integrating concepts, linking ideas and seeing the “whole picture.” They tend to understand their world through personal experience, literal interpretations, and learned rules. Applications of art therapy create the “bigger picture,” and experiences can be seen as part of a great whole. This process allows for information to be integrated, developing patterns and structures that can be identified, leading to associations, generalizations, and abstract conceptual possibilities (Martinovich, 2003). Art therapy strategies can be used to emphasize visual characteristics when teaching emotions such as smiles, frowns, and excitement (Losh & Capps, 2006). Using visuals in the therapeutic session can help those diagnosed with AS gain insight into others views on social situations.

Case example

Description of presenting problem

Emma entered into therapy due to difficulty in school and socialization within her peer group. She was experiencing extreme anxiety, having difficulty tolerating the classroom environment and engaging socially, and avoiding eye contact. When her stress level increased, she would ritualistically tug at her hair and clothes, many times creating holes in her shirts.

Emma was referred by her psychiatrist for individual therapy with a private practice therapist, who is a licensed psychologist and creative arts therapist, holding both an art therapy registration and board certification. She arrived with a diagnosis of Social Phobia,

having been prescribed Lexapro, a serotonin reuptake inhibitor (SSRI) prescribed for depression and/or anxiety, to help stabilize her mood. Emma continued to be anxious and demonstrated a flattened affect, a common side effect of Lexapro. The psychiatrist thought that engagement in psychotherapy would be beneficial and help to better stabilize her anxiety. After evaluation, and a change in diagnosis, it was apparent that verbal therapy and her prescribed psychiatric medication were not meeting her needs, and art therapy was introduced into her treatment.

Background history

Emma was adopted at birth and therefore her medical background is somewhat unclear. Her adoptive parents report that the biological mother experienced a normal pregnancy and full term delivery. According to her adoptive parents, the biological mother had other children and believed that an additional child would be more than she could handle; as a result she decided to give Emma up for adoption. Emma’s adoptive parents report that they were present at the hospital when Emma was born and they were the only parents she ever had direct contact with. She was considered healthy at the time of her birth and the adoption. Emma has always known that she was adopted and was told that she was “a special gift.”

Emma is the only child within an intact family, living in a private home with her mother, father and two dogs. She has a large extended family involved in her life, and although they live in another town they get together often. At the time of her first session she was preparing to enter her senior year of high school.

Developmentally, there were no reported abnormal signs from birth through middle school. Her early school years were unremarkable, and it was reported that she was active and involved in school activities. However, once Emma reached high school things changed and she began to withdraw from social interactions. She started to isolate and become very anxious in the classroom. During her high school career she was being privately tutored for her academic subjects, but attended school for electives. Emma has never been identified with a learning disability, and her parents stated that the decision to tutor was due to the large class size in the school district. They also stated that Emma would become anxious when she had to participate in a classroom setting.

Diagnosis

Emma’s initial diagnosis was 300.23 social phobia (DSM-IV-TR, 2000). However, after evaluation and assessment her diagnosis was changed to 299.80 Asperger’s disorder (DSM-IV-TR, 2000) to better target her symptomology.

Intervention

Emma arrived for her intake session with both her parents. Emma sat quietly, positioned very close to her father and avoided eye contact. After gathering all pertinent information, Emma continued to meet with the therapist without her parents. She remained sitting in the corner of the couch avoiding eye contact and started to wring her hands. She would start to answer questions, but then continue to talk without staying on topic and demonstrated idiosyncratic speech. At the end of the intake session the therapist asked Emma if meeting with her for therapy was something Emma would be interested in continuing. Emma eagerly stated that she wanted to return.

Emma attended her therapy sessions consistently, always eager to enter into the session and appearing to want to engage, but not knowing how to begin. She would avoid eye contact while wringing



Fig. 1. “Using cut or torn out pictures from magazines, create a collage that represents who Emma is”.

her hands, grab her bangs in a repetitive pattern, and at times would even suck on the sleeve of her shirt. Many times during Emma’s conversations she needed to be redirected and refocused to the subject matter being discussed. Emma could be stopped and asked to refocus on what she was saying. She was then able to continue a focused and appropriate conversation, staying on topic and responding to questions.

Most of Emma’s focus centered on her desire to be social and have friends. She continued to explain that she did not socialize with her peers, but was very comfortable with her cousins who are several years younger. Emma also reported that she did not have any activities that she was involved in or looked forward to doing.

Emma would resist discussing her future, and denied that she had any thoughts or plans. At one point she stated that she would not grow up and even though she was almost 18 years old she would “continue to be only ten.” She stated that the bodily changes that a female experiences in puberty were very scary. After many weeks of her not looking toward the future, Emma came to therapy dis-

cussing the idea of going to college. She was going to apply to a school that offered a special program for students like Emma who displayed social and emotional difficulties. One of the requirements for entrance into the program was a psychological evaluation.

Emma’s testing battery consisted of the Wechsler Adult Intelligence Scale (WAIS-III), Thematic Apperception Test (TAT), Kinetic-House-Tree-Person (K-H-T-P), House-Tree-Person (H-T-P), and a Kinetic Family Drawing (K-F-D). As a result of the evaluation a clearer picture of Emma developed. On the WAIS-III she had an overall score that placed her in the borderline range. She presented with a significant difference of 22 points in functioning between her verbal and performance scores, with an 87 (low average) in verbal and a 65 (extremely low) in performance. Her strongest score was in verbal comprehension, and her weakest related to perceptual organization.

Emma exhibited continued difficulty with the projective storytelling of the TAT. She was unable to integrate a timeline with thoughts and feelings. As each card was presented, she appeared frustrated and reported the elements of the picture in a concrete

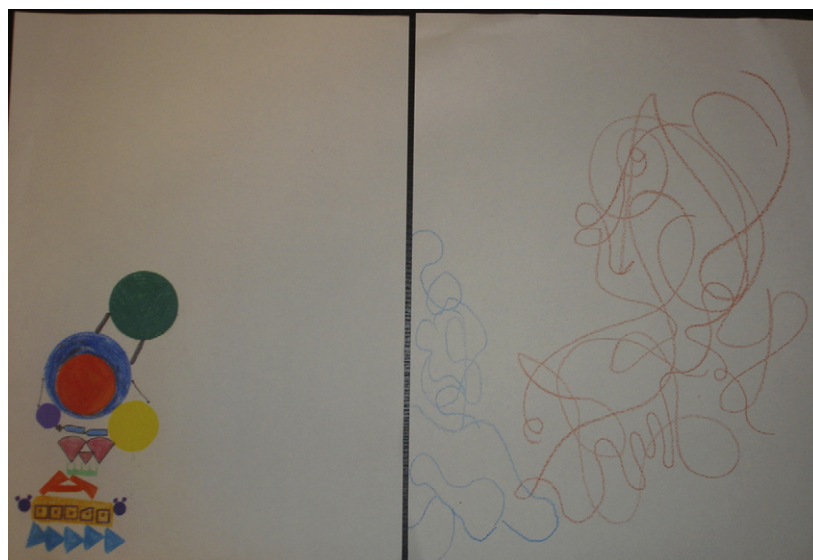


Fig. 2. “Create a picture using the templates provided as a guide,” and “A Conversation in Crayon”.



Fig. 3. Soft material collage: "Have fun with the materials supplied".

fashion. As she was questioned with probes she was able to come up with basic stories. The subject matter consistently included themes of isolation, depression, anxiety, and a need to be courteous in her interactions.

The K-H-T-P and the H-T-P were administered because it was apparent that Emma was not able to integrate a house, a tree, and a person in the same drawing. The H-T-P helped to alleviate the stress induced by separating the three elements into individual drawings. When reviewing Emma's results, it became evident that her difficulties with disconnection and interpersonal interactions started around the age that she entered into puberty. Her house had no entrance path or driveway to enter, there was a knot hole in her tree that could represent a change in functioning around 12 years of age, and she drew the person in light yellow, which was barely visible. The K-F-D also presented with a closing off from social interaction. Emma drew her family watching television; everyone was looking forward, disconnected from physical contact and interpersonal interactions.

Emma had difficulty with all the projective tests. She showed great difficulty with conceptualization, organization, and integration. This, along with the significant discrepancy in scores on the WAIS-III brought together a picture of someone diagnosed within the PDD classification. Emma's diagnosis was now changed to Asperger's disorder, 299.80 (DSM-IV-TR, 2000), and art therapy was added to her treatment. The focus of her treatment plan was on incorporating conceptualization, organization, and integration skills into her daily living.

Over a 7-month period of creating art, Emma became increasingly more communicative and comfortable in social interactions. A total of nine projects were completed, including four collages, a template design, conversation in crayon, coffee filter designs, mirror on tile, and masks.

The application of person-centered art therapy proved to be the best approach for Emma. The goal is for clients to become more autonomous, spontaneous, and confident. Employing active empathic listening in a safe space, the client feels fully heard and

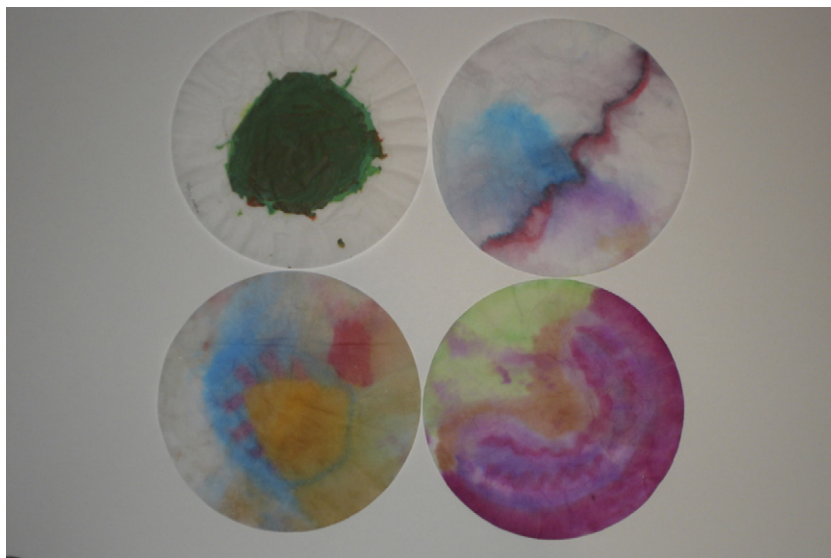


Fig. 4. Coffee filter designs with watercolor and markers.



(5)



(6)

Figures 5 and 6. Mirror and tile design: "Design the tile anyway you want, but you need to include at least one of the mirrors in your design".

deeply understood, and in the case of art therapy, active listening also includes active "seeing." Art expression creates a tangible outcome that taps into personal strengths and resources that can then be incorporated into positive, successful life changes (Malchiodi, 2003).

Collage is a great approach for allowing adolescents with AS to be expressive without the anxiety that drawing and painting may

trigger. Therefore, the first two art therapy sessions focused on creating a magazine collage. Emma was given several different types of magazines. The directive was, "Using cut or torn out pictures from the magazines, create a collage that represents who Emma is." Emma, having difficulty engaging in conversation, started nervously talking without acknowledging questions or input. She soon became engaged in her collage, cutting and pasting a number

of pictures. After finishing, she was asked to write adjectives that she would use to describe herself. She wrote the words “carefree,” “loveable,” “unique,” “nice,” and “spunky” very small throughout the collage (Fig. 1).

The outcome of the collage gave a good indication of Emma's world. She included pictures of a garden, animals, a car, money, a camera, and an anatomical heart, with space still available between most of the pictures. What was noticeable was that the collage did not include many human figures, and she took great effort in making sure that most pictures were not overlapping or even touching. The adjectives she added were written very small and tentatively. This indicated that Emma does not see herself as being connected to social situations, but prefers situations where social interaction is not required. However, the adjectives she added did express a desire for connection, leaving her to feel isolated.

Since Emma's testing indicated great difficulty integrating into the environment, the next project encouraged integration. She was given a variety of geometrical shaped templates, crayons, markers, and colored pencils. The directive for the next two sessions was to “create a picture using the templates provided as a guide.” Choosing to use colored pencils, Emma engaged with great intensity, applying extremely heavy line pressure as she traced and colored in the shapes, causing several pencil tips to break.

She appeared to be timid when starting, putting her design in the corner. However, as she continued, it was apparent that she was becoming more comfortable, and she started to integrate and move her design to the center, indicating an interest in becoming a part of the whole.

A conversation in crayon is an activity where each participant uses a crayon and converses, not with words, but by taking turns drawing on a piece of paper. During the conversation, Emma's drawing once again remained in the corner, resisting moving toward the middle of the page. The art therapist eventually moved closer and crossed her line. Emma responded by moving closer, but then retreated back to the corner of the paper (Fig. 2).

When looking at both the template design and the conversation in crayon, it was apparent that Emma remained very controlled, resistant to integrating her design. Emma acknowledged that she stays isolated, and expressed that she had a strong desire to be socially involved, but felt extremely awkward when faced with most interpersonal interactions.

Emma started discussing the fact that she was going into college next year. This was the first time that Emma spoke about moving forward and growing up. She continued to state that she was very happy that her difficulties were connected to a diagnosis, and expressed her desire to challenge herself and develop the skills to enhance her social interactions.

When Emma gets anxious she became fidgety, wringing her hands and pulling on her bangs. Emma has been known to pull on her shirtsleeve to the point of creating holes. To address this the therapist offered her the sandtray, since Emma had stated previously that she enjoys the beach. Emma touched the sand from time to time, but did not engage. It was then suggested that Emma use a soft pillow to hold when she was upset. This would allow her to have the tactile experience of soft material, while helping her to refrain from pulling on her clothing.

It was only natural that the next project enhanced Emma's need for tactile stimulation. During the following two sessions the project focused on creating a collage using soft materials (cloth, ribbons, string, decorative trim). Others items available included 11" × 14" white paper, scissors, glue, glitter glue, and puff paint. The directive was to “have fun with the materials supplied.” Emma chose a selection of items and glued them on white paper. At this point she started to use the glitter glue. She enjoyed making dots in almost a ritualistic manner throughout the artwork. She used her finger to spread the glue around, which also appeared ritualistic but soothing.

Emma utilized the entire page to create a composition. However, she continued to keep a large amount of white space. When reviewing the artwork, Emma stated that she enjoyed the glitter glue and found it relaxing to make the repetitive dots on the page (Fig. 3).

Coffee filter designs were used over the next two sessions to focus on integration. Coffee filters are used as the base to create a free flowing visual design. When the filter is wet and watercolor is deposited on the filter the paint will bleed and create a free form design. When multiple colors are used the colors naturally mix and integrate, creating new colors and a spontaneous design. Emma had a hard time allowing the colors to run on the wet filter. She began to paint a controlled circle on a dry filter. She became mesmerized, enjoying the sensation of the repetitive circular motion. Emma stated it was enjoyable to paint the heavy green circle.



Fig. 7. Expression collage: “List different expressions and then find pictures that represent each of those expressions”.



Fig. 8. Pulp masks: gaining familiarity with the face.

In an attempt to incorporate some control over the anticipated outcome, Emma was then given colored markers. She was directed to create a design using the markers on the coffee filter, which would then be dipped in water. Emma enjoyed this process and was able to create three designs. She was excited when her designs were dipped in water and the colors started to run. This activity acted as the catalyst to our conversation, focusing on allowing things to come together and being part of situations. Emma said that she likes being included and part of social situations, but sometimes she gets uncomfortable not knowing how to react when everyone is talking. At this point a role-play activity focused on how to interact in conversation and respond to what other's say (Fig. 4).

The next session focused on social interaction. Emma expressed that she has a hard time looking to others for social cues, explaining that she has difficulty interpreting facial expressions, so she avoids looking at faces, or even looking at her own reflection in the mirror. She was presented with a tile, a variety of mirrors, and art supplies. She was told that she could “design the tile any way you want,

but you need to include at least one of the mirrors in your design.” Emma first glued the mirror onto the tile, however, she only worked on the side of the tile and resisted moving to the top where the mirror was mounted. She once again engaged with glitter glue, using her finger in a tactilely soothing manner. She eventually added a row of plastic beads, surrounded by glitter glue (Figs. 5 and 6).

Emma slowly moved to the top of the tile, adding plastic beads and ribbon moving up toward the mirror. Finally, she finished off her design with a ribbon surrounding the mirror, allowing herself to see her reflection. She was able to integrate the mirror and even commented that she can see herself working. It was pointed out to Emma that facial expressions are very important in order to engage socially. The next exercise was to start looking at faces and learn what different expressions were saying.

Since Emma reported becoming more comfortable socially and wanting to challenge herself, the next session focused on creating an “expression collage” that would help Emma understand the importance of facial expressions. Emma was asked to write a



Fig. 9. Final magazine collage: “Using cut or torn out pictures from magazines, create a collage that represents who Emma is”.

list of expressions and then find pictures that represented each of those expressions. Her list included “annoyed,” “surprised,” “mad,” “upset,” “confused,” “deep in thought,” “excited,” and “happy” (Fig. 7).

Once the collage was completed Emma was asked the following: “When might someone make that expression, give an example of a time you observed someone using that expression, and have you ever used that expression?” Emma quickly came up with the when and why someone might make a certain facial expression, but only when prompted could she relate to her own experiences.

To help her increase her social skills, the next project focused on becoming more familiar with the face. She was given a white pulp mask to decorate and a variety of media, including paint, glitter, cloth, ribbon, glitter glue, and glue. She used her fingers to mix the red and yellow paint, very similar to the tactile experience of the glitter glue in earlier projects.

The conversation while decorating the mask focused on graduating from high school and going to college. She stated that she was both excited and nervous, but was ready to move forward and challenge herself. As she spoke, she continued to add red and use her fingers to blend it together. She started to add more pressure, and used black for the eyes. She continued to use her fingers and alternated between layering paint and wiping it off. Eventually the pulp started to break down. It was at this point that Emma spoke about her frustration regarding her father’s reaction to her leaving for school. “Dad is a man in his late 50’s who never grew up. Like Peter-Pan®. . . he doesn’t want to let me go. But I’m ready.” She continued to explain that her mother was supportive and ready to let go, but “dad is nice, but doesn’t want to grow up, or want me to grow up, and I want to. Dad is having a problem with me going to school. He has been in the bathroom crying.”

Emma said that she wanted to talk to her father. Once she finished expressing herself and a role-play was completed, she stopped working on the mask. She stated that she did not like the mask and wanted to start over.

She immediately started to paint a new mask bright green. She stated that the green was more like her. There appeared to be a lighter person emerging. The session ended and both masks were left to dry.

In the following session Emma painted over the mask with a darker green. She stated that she was making “Elphie®” from the play “Wicked®,” who has dark green skin. She added red eyes and chose letter beads to spell out “ELPHABA THROPP®,” which is the character’s formal name. Emma said that she relates most to this character, that she is sparkling on the inside, but people do not understand her. When she gets mad the spark is ignited and the fire comes out. Emma expressed that many times she feels misunderstood and that people just get upset with her. She said she was practicing her social skills, which helped to relieve her frustration and anxiety (Fig. 8).

The final two sessions, during which Emma prepared for termination, repeated the first directive; “Using cut or torn out pictures from the magazines, create a collage that represents who Emma is.” She immediately engaged, including mostly people laughing, thinking, and enjoying life. Additional items were a pile of money, chopsticks, the beach, the word Capricorn, and her own hand drawn picture of Tinkerbell® (Fig. 9).

When she finished she stated that she used pictures of things she enjoyed. She continued to explain that she added Tinkerbell® because even though she is ready to grow up, she wants to continue to enjoy things young people like, such as video games and baseball.

It was interesting to see how Peter Pan® and Tinkerbell® were used as representations of the relationship between Emma and her father. Emma was able to tell her story through her interest and connection to both Peter Pan® and Wicked®.

As we finished our final session, Emma was able to state that she was ready to move forward in her life. Options were discussed and presented, including post-secondary experiences. She also spoke about being more connected with people and enjoying new experiences. Emma understands that in order to continue forward she will have to keep challenging herself, practice skills from her art therapy experience, and express herself in a private art journal. It fact, Emma is very excited about bringing art materials to school so she can continue to create and enjoy expressing herself visually.

Conclusion

Over the course of the 7 months that Emma was engaged in art therapy, she became increasingly more communicative. When she first arrived she was experiencing extreme anxiety, had difficulty engaging socially and had no plans for the future. Through the use of visual expression and focused art therapy activities, she gained insights into her diagnosis of Asperger’s syndrome. This resulted in her feeling more comfortable in communicating. She was further able to discuss and make plans for the future, developing and incorporating new coping strategies and more useful social skills. She also became increasingly involved with her peers at school, and discussed and sought out post-secondary information, applications, and with completion resulted in an acceptance.

There were multiple advantages of art therapy for Emma. She benefited greatly from the multi-sensory immersion from her narrower world into the larger broader world that surrounds her. Adolescents similar to Emma, diagnosed with Asperger’s syndrome, have difficulty with interpersonal interaction. The art therapy process opened new avenues and channels of communication for her to utilize, which were previously not available and known to her. Through the use of art therapy, nonverbal communication is created into a tangible form, enhancing the therapeutic process to address the presenting problem. Through the use of artwork and metaphor, Emma was able to gain insight into her personal struggle. Once these concerns were addressed she incorporated them into her identity, changing her perceptions and behaviors. Her acceptance into a post-secondary educational experience and the resulting excitement and comfort with her social milieu was the culmination of the hard work Emma invested in her therapeutic process.

The only limitation was Emma’s need to leave for college and disengage from the therapeutic relationship and its support system. There was no availability to guide Emma while she transitioned into her new academic and social environment.

The implications from Emma’s experience are threefold. Diagnosis of Asperger’s syndrome can only be made from a full and accurate psychological evaluation and not from observed symptoms alone, as is often the case with anxiety and social phobias for adolescents. Art therapy creates a full sensory immersion and interaction of verbal, visual, and tactile modalities. This allows a client, like Emma, to have a fuller and more expressive ability to communicate with herself and the people and world they live in. A safe and positive environment with the exploration and expression of art relaxes and encourages the Asperger’s patient to develop greater self-concept, simultaneously strengthening greater self esteem and regard for others.

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