Use of Art Therapy to build new structures of self-concept

with ADD and Autism Spectrum Individuals

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Abstract

Determining with the use of Art therapy techniques the development of self-efficacy, improved personal expression and conscious integration of an improved self-concept for use with Learning Disabled (LD) individuals, specifically Attention Deficit (ADD) and Autism Spectrum Disorders (ASD). A discussion of the behavioral overlays observed in learning challenges, issues of self-concept informed by disability, and the connections to divergent/convergent thinking. Use of selected art therapy interventions and review of literature that explores how art therapy aides to externalize stress, increases personal expression, provides key insights, and increases positive self-concept. Use of Art therapy directives as a projective method for exploring past themes and to externalize anxiety states, use of Mandalas for identifying beliefs about the self, accessing unconscious discourses that block mastery with narrative methods, construction of and use of Soul Collage cards for exploration of patterns and improved self-concept. Adlerian and Narrative methods, Thinking style measurements, Jungian transcendent imagination, selection of qualitative methods for particular problems of experiential phenomena and the difficulty of quantitative research (McNiff, 1998). Art Therapy techniques as experiential multi-model treatment methods with LD individuals.
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Use of Art Therapy to build new structures of self-concept with ADD and Autism Spectrum Individuals

**Introduction**

**Traditional Therapy and Creative Arts**

Although Art therapy is a young field in psychology, imagery and narrative story are ancient expressions that may hold the key for organizing behavior based on a positive self-concept where skills of ability are built to compensate in a world where the values and expectations are traditionally more linear and difficult for learning disabled individuals who may structure things differently in both thought and expression.

To view disability as difference instead of inability is to have an understanding about different brain use types, the role of compensation, and how environment impacts brain use and behavior. Also a consideration and the focus of this review of literature is the capacity of the thinker, an IQ of 68 or above is considered a functional cognitive range and these techniques are geared more towards those with this level of ability.

As therapists using art therapy and narrative methods with those who have cognitive capacity with an identified disability (with noting the different learning style) we become more than technicians using techniques, but revealers of new identity skills that are built upon over the course of time. Issues of self-concept are separated from disability features and externalized in order to be focused upon through imagery.

The shift that causes change is in the physical attributes of skill building. It is profoundly recognized by the client and will change how they feel about their ability-- which is a small shift but an important one. One that through continued research and use will find a way to be part of the current evidence based practices recognized as valuable in the field of psychology.
The aim of this paper is to investigate the literature to see how Art therapy is effective for improving the self-concept of learning disabled individuals as part of a multimodal intervention within the mental health context. The evidence suggests that creative activities promote healing, relaxation, provide relief from stress, and provide a means of self-expression (Lechey, 2011). Behavioral, Neurological and Medical treatments benefit from mutual inclusion of all considerations aimed at improving self-concept.

**Art Therapy Defined: Projective Techniques and use of Imagery**

Currently, creative art therapies are often woven in as medical treatment to address stress experienced as a result being in both long and short term medical care facilities and considered a means of symptom relief as a brief standalone outcome (Johnston, 2009). Art therapy as a psychological intervention is used in both education and medical settings with its philosophy more aligned to theories of experiential human behavior.

Art therapists have been able to ground their work in a wide variety of psychological frames of reference, including psychodynamic, humanistic, developmental, cognitive, behavioral, solution focused, narrative, and spiritual therapy methods (Malchiodi, 2007; Rosel, 1996; Rubin, 2005).

The practice of combining current cognitive behavioral therapies and creative therapies are beneficial in that they both borrow from postmodern expressions of early psychoanalytical treatments and are beneficial in therapeutic, educational, and medical settings (Machiodi, 2007). The important feature of including art therapy approaches is grounded in helping patients suspend current thinking patterns in order to consider a new way of thinking about presenting issues in therapy.
Jung and Symbols

Jung's main archetypes are not 'types' in the way that each person may be classified as one or the other. Rather, he demonstrates how we each have all basic archetypes within us. He listed four main forms of archetypes: The Shadow, The Anima, The Animus, and the Self. As an example, the Shadow is a very common archetype that reflects deeper elements of our psyche, where 'latent dispositions' which are common to us all arise. In myth, it appears as the wild man, spider-people, mysterious fighters and dark enemies (1964). Jung also believed that "in spite of its function as a reservoir for human darkness—or perhaps because of this—the shadow is the seat of creativity. He stated that for some, it may be, 'the dark side of his being, his sinister shadow...represents the true spirit of life as against the arid scholar” (Jung, 1936/1981).

Art Therapy Techniques

Mandalas

Circles exist in the natural world in water, plants structures, heavenly bodies and in a historical context they exist in ancient rituals, have come to signify the mystery of birth, death and life. Researchers have found that infants prefer circular shapes and could possibly explain the bodily response to Mandalas in therapy (Fincher, 2000).

In native cultures the mandala as a medicine wheel is divided at four points representing each of the four cardinal directions along with symbols that include animals, colors cycles of life, meant to hold the knowledge of spirituality and self-knowledge (2000). Mandalas are seen in all ancient cultures each with significant features and meanings.

In Chinese cultures, a circle divided into dark, receptive Yin energy alternates with light, active expansive Yang energy. Throughout time mandalas were the shape that expressed the human pursuit of mastering and understanding that which we encounter.
Use of Mandalas is a time honored and much researched image-making activity. If a circle suggests a center point in which the eye can focus, the eye can be said to take less notice of that which is outside of the circle. Concentrating attention on what lies inside becomes a focal point and produces a general feeling of relaxation by its controlled ability to organize perception, thought and physical responses that are beneficial in the therapeutic process.

Coloring mandalas speak to the work of personal identity, provide an external place to locate and work through issues of the self in conflict with the ego, mandalas can serve as a catalyst in group centered activities and lead individuals into a deeper exploration into personal spirituality (Fincher, 2000).

**Jung on the Use of Mandalas**

Jung saw the self is the true center of personality represented in mandalas. He along with Freud and Adler believed that the ego comes into existence in childhood. The dynamic relationship between these two forces comes into play throughout a person’s life challenging and disrupting in order to keep a healthy equilibrium. The pattern is a natural cycle of active engagement, distancing, dormancy followed by reengagement is similar to the growing cycle of plants, the movement of the sun, moon and planets, and just as time is divided, we divide our circle or our mandalas into ways of engaging and understanding (Jung, 1964). In his extensive exploration of Mandalas Jung engaged in this play between light and shadow parts of his being expressed in the shape of a circle, the ultimate symbol of self, creative forces of imagination and the world he was grappling with.

Jung said that "the encounter with the shadow is the 'apprentice-piece' in the individual's development, and that the anima, or imagination is the 'masterpiece'"(Jung, 1936/1981). Jung viewed the anima process as being one of the sources of creative ability that needed to be
consciously cultivated. It is said that the key to controlling one's anima/animus is to recognize it when it manifests and exercise our ability to discern the anima/animus from reality (1992).

Efforts to incorporate unconscious drives into conscious living are by its nature a process of conflict between Reason and Imagination (Jung, 1936/1981). The psychological implications of this process can be aided by mandalas as a calming projection worked through as integration occurs and there is a new understanding built enabling these unconscious abilities to come into the scope of consciousness.

**Soul Collage Cards, Metaphor and Narrative Therapy**

Metaphor and Narrative methods are key elements that drive the work of Art in therapy. Beginning with images that respond to life challenges, they can be a visual dialog that facilitates a process for uncovering the internal self-messages driving behavior. Having possession of relaxed calm focus is essential and image serves by slowing down individuals to look at how their perceptions drive thoughts and actions. Once this awareness is developed as a skill then further images can create new ways of viewing problem saturated scenarios (White & Epston, 2008).

This is an opportunity for dialoging with the image (McNiff, 1992). By stepping outside of conventional grammar, dialoguing with an image deepens the creative process. McNiff examines how people suffering from psychosis are living in states of perceptual fragmentation, withdrawal, and extreme self-protection (1992). Image dialogues differentiate states of consciousness and connect inner experience to an external object. Conceptualizations connect the all-enveloping ego, which sees itself in everything and has the effect of improving self-concept and mood (1992).
The cultivation of positive moods with use of Soul Collage can become a closer in examination of the conflict between Reason and Imagination (Jung, 1936/1981). William Blake in his early years studied Swedenborg’s work concerning Divine Love. This he partnered with the beauty of his clean and cheerful strolls through Surrey and stored this image in his mind. These themes were to appear over and over again in his poetry and prose as a response (Singer, 2000).

Imagination is not just any response, it is the choice to view in the here and now a divine kind of image and cause it to emerge in a phenomenon of experience that to embrace imagination and beauty can cause it to transpose energy from one form into another e.g, negative into a positive.

Images by Blake that he called dualistic between reason and imagination are his attempt to portray the anima, the mistress of the soul free of the pain body and of reason who he represented as Jung’s masculine archetype. His images had themes that were responses to his studies and considerations that for him, “The essential subjectivity of perception through the five senses plus the non-sensory dimension of perception, which is the imagination” (Singer, 2000).

Two persons may see the same object yet respond in two completely different ways. This is perception. Reason demands it be seen in a way that is an accepted view, imagination remains as the fluid sense of incorporation of experience and mindfulness in conscious life.

James Hillman observed that loss of the ability to create is a loss of a connection to god. He writes, “…If god has died, it was because of his own good health; he had lost touch with the intrinsic infirmitas of the archetype (Hillman, 1980). I believe what is meant by Hillman is that that loss of understanding of the place and purpose of our darker side is to lose perspective due to the shadow side. Infirmitas or infirmity is what Jung called a lack of health or a shadow (Jung, 1964). Shadows can either add a dimensionality to life or serve as a flaw that surfaces and
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contributes to a state of non-health, infirmitas, or as within the use of Soul Collage cards a Neter. Throughout all time humans have developed archetypical ways of providing us with meaning for this shadow part of the self.

The metaphor of Neters or Neturu in ancient Egypt means “The Many” (Frost, 2001). Neters serve as the metaphor for manifested aspects of One collective being that serve as guides and challengers. Judgment and negative connotations are removed for the purpose of allowing an observer to be suspended outside of time and place to provide insight into their existence (2001).

In Narrative terms, Neters become a way helping us evolve beyond our current understanding or regain perspective brought about in the process of external images that are personal. Here the purpose of the shadow or Neter is to balance our imagination with the grounding force of reason. Through the therapeutic use of images, integration of the unconscious forces (or infirmitas) that can come to serve us by bringing into conscious contact with the higher part of us that is capable of engaging in a creating capacity by narrative symbolic means. As Blake understood it, we can gain the skills of understanding how imagination is capable of restoring us to our good health just by the remembrance of a walk in a favorite field. This image is used to shift perception in order to regain conscious perspective of what can do in the here and now.

An example of how with Soul Collage Frost transforms the shadow into a Neter is found in the category of Committee where a card is created in the collage process and entitled the Critic. Normally seen as the bad guy, the Critic can have merit by providing control over the impulsive childlike part of the self that is capable of sabotaging with its demand for resources in conscious life, or control of the mother who smothers, the part of us that causes a hesitation when decisive action is needed, or the artist who loses all time in front of the easel to the point
where the whole being may suffer (2001). Reason, or the Critic comes to represent to the maker of the card that there can then no longer the shadow or weak impulse who interferes. In its place is the masculine or animus part of us that succeeds in pressing on for completion of a project. This is a Narrative therapy technique helping to facilitate a shift in perception.

Another metaphoric and narrative example is a soul card created with collage that represents within the category of Council the Archangel card. The author of the card writes, I am the one who gathers many parts into the complex whole. I mix fire, water, air and earth to make it happen (2001). This is a way of externalizing what is a felt experience. Sharing this process in a group helps to widen the lens of human experience.

Group interactive art therapy is an effective way to make "group process visible." However, the curative potential of "creating together" is amplified when the stigma of the treatment environment is removed and group art making occurs in a normalizing setting that approximates the traditional art studio. When extended beyond the walls of traditional therapy and into community art studios, recovery programs, homeless shelters, and store-front, walk-in therapeutic art spaces, the proverbial healing powers of art flourish (Miller, 2004). Exploring and restoring imagination in all populations with all levels of ability are possible and necessary.

As Jung implied, staying with the image just may be the transcendent function that helps us see who we are, hold the moment, and accept what is, rather than what ought to be (Jung, 1964). The goal of transcendence as the catalyst for change is something that differentiates the way art therapists work from all other helping professionals because of their intention and use of art in therapy with that goal in mind.

**Metaphor: The Tree Theme Method**
In a 2010 Swedish study clients participated in structured intervention called The Tree Theme Method (TTM) (Gunnarsson, et al., 2010). The focus on understanding one’s life as a whole and encouraging change in everyday life in relationship to others is considered a client centered method. Patients are asked to draw a tree that will represent how they currently see themselves. The tree came to signify old beliefs and therapy was geared towards the building of new identity. After each self-concept building exercise, re-creation of the tree represented in the therapeutic process represented an improved ability to express individuality and as a symbol of change.

With the goal of focusing on the present, clients were able to engage in the intervention with an increased capacity for reflection, and depending on the capacity of the individual, build development of a greater perspective on other life circumstances. While the creative activity is curative in itself, image making can be a learned process that lends itself to problem solving in these other areas as one thinks in terms of being, doing, and becoming (Gunnarsson, et al., 2010). This is an example of a projective art therapy method used with narrative therapy practices valuable for exploring past themes, building present skills, and to externalize anxiety states.

**DAT: A Cognitive Art Therapy System**

The Del Giacco Art Therapy (DAT) system is a cognitive art therapy process that focuses on stimulating the mental sensory systems and working to stabilize the nervous system and used to create new neural connections in the brain. The (DAT) system was created by Maureen Del Giacco, after recovering from her own traumatic brain injury. It is based on extensive research of neuroscience concepts and observation of brain trauma victims and dementia patients and their recovery (Del Giacco, 2000).
The Therapeutic Drawing Series created by Del Giacco (2000) consists of a group of abstract color drawings, progressing from a simple group of shapes to more complex ones. The patient is asked to reproduce these using oil pastels. There are three levels of this activity. First is passive mode in which the patient may observe the therapist demonstrating the drawing process. Individuals are then invited to copy without looking at their own paper without concern with producing a precise reproduction.

The next task is semi active. They are invited to draw while looking at the original and encouraged to focus on media use and color choices. The last part in the exercise is more about utilizing analytic mental processes. Using rulers etcetera. In their reproduction this action can be substituted for the actual drawing process. DAT suggests use for improvement of visual-motor skills, color recognition, spatial recognition and attention. Various forms of art media may be utilized for this depending on the needs, abilities, and preferences of the patient (2000).

The important idea is to utilize visual-spatial activities in order to stimulate the creation of new brain pathways to rebuild or stimulate damaged areas. This process causes the brain to “fire” in many areas and to facilitate the right and left hemispheres to communicate (2000). These exercises utilize right hemisphere areas of the brain not normally used for processing data such as with verbal speech, the brain is forced to incorporate both hemispheres of the brain to create spacial representations instead of relying on linear directives that require more specific left brain processes.

Color can be the means of creating a calm state as in the Mozart effect, where the listening of Mozart is reported to reduce stress, depression, or anxiety as well as induce relaxation or sleep (Campbell, 1997) “Innovative and experimental uses of color, music and
sound can improve listening disorders, dyslexia, attention deficit disorder, autism, and other mental and physical disorders and diseases" (1997).
Use of Color in Therapy

Color and affect are areas that art therapists frequently rely on for skill development in treatment. For example, some colors create relaxed feelings in the observer, others anxiety. In traditional art therapy we may analyze a patient’s work based in part on their choice of colors. But 'art as therapy' as an action does not require a therapist to assess or to be a critic with either the process or the product of these directives. Emphasis on positive emotion is key. Color use can be very powerful in the exploration of issues of poor self-concept in that identifying and naming can be important tasks for consideration.

Color therapy has been used for educating or re-educating certain faculties where learning difficulties are experienced. Color serves to help isolated individuals build communication skills and strengthen their awareness of the others through social exercises involving color choice in the art making process. Image making modalities work correspondingly in the realms of thinking, feeling and willing, strengthening faculty and function. Because all artistic work is done with attention and intention, penetration of the ego into these realms is facilitated through the use of color as the third entity focused on during the therapeutic process (Del Giacco, 2010).

Narrative Therapy

Narrative therapy focuses on the stories of people’s lives and is based on the idea that problems are manufactured in social, cultural and political contexts. Each person produces the meaning of their life from the stories that are available in these contexts. A wider meaning of narrative therapy relates significantly to a relatively recent way of thinking about the nature of human life and knowledge which has come to be known as ‘postmodernism’ – which believes there is no one objective ‘truth’ and that there are many multiple possible interpretations of any
event. Thus within a narrative approach, our lives are seen as multi-storied vs. single-storied (Keeling, Bermudez, 2007).

Externalization of problems as a component of narrative therapy has been well defined by such authors as Epston and White, and Freedman and Combs (Keeling, Bermudez, 2007). Research findings indicate that narrative intervention helps participants express emotions, increases their awareness of personal resources and agency, helps to separate problems from the self, decreases symptoms and problem behaviors, and fosters a sense of empowerment (2007).

The potential usefulness of physically externalizing problems and interacting with them deliberately over time partnered with art therapy is one method relied on by professionals in multi-model treatments with various populations for symptom reduction.

Stories in a ‘narrative’ context are made up of events, linked by a theme, occurring over time and according to a plot. A story emerges as certain events are privileged and selected out over other events as more important or true. As the story takes shape, it invites the teller to further select only certain information while ignoring other events so that the same story is continually told. Narrative therapists see these stories as both describing and shaping people’s perspectives on their lives, histories and futures. These stories may be inspiring or oppressive (White & Epston, 2008).

Epston and White called these Problem Saturated’ stories. Problem saturated stories can become pseudo identities (e.g. I’ve always been a depressed person). If the stories are reinforced over time they invite a powerful negative influence in the way people see their lives and capabilities (e.g. “I’m hopeless”).

Therapists interested in narrative ideas and practices collaborate with clients in stepping away from problem saturated stories to discovering the yet untold story. This reframing process
invites clients to consider the preferred accounts of people’s lives; their intentions, hopes, commitments, values, desires and dreams.

When paired with a poem, short story or one line consideration, images can transform individual and group collective thinking. Use of narratives assigned and independently expressed are able to help with re-storying (2008). Together a family can reconstruct unique outcomes or find that as a group a re-storying intervention caused change to unfold organically.

What we know about the subjective information both provided and observed in the initial interview for the purpose of understanding and treating presenting issues is that an individual’s perceptions are a large part of how self-concept effects function. Diagnostic naming of disorders does not tell the whole story of function, nor does it provide an understanding for how disability is an alterable state. What labeling does is describe a discourse or a construct that stands as an immovable object to improved function. Narrative reframing and physical redrawing can break ties to discourse and construct of disability.

Art therapy seems particularly well suited for the expression and processing of deeper forms of psychic pain such as shame. McNiff states that “The arts are accustomed to speaking the language of the soul, and have a more immediate access to emotional conflicts and psychological pain” (Malchiodi, 2003). The use of image based interventions such as creating containers to express and release powerful emotions, making maps to organize a coherent trauma narrative and set future goals, using multiple media to illustrate the photographic nature of traumatic memories, and graphically representing internal and external sources of able to articulate with language.

Noted existentialist Irvin Yalom stated that the distinctive capacity of the normal human being is the ability to abstract, to use symbols, to orient oneself beyond the immediate limits of
the given time and space, and to think in terms of “the possible” (1980). He further observed that the injured, or “ill,” patients were characterized by loss of range of possibility. Their world space was shrunk, their time curtailed, and they suffered a consequent radical loss of freedom (1980).

In a discussion of how freedom, choice and responsibility are the foundation of self-awareness, Viktor Frankl’s approach is based on three philosophical and psychological concepts: Freedom of Will, Will to Meaning, and Meaning in Life found in Viktor Frankl’s Logotherapy (Frankl, 1997). He states that freedom of will derives from the spiritual dimension of the person, which is understood as the essentially human realm, over and above the dimensions of body and of psyche. As spiritual persons, humans are not just reacting organisms but autonomous beings capable of actively shaping their lives (1997). Self-concept is a potent topic for exploration with freedom of will explored in order to increase the range of possibility.

In the context of disability and cultural difference for how therapy with LD individuals is utilized, clients may feel it to be a betrayal of sorts to identify weakness in their selves or family structures Adler termed cautious encounters as evidence of safeguarding (Ansbacher & Ansbacher, 1956) where only by the establishing of trust we are able to move forward in therapy. Trust in the therapeutic relationship is also valuable to facilitate the separating out of self-concept issues from the disability and it is a key feature in chapter one of the new story that will unfold through new narratives constructed with use of externalization by image-making.

**Use of Art Therapies with Narrative Methods**

For years, artists of all kinds have been growing, learning and expressing themselves through their respective medias, but only until the last century and a half, have therapists turned
to the arts as a potential tool for healing. An example of narrative and art therapy combined as a treatment is in the creation of a spirit animal.

In the narrative of a salmon, discussion of how it swims upstream, gets banged against the rocks but keeps going towards the goal is introduced as a metaphorical concept meant to shift thinking. This image becomes that which becomes the discussion, the thought, and the consideration for how they may be like this salmon. Resilience is evidenced, determination, and adaptability. The client is invited to explore the image and the metaphor to see where it will take them in their thoughts then they are asked to provide an image. The image becomes the tangible reminder to anchor this new way of seeing themselves. To celebrate in them the will to get up every day and wade into the water. Courage! Adler would say.

**A Measure of Success: Creative Capacity and its Relevance**

In viewing the intelligence quota or IQ, Cognitive capacity and Creativity are measured using a test developed in the 1950's by E. Paul Torrance. Torrance developed his method for use in a variety of activities and questions to assess a person's ability for convergent and divergent thinking, or more simply -- problem solving on the fly (Torrence, 1974).

For 50 years scholars—first led by Torrance, now his colleague, Garnet Millar—have been tracking 136 Minnesota children used for the Torrance study, recording every patent earned, every business founded, every research paper published, and every grant awarded. They tallied the books, dances, radio shows, art exhibitions, software programs, advertising campaigns, hardware innovations, music compositions, public policies (written or implemented), leadership positions, invited lectures, and buildings designed (Bronson & Merryman, 2010).

Torrance’s tests have become the gold standard in creativity assessment, measuring the capacity of creativity of children. Miller studied these individuals who originally were the
subjects of Torrance’s creativity index and whom are now adults. He could not have predicted their remarkable creative accomplishments (2010).

The accepted definition of creativity is production of something original and useful, and that’s what the test hopes to measure. But given the many variable outcomes testing attempts to translate into baseline numbers, there can never be one right answer. To be creative requires divergent thinking (generating many unique ideas) and then convergent thinking (combining those ideas into the best result). Creativity defies being indexed. Creativity as the mother of all invention and imaginative problem solving ability are necessary in all professions. Engineers, doctors and businesspeople all need to be able to think beyond the narrow confines of their professional boxes. Blueprints, diagnoses and balance sheets are all forms of "art" that require just as much imagination as writing a novel or making a movie (2010).

In other countries creativity development is increasingly a national priority. In 2008 British secondary-schools looked to emphasize idea generation, and initiated pilot programs using Torrance’s test to assess their progress. The European Union designated 2009 as the European Year of Creativity and Innovation, holding conferences on the neuroscience of creativity, financing teacher training, and instituting problem-based learning programs and mental health treatments driven by real-world inquiry for both children and adults (Ward, Smith, & Finke, 1999).

Ward, Smith and Finke write about the normative nature of creativity and the common belief that it is limited specifically to a minority of talented people and has little bearing on everyday cognitive activities of the general population. They observe that even those who achieve notable creative accomplishments have a tendency to get trapped by prior experiences and to carry over knowledge that would be better left behind (1999).
The internal processing component involved with moving successfully beyond prior experience speaks to the mistaken beliefs about ability. The external is how disability can be positively framed as another type of thinking, addressing then the cultural error in how difference is viewed concerning ability. When both are successfully worked through it ceases to be a layer needing now to be addressed within issues of disability. What Torrence’s test and Garnet’s research ultimately has shown is that difference is often a discourse, not a phenomenon.

In American culture and in the industry of mental health there is a disconnect that reinforces difference and fractioned ways of addressing these differences as wrong, incomplete, and in need of treatment. A mistaken cultural/external belief is internalized by individuals and it is a misunderstanding of societal proportions. A valuable asset or resilience factor is the ability to see this as external in order to enlarge the capacity for accepting difference in the self and in others.

**Literature Review**

**Self-Concept: Adler’s Mistaken Beliefs**

Adler viewed early life events and the stories generated from them as Mistaken Beliefs (Ansbacher & Ansbacher, 1956). Often by the time a person plagued by mistaken beliefs about ability and identity has come to therapy, the stories they have about themselves and their lives become completely dominated by personal narratives that work to oppress them.

Central to Adlerian methods is the idea that the focus of counseling is to alter a client’s perceptual scheme or apperceptive schema (Ansbacher & Ansbacher, 1956). This was defined by Adler as the subjective viewpoint that lies behind mistaken thinking, the neurotic Life Style, Private Logic, the client’s Guiding Goal, Guiding Line, and Guiding Movement, to name a few.
terms associated with the inner workings of how mistaken beliefs become behaviors that are perception based.

This idea of self-concept is a fundamental idea and is basic to most therapies practiced today, within Gestalt Therapy, Transactional Analysis and Postmodern cognitive therapies. Narrative and Neuro-Linguistic Programming (NLP) speaks of "reframing" the client’s subjective understanding of what is true and what is possible with new ways of perceiving. Drawing from Adler, NLP Neuro-Linguistic Programming (NLP) is the basis for Neuro-Linguistic Psychotherapy (NLPt). It was developed by Richard Bandler and John Grinder. The core belief of this theory is that people do not react to their environment as it is, but rather they build their perception from their experiences as they relate to the world around them. This technique draws from Adler’s Lifestyle Development theory, where who they are, who men, women, children and the world is causes a person to view life through this lens of the lifestyle.

For an example, it is common that entering into therapy causes an individual to feel inferior and it is experienced as a felt minus because of a fictional view of abilities based on the disjunctive emotion that comes with a feeling of inferiority. In art therapy, this response leads some individuals to believe they are incapable of drawing which aside from technique is an issue of perception.

By restructuring internal discourses or the lifestyle with a new dialogue and externalized imagery, LD individuals create a way to reframe mistaken beliefs complete with a map they create themselves; visual, kinesthetic art can be utilized by both therapists and clients as the external construct that can now be examined that may provide forward momentum evidenced in behavioral changes and flow to the therapeutic process for improved self-outlook.
Therapeutic use of imagery as an intervention utilized for both short and long term treatments holds promise in that they qualitatively effect relief. According to art therapist Cathy Malchiodi, “All these activities are ways to soothe yourself, release stress and tension, give enjoyment and pleasure, and transcend troubled feelings. They are methods of self expression that change your state of being and tap your intuitive and creative powers” (2007).

**Divergent thinking and creativity: Building the Structure of Self Concept**

The highest levels of civilized society celebrate creativity yet do not recognize the components of convergent and divergent thinking. This idea has long been known in creativity research. Creativity involves a cyclical process of generating ideas and then systematically working out which ideas are most fruitful and implementing them. The generation stage is thought to involve divergent thinking whereas the exploration stage is thought to involve convergent thinking (Kaufman, 2012).

Under the Geneplore model, creativity is broken down into two distinct phases. The first phase is the generative phase, where lots of thoughts or concepts are spawned. The second phase is the explorative or elaboration phase, where the ‘memes’ generated from the first phase are expanded and explored in further depth (2012).

With art therapy methods the narrative or generative process could be termed divergent and exploratory themes in imagery can serve to externalize events as available information that can with a process of convergence be understood. The corresponding emotions that come out inform a now more conscious ability to explore, reframe and provide the more filled in picture for convergent thinking.

For some, traditional talk/behavioral therapies bypass the generative phase and can block insights into behavior because their inner dialogue is not fully articulated. The verbally gathered
information may be based on too few ideas, or ideas which themselves are too limited to warrant much exploration. When the exploratory process breaks down in therapy clients get stuck.

The solution of using Art therapy imagery is similar to the Geneplore model providing a stronger generative process so that there is more material to work with plenty of ideas ripe for exploration. Right brained image based activities frees up the intellect because imagery brings out the acquired conscious process.

Albert Einstein famously stated that "Everything that is really great and inspiring is created by the individual who can labor in freedom" (Einstein, 1950). Laboring in freedom is the ultimate goal in therapy. Therapeutic relationship provides a space in which individuals can now objectively manage or solve that which is needing their attention evidenced by behavior.

With use of art therapy imagery the purpose of its use is to deliberately suspend the conventional world of words and enter into freedom or convergence with corresponding actions of image creation. Criticism and judgment are temporarily suspended while we explore possibilities within the image. When we can be free of inner unconscious drives, convergent thinking is better able to be incorporated. We are identifying how to narrow down options to one or more preferred choices. The image has come to represent freedom in a world of choices.

Talk therapy is assuming an ability to easily perform convergence thinking. Through the addition of imagery we can consider a new analysis, criticism, logic, argument and reasoning to sort options and arrive at a different outcome. By using another part of our brain than the left brained logical side we can eliminate locked-up possibilities in order to choose a way forward.

Combining these two styles of thinking are very powerful when used in a multimodal way. An effective art therapy directive provides new ideation and consists of two phases. In the first phase we use divergent thinking to go beyond reason and to generate many ideas; no
criticism is allowed for what the image is to represent. Emotions are externalized in a beautiful or an awkward image alike. Acceptance of outrageous notions is considered just to see where it may lead in a safe therapeutic setting.

We demonstrate convergent thinking in the form of a metaphorical narrative used to evaluate the ideas that surface in order to select the best options for action or a new understanding. The combination of art therapy and narrative talk therapy work well together. If we allow convergent thinking to precede the images that provide the divergent thinking then new ideas will often be strangled at birth. It is too easy to find fault with partly formed notions so they are quickly eliminated and only safe options remain (Sloane, 2012).

Art Therapy adds a safe third entity; an externalized image for treatment that allows for a certain degree of disguise (Rubin, 2005). By removing direct focus off of the client and onto an image, both the client and the therapist can consider new possibilities. Imagery is a process entered into that is an externalizing method of viewing emotion, behaviors and choices about them.

There are positive and negative types of compensating behavior. Alfred Adler would discuss them as being the result of unconscious creation and fictional goals (Ansbacher & Ansbacher, 1956). He points to the fact that “In hours of insecurity, these fictions become more prominent” (1956, p. 93). The overlay of diagnosis is a powerful feature present in compensating behavior not without its message. Externalizing these deeply ingrained messages becomes the work of art and the new story formed in therapy.

Summary

Scott Lillienfeld writes about how when he entered graduate school in psychology at the University of Minnesota in the Fall of 1982, he was a bright-eyed, bushy-tailed 21 year-old eager
to learn about the mysteries of the mind. He states that something important was conspicuously absent from his intellectual repertoire; that he had not learned how to think. He used Stanovich’s (Lillienfeld, 2009) term dysrationalia, to explain a host of profoundly misguided beliefs he had about individual differences. He states that he came to understand that genetic influences on most psychological traits are trivial, Genes and environments always interact, that genes and environments cannot be separated, and IQ tests are invalid for predicting cognitive performance, and that IQ tests are strongly biased against minorities (2009).

It never occurred to him that some of his current beliefs were not only poorly supported, but contradictory. He recognized in doing his research that one cannot separate the influences of genes and environments, and that there is in his words “no way of ascertaining whether genes and environments interact statistically” (Lillienfeld, 2009).

In the field of psychology we attempt to adhere to treatments that are considered evidence based research practices as the gold standard of our profession as we tread carefully in parallel to the medical practices currently in place, lest we be accused of going down the rabbit hole with danger of losing our own way with unproven methods, experiential methods in particular are viewed with scrutiny.

Lillienfeld premises his statements about the feasibility of producing hard evidence for full scientific understanding of disorders and treatments by concluding that scientific thinking does not come naturally to any of us and that in many respects, science is “uncommon sense,” because it requires us to set aside our gut hunches and intuitions in lieu of convincing data (2009).

That said, all means of understanding the inner workings of the mind as it interacts with the physical body and the environments where individuals find themselves has the added feature
of what each individual calls their experience (2009). Creative skill building as an experience that improves self-confidence is not easily measured except by the observation and self-report that change has indeed occurred. In this, point of reference is everything.

In the Interest of Being Social: A Construct of Belonging

Social construction theory states that it is societies that determine where the line between normal and abnormal behavior is drawn. Thus society members including physicians, parents, teachers, and others are the ones who determine which diagnostic criteria are applied and thus determine the number of people affected by the language discourse of a diagnosis (Parens & Johnston, 2009). This is exemplified in the fact that the DSM IV arrives at levels of ADHD three to four times higher than those obtained with use of the International Classification of Diseases (ICD, 2008). Szasz, an extreme proponent of this theory, has gone so far as to state that ADHD was "invented and not discovered. Thomas Szasz, a psychiatrist whose 1961 book “The Myth of Mental Illness” questioned the legitimacy of his field and provided the intellectual grounding for generations of critics, patient advocates and antipsychiatry activists, making enemies of many fellow doctors (Johnston, 2009).

The concept of civilization seems to require us to differentiate 'other' in relation to ourselves as belonging to a majority. If we consider the social interest theory of Alfred Adler to emphasize the desire of the human drive of belonging, then difference is to be accepted internally first. Combining the use of Adlerian cognitive/behavioral interventions along with specific art therapies, neurotherapy, diet interventions, a successful multi-dimensional approach can be considered to help individuals to function with internal integration skills and be capable of a fuller contribution to the organism of the communities in which they live. A holistic multimodal approach is our best chance to provide alternative means to long term medication treatment and
CBT which alone has been shown to be conclusively ineffective. Secondly we must work as professionals to change the discourse in our field that with these methods we played a part in reinforcing the social construct of difference, and must all come to address our views for all our reasons.

Adler believed that because individuals are goal oriented or teleological, objective scientific experimentation cannot be utilized to understand human nature. Adler contended that movement toward the goal of perfection is the human striving that leads to the drive of belongingness (Griffith & Powers, 2007) which is a type of local understanding that provides meaning which calms and helps us to cease striving. Striving to belong is part of the battle of the battle in disability.

Rudolf Dreikurs, the American who incorporated Adler’s teaching into contemporary psychology in the states also believed that belonging was the goal of all striving. Jung among others wrote at length about the crucial role of initiation. Linda Sussman writes in her book Speech of the Grail (1995) about a threefold process of initiation that begins with separation, where an initiate leaves all that is familiar and comfortable, enters into a phase of metamorphosis, accomplished through a physical, psychological or spiritual ordeal of some kind, and concludes with a learning process that results in having a greater understanding. It concludes with the development of a new way of perceiving. This feature of finding one’s own self and belonging to community is a specific purpose that drives the cathartic process of initiation. Creating a new narrative, building new structures of self-concept with the use of imagery and art therapies can fulfill modern initiation needs. We have a universal need for it for the sake of belonging to the human race.
Like Jung we look for meaning that is self-made because we are most affected by the reality that we create for our purposes. He believed we must look to image because we are so captivated by and entangled in our subjective consciousness that we have forgotten the age-old fact that God speaks chiefly through dreams and visions (Jung, 1964).

**Critical Thinking Development and Self Concept**

Thinking critically means coming to terms with this human power of mind. Within our own capacities even though they vary, we strive to harness the power of the mind to create concepts through which we experience the world. The premise is that we all have some capacity and an ability to control and create with our thinking. To become a proficient critical thinker, we must become the master of our own conceptualizations. Development of a larger capacity helps to interconnect to form internal concepts that help us to master and use effectively our conceptualizations.

Art therapy is useful for freeing up individuals for well integrated critical thinking. Some of the difficulties with clinical and intellectually derived techniques such as EMDR, Eye Movement Desensitizing and Reprocessing and DBT, Dialectical Behavioral Therapy and other evidence based treatments currently in use are that they are a step too far into convergent thinking before intermediate methods are considered which art therapy lends itself to. We explore how capacity for change is a consideration.

**Overview of Disability Defined: An Introduction**

Capacity could be said to be informed by ability evidenced by success, just as lacking capacity could be observed as a lack of ability evidenced in failure or a series of failed events that reinforces a negative self-concept. The presence of behaviors as co-existing features of a
mental health diagnosis in an addition to issues of capacity could be said to be impacted by beliefs about ones’ ability or inability or self-concept.

Self-concept in relation to disability is viewed here as a singular or combined collection of perception based beliefs about what one is capable of that effects success. The experience of disability and perception play a part and combine to create the conceptual whole of the individual’s self-concept. Freud and Jung called it the ego, Adler termed it as the individual’s Lifestyle.

Self-concept can also have a family systems or cultural feature to it; what one family system or society may allow or even revere, another community or culture will identify as difference or that which is considered disordered in another place and time can be just a misfortune that life sometimes allows. If identified disability is coupled with perceived disadvantage, negative self-concept can be further reinforced. Perception is a powerful thing. Therefore, perceived inability or misfortune can ultimately be more powerful than disability itself.

Current Research

Research states that students diagnosed with ADHD, are placed at greater risk for academic impairment and underachievement than their peers without ADHD (Adams, 2011). The primary obstacle in choosing to attend college for adults diagnosed with ADHD may be related to low self-esteem. Thus, researchers have discovered over the past decade that low self-esteem is one consequence of ADHD that leads to depression, and feelings of inferiority and isolation (Adams, 2011).

ADHD is to no longer be considered a single disease or a single identifiable disorder. Research and clinical work has led to the conclusion that ADHD is a catch-all acronym that
includes a whole range of underlying disorders with a range of behavioral and functional
difficulties in children (Kearl, 2010). ADHD has never been a disease for which there is a
single test. The collection of symptoms that describes a disorder is often medically based and
anecdotal evidence by observation can focus on one aspect of behavior for example in an
education setting but for which there may be several causes.

Noteworthy proposed updates to DSM-V regarding diagnosing ADHD are currently
under consideration. The first is the doing away with the three ADHD subtypes developed in
DSM-IV: predominantly hyperactive/impulsive (HI), predominantly inattentive, and combined,
both inattentive and hyperactive (Kearl, 2010). Kearl states that over time the three subtypes of
ADHD have proven to be problematic because many children who met criteria for a given
subtype at one point, met criteria for a different one a few months later (2010). One proposed
way of eliminating the three subtypes includes grouping all inattentive and hyperactive, and
impulsive diagnoses together (2010).

Higher rates of attention deficit disorder are found when using the Diagnostic Statistical
classificatory system as compared to the International Statistical Classification of Diseases and
Related Health Problems, 10th edition (ICD-10) developed by the World Health Organization
(WHO, 1992; Bird, 2002). Both classificatory systems (ICD-10 and DSM-IV) require that the
symptoms present be developmentally inappropriate, persistent and frequent (2002). However,
operational definitions of what these terms mean within the context of culture are not provided
by either of the two classificatory systems, leaving decisions to clinical interpretations and
assessment uncertain and inconsistent across different studies (2002).
In conclusion the social and developmental context in which behavior occurs is what distinguishes normal from disordered behavior; deciding what is inappropriate development or harmful dysfunction is ultimately a social judgment.

**International Views of ADHD**

French child psychiatrists view ADHD as a medical condition with psycho-social and situational causes (Wedge, 2012). Instead of treating children's focusing and behavioral problems with drugs, French doctors prefer to look for the underlying issue that is causing the child distress and don’t view it as an abnormality in the child's brain but in the child's social context. They then choose to treat the underlying social context problem with psychotherapy or family counseling (2012).

This is a very different way of seeing things from the American tendency to attribute all symptoms to a biological dysfunction such as a chemical imbalance in the child's brain that requires medication (Wedge, 2012). There is a very cultural aspect to how a society views and treats symptoms.

Within the French holistic, psycho-social approach there is more consideration of the environmental and nutritional causes for ADHD-type symptoms. This is an exciting consideration in that other nations such as in Australia rely on research into the gastrointestinal and biochemical features of Learning disabilities and are demonstrating how symptoms are better addressed and treated with dietary changes before any behavioral therapy is considered.

**Autism Spectrum Disorder (ASD)**

According to the Centers for Disease Control, autism rates have doubled in the past thirty years. Research published in the Journal of Pediatrics reveals that in the U.S. in 2007 about 1 in 91 children ages 3 to 17 were somewhere on the autism spectrum. That's more than any previous
survey has found. The new study then goes on to cite earlier research showing that the life-time medical cost of dealing with ASD is $1.6 million; other research cited says ASD-related costs borne by the health-care system rose 142 percent from 2000 to 2004 (CDC, 2007). These numbers speak to how medical conditions, as well as disability and behavior are framed in the United States.

In an effort to change American thinking about learning disability pathology, it is necessary to look at global models as suggested in the International Diagnostic Manual for a way to balance the context in which disability is viewed. While all other nations have policies that attempt to address the needs of those who present themselves as having disorders, they are not always viewed as deficits but as treatable behaviors with biological and social factors. Consequently a multimodal approach to assessment and treatment is essential (Fuchs, 2003).

In current practice, the recommended treatment for autism entails educational therapies, applied behavior analysis, speech therapy, sensory integration therapy, auditory therapy, etcetera. Reports and physician surveys have shown some evidence that diets based on food elimination and rotation, as well as supplementation and alternative treatments aimed at intestinal healing and detoxification, have had some success in ameliorating the symptoms of autism. This has prompted research into a whole-body treatment approach, with the suggestion that autism should be treated as a whole-body condition (2003).

Treatment approaches under recent study include supplementation, detoxification, dietary intervention, treatment of gastrointestinal (GI) symptoms, treatment of chronic inflammation in the brain and intestines, and immunologic treatments, among others (Fuchs, 2003).
Aspergers Syndrome

One diagnosis that will no longer be appearing in the DSM as a stand-alone disorder is Asperger’s Syndrome. It will now be a feature of Autism included as a spectrum of behaviors associated with higher functionality in the general population. The main features of Asperger’s Syndrome are (a) Reduced quality of social interactions, (b) Unusual patterns of interest and/or behaviors, (c) Poor motor co-ordination; (d) Unusual speech patterns and (e) Sensory sensitivities (NIH, 2008). Children with Asperger’s have very high anxiety, and research indicates that 40% of children diagnosed with Asperger’s Syndrome also meet the criteria for ADHD. Treating only the ADHD symptoms leaves the debilitating anxiety associated with this dual diagnosis when untreated (NIH, 1988).

What distinguishes Asperger's Disorder from autism is that ASD individuals have less severe symptoms and the absence of language delays. Children with Asperger's Disorder may be only mildly affected and frequently have good language and cognitive skills. Children with autism are frequently seen as aloof and uninterested in others. Individuals with Asperger's usually want to fit in and have interaction with others; they simply don't know how to do it. They may be socially awkward, not have an understanding of conventional social rules, or show a lack of empathy. They may have limited eye contact, seem to be unengaged in a conversation, and not understand the use of gestures which is described as missing social cues (NIH, 2008).

Hobbies and interests may border on the obsessive. Children with Asperger's Disorder frequently like to collect categories of things, such as rocks or bottle caps. They may be proficient in knowing categories of information, such as baseball statistics or Latin names of flowers. While they may have good rote memory skills, they have difficulty with abstract concepts and integration (ASA, 2013).
One of the major differences between Asperger’s Disorder (AD) and Autism Spectrum Disorder (ASD) is that by definition, there is no speech delay with Asperger’s. Individuals with AD frequently have good language skills; they simply use language in different ways. Speech patterns may be unusual and they may not understand the subtleties of language, such as irony and humor, or they may not understand the give-and-take nature of a conversation (ASA, 2013).

Another distinction between Asperger's Disorder and autism concerns cognitive ability. While some individuals with autism have intellectual disabilities, by definition a person with Asperger's Disorder cannot possess a "clinically significant" cognitive delay and most possess average to above average intelligence (2013).

While motor difficulties are not a specific criteria for AD, children with AD frequently have motor skill delays and may appear clumsy or awkward. Again with the change made to the diagnostic criteria it remains to be seen how treatment will change in the field.

**Traditional Treatment Methods Practiced**

In relation to current methods relied on for treatment with Learning Disabled individuals, behavioral and cognitive therapy methods are traditionally employed in mental health and education settings. However, one third of children with autism and autism-spectrum disorders receive scientifically unsupported interventions, like sensory-motor integration therapy and facilitated communication (Levy & Hyman, 2003), the latter of which appears to be mounting a major comeback in the media, if not in actual clinical practice (Lilienfeld, 2010).

**Applied Behavioral and Cognitive Behavioral Therapies**

Applied Behavioral Analysis (ABA) and Cognitive Behavioral Therapy (CBT) therapies in conjunction with art therapy can help to re-frame current thoughts and attitudes that effect daily function of LD individuals. By the engagement of motor and sensory functions in a
therapeutic process, art therapy can actually help to stimulate important parts of the brain and thereby through the use of cognitive reorienting, narrative, and image based therapies facilitate involvement in the therapeutic process more easily and more naturally (Del Giacco, 2010).

While Cognitive behavioral methods are not always able to evoke change in behavior singularly, adding imagery as a process engages and combines the senses in a way verbal therapies cannot. As a result, the medical community implements and terms creative arts as a doing intervention, less emphasis being placed on verbal process and the outcome measured by symptom relief.

An art therapy example commonly partnered with CBT and ABA therapies is what is called The Safe Place directive. The client is asked to create or identify themselves as a spirit animal and then asked to create a safe place for them to dwell. A decrease in cortisol, and improvements in social function have been identified with use of these combined methods (Del Giacco, 2010).

It has been identified that creative arts can be considered therapeutic as well as transformational and not merely an intervention or diversion (Lechey, 2011). Although it is stated that quantitative research of image-based methods provide a weak argument for being evidence based, it is often due to the manner in which the data is collected. The qualitative nature of art therapy use lacks a statistical clear evidence base or structure and due to the observation that it is subjective which makes it quantifiably difficult to define (2011). It remains the task of the Art Therapy and Creative Arts professionals to develop that sound research in the treatment of individuals.

For those who experience cognitive dysfunction and disability, art can be a recognized method for externalization and improvement of symptoms, for an increased ability to develop
coping strategies, and for an improved self-concept which is then no longer implicated with disability as an internal discourse which speaks to the necessity for qualitative methods however difficult they are to measure.

The term ‘evidence based’ practices is a buzz term used to identify the more common practices of behavioral and cognitive therapies distinguished from the more postmodern and referred to as experimental treatments. Creative therapies are considered as less evidence based.

**Neurotherapy**

Neuroscientists have developed technological interventions that have been shown to target and build specific brain structures in struggling learners. Neuroscience has demonstrated that through brain-based learning practices, all children who have IQs within normal limits, even those diagnosed with severe learning disabilities like dyslexia, have the capacity to learn successfully and master all subject areas (BNC, 2010).

Computer interventions designed by neuroscientists have been shown to build up the regions of the left hemisphere responsible for perception of speech sounds, working memory, and oral language skills. The interventions are composed of brain-fitness applications that provide a series of daily exercises that seem game like to students but build brain functioning around memory, attention, processing speed, and sequencing capacity (2010).

There are currently in excess of 1000 clinics worldwide using Neurotherapy techniques for permanent remediation of symptoms with a reported success rate of around 80% of ADHD cases and many other mental disorders, without the use of drugs (Fuchs, 2003). To date there are in excess of 60 studies indicating that Neurotherapy is effective in the treatment of ADHD and other noted learning difficulties. Many studies have been conducted indicating that Neurotherapy is also effective in epilepsy, depression, traumatic brain injuries and other conditions. A Recent
placebo blinded controlled studies comparing medication and Biofeedback have shown that the positive treatment effects are indeed due to Biofeedback Treatment with effects appearing to last for years perhaps for life (Fuchs, 2003).

The work of psychologists, psychiatrists, neurologists and medical practitioners practicing Neurotherapy is largely unrecognized in mainstream and marginally accepted. This is partly due to the criteria established by the medical and pharmaceutical community that requires double blind studies for proof of the efficacy of a treatment (Fuchs, 2003).

Concerning use of another non-medical pharmaceutical treatment, thirty-nine percent of APA members who conduct clinical assessments “always or frequently” use human figure drawings in their practice despite consistent evidence that such drawings are invalid for the overwhelming majority of diagnostic purposes (Lilienfeld, 2010).

While we wait for studies to quantitatively show how research and evidence based treatments become commonplace, treatments like Biofeedback/Neurotherapy and Art Therapy are used to help patients and the proof is in the results of improved function, and increased critical thinking capacity.

**Treatments for Multi-Model Disorders**

Co-morbid or co-occurring disorders are identified as two or more disorders such as an individual who suffers with major depression as well as a substance abuse diagnosis. Because often the symptoms are more complex and can be resistant to traditional methods, multi-model approaches are explored. While Biofeedback/Neurotherapy, Eye Movement Desensitization and Reprocessing (EMDR), Facilitated Communication (FA), and Dialectical Behavior Modification (DBT) treatments are more common, narrative and creative art methods can be used in conjunction with theses although they collectively may not be categorized as evidence based and
proven. Many of these methods are utilized in a multimodal way while ongoing research is still being conducted.

Used ethically many methods discussed can be considered useful in a combined effort to evoke symptom relief and behavior modification. Ultimately it is within the tone of treatment and the therapeutic relationship that all methods are considered and the nuances of co-occurring symptoms are addressed.

**Sensory Integration Disorder (SDI)**

One example of a comorbid feature sometimes identified with ASD and ADHD are Sensory-motor Integration Disorders (DSI). Treatment is often occupational therapy based and used to assist individuals that show symptoms of being overly sensitive to touch, movement, sights, or sounds. DSI is also considered when features such as being under-reactive to sensory stimulation is identified evidenced when individuals may seek out intense sensory stimuli such as whirling, crashing into objects, or self-abusive behaviors or seems oblivious to pain or body position (SPD,2010).

It is stated that typically, a child with sensory integration disorder will have a constellation of these problem areas, showing more than one of the signs and that if unaddressed, these problems may result in poor self-esteem, difficulty with peer relationships, and poor self-regulation (SPD,2010).

**Facilitated Communication (FC)**

Facilitated communication (FC) has been widely adopted throughout North America in special/vocational education services for individuals with developmental disabilities who are nonverbal. A basic premise of facilitated communication is that people with autism and moderate and profound mental retardation have "undisclosed literacy" consistent with normal intellectual
functioning (APA, 1994). This is a controversial treatment due to the assumptions made about static capacity and the heavy-handed directive features of its use.

**Nutritional Considerations effecting Mental Health and Learning Disabilities**

Food allergies and abnormally high levels of some naturally occurring bowel bacteria found in Attention Deficit and Autism Spectrum individuals can increase amine production in the gut called gut dysbiosis. Recent research suggests that these trace amines trigger neurotransmitter receptors in the brain and may result in mental fog, fatigue and depression which is resistant to treatment by medication (Rossiter & La Vaque, 1995).

Gut Dysbiosis is a developing topic with research into gut health providing many of the answers for medical conditions such as allergies and asthma and needed background to solve issues into behavior and mental processes. For example, the majority of serotonin which is the brain chemical that helps us to feel positive and motivated, is made in the intestine. When an individual has irritable bowel syndrome (IBS), stress hormones are known to impact neurotransmitters and levels of toxins that can profoundly disturb mood, energy and mental function (1994).

Current research has found that treating gut dysbiosis by eliminating processed foods specifically grains and sugars, and establishing healthy gut bacteria with a corrective diet of whole and fermented foods is necessary for healing many of the underlying causes of cognitive impairments and returning the digestive tract to the healthy, balanced state which is natural to it (Pollan, 2013).

Diet modifications are commonly monitored and medically administered in other nations and is often observed as improving the health of individuals from depressed, exhausted, anxious
and brain-fogged to energetic, positive, focused and motivated states to where behavioral treatments can be more successful (1994).

While health organizations differ on the exact definition of compromised gut conditions and subsequent metabolic syndromes, a 2009 report from the Centers for Disease Control and Prevention found that 34 percent of American adults are afflicted with these conditions (Pollan, 2013). Recent studies state that reported findings of gut health is relative to issues of genetic polymorphisms involving impaired Methylation (protein processing) and improper abilities of system detoxification, or ridding the body of foreign particles. This impacting research has found that gut related conditions are overly represented in the ASD and ADD populations (NIH, 2012).

Since the expression of these mutated genes can be modulated with nutrients, it gives further support to the notion that evidence-based Biomedical treatments for ASD are a viable and necessary adjunct to applied behavior analysis (ABA), previously known as behavior modification therapy, the most common treatment method used with ASD (NIH, 2012). It is valuable to consider research presented in European circles concerning the issue of nutrition deficits as an important component within treatment for learning disabilities.

As the French have demonstrated, holistic, psycho-social approaches provide a less medicalized treatment policy for which Creative arts methods can be accepted and reliable techniques for the development of self-efficacy, improved personal expression and conscious integration of an improved self-concept for use with Learning Disabled (LD) individuals, specifically Attention Deficit (ADD) and Autism Spectrum Disorders (ASD).

Given the complicated theories and approaches to assessing and treating those with co-occurring disorders, results from the application of multi-model treatments and new medications are relied on and valued for what are termed in the industry as research based and outcome based
studies. Art therapy and Narrative methods are among these methods highlighted in journals always with a caveat that more research is needed.

Leaving it at that displays a lack of good understanding of what strengths can be built on to attain the goals of function that are beyond medical treatment, the nature of research and its ultimate use. Good quantitative research that is said to be evidence-based has to start first with the careful consideration of the positive personal outcome where self-concept is the motivating feature that evokes change for better personal and function by societal standards. After the initial broad statements are made the work becomes finding and implementing helpful treatment that will address the whole individual. It is possible that even though there may be many features and types of disability, selected holistic treatments can be considered and administered successfully.

**Summary**

The traditional medical and academic ways of both viewing and treating psychological disorders and learning challenges are limited due to the discourse of disability being abnormal or normal and borrowing from dominant culture constructs of what normal is. The ethical dilemma presented in medical and research circles for understanding and framing disability is about assuming capacity. Also in the reliance on limited treatments approved and regulated by the pharmaceutical industry and insurance companies. To rely only on evidence based treatments is to misunderstand the goal of success in treatment. The new discourse for mental illness and learning challenges can be about holistic treatment, increased awareness about skill building to improve capacity, and challenging the normative standards set by a dominant culture with a big business bias that is not relevant to society’s true aim.
Methodology

The research done for this project centered in on the topics of self-concept, behavioral issues, and disability with a nod to how Adlerian and Jungian schools of thought frame disability and difference. Books and research were considered by authors who made arguments for and against current evidence based treatments working with children with ADHD, and ASD for and against Biofeedback e.g. Neurotherapy and medication interventions. In contrast, articles and case studies were examined that discussed Creative therapy, also some of the holistic European models that discuss how they consider nutrition deficits and parent/client education before implementing medical interventions to manage behavior.

Woven into this project are various case studies and research written about Brain Plasticity, disability compensating behaviors, capacity, and viewing how disability and capacity is a fluid state. Researchers measured improvements and when that did not occur. What much of the researchers found was that skill building caused self-concept to improve which effected behavior positively. Articles were considered discussing population specific studies and how. All techniques seemed to be geared toward improvement and was positively correlated to improve symptoms in the short term. No matter what the population, skill building, symptom relief, and improvement of self-concept seem to go hand in hand.

Over seventy five scholarly articles were selected with use of EBSCO database retrieval from the American and International Art Therapy journals, Family Therapy journals, Medical journals, Occupational Therapy journals, and specific Learning Disability publications such as the American, Australian, Canadian and British Journals of Learning Disabilities. Also viewed were magazine articles such as Smithsonian, Time, and in popular table publications as well as articles pulled from Newspapers such as the New York Times and Washington Post
Additionally, web-based information was retrieved from Medical and Disability specific sites such as CHAD, The Mayo, and The National Institute of Health (NIH).

This researcher has found that AT and Narrative methods are often used in multimodal treatment with many different populations. Research results are discussed in an ongoing effort to understand effectiveness in many fields for example in Medical and Occupational professions that also implement creative therapy uses and in doing research into its effectiveness with their patients.

Focused research was sought that was specific to individuals with ADD and ASD populations with interest given to the role of the experience of having a disability, as well as when disability is a co-occurring condition in order to identify when possible compensation for processing challenges is a feature being missed and therefore not addressed.

It should be mentioned that identifying the level of cognitive ability is important in relation to using these techniques, but that capacity based on ability should not be assumed. Conversely, what may be seen as an indication of lower ability does not mean it will be over the heads of clients. It is known that outcomes of therapy using skill building improves higher capacity of function which is the point with use of these methods.

**Conclusion**

Temple Grandin in her new book co-written with Richard Panek discusses the autistic brain and behavior and how they are shaped by biology and environment. A professor of animal science at Colorado State University and a successful businesswoman, Grandin is one of our most astute interpreters of autism. She speaks about the experience of being autistic as well as comments on research that is out there currently being conducted. She states that researchers mustn’t assume that if a patient is exhibiting abnormal behavior and the scientists find a lesion
that they’ve found the source of the behavior. She writes, “I imagined myself opening the back of an old-fashioned television and starting to cut wires. If the picture went out, could I safely say I had found the “picture center”? No, because there are a lot of wires back there that I could cut that would make the TV screen go blank” (Grandin & Panek, 2013). The picture depends not on one specific cause but on a collection of causes, all interdependent. And this is precisely the conclusion that researchers in recent years have begun to reach about the brain—that a lot of functions dependent on not just one specific source but large-scale networks.

This researcher experienced firsthand the many challenges involved in executing a document that discusses therapy, self-concept, and disability. The concepts begin as static things needing to be shown to have a relationship. Use of color coding was useful to organize thinking. The color red was used for sections yet to be integrated, blue for cites which needed to be matched to the reference. Green text helped to stake out the art therapy uses, purple for the narrative sections. Color was helpful for organizing the document and larger print with single lines worked better to make a shorter distance to travel for the eye.

All these words on a screen. They were read repeatedly. During this process, colorful images were taped on the wall as a place to rest the eye and in view for consideration as part of the composition for how these many words related to one another. The color of the text along with response images dutifully held suspended the emotion response to the material and made organization of the narrative possible.

The many articles and books involved in this research needed to be within view on the table as reminders to be incorporated. They were referred to by being underlined and then highlighted and had commentary with questions for how they fit in the margins of the paper. If more than twenty four hours passed away from the project, the understanding of the research
changed. With each review, new considerations emerged and the whole became larger. It became necessary to start at the beginning and work up to the most recent point to maintain cohesive flow. The most challenging aspect of the project was reviewing the research of others, to hear their argument, but to make my voice known.

It became important for this researcher to consider how theses developed strategies were demonstrating firsthand how creative, spatial, color based art therapy interventions are useful for language comprehension and facilitate the creation of new narratives. The physical patterning and structuring techniques with use of color and images demonstrated how it worked for the goal of comprehension and completion of this writing project. Art therapy imagery provided shapes, fields if you will, as places to park the words that express the thoughts much like lyrics put to music makes retention of the words possible.

So how does art therapy partnered with narrative methods improve function and build positive self-concept for learning disabled persons? By the physical action of building new neuropathways between right and left brain function with language that is reinforced with imagery. The visual quality of these techniques impact self-concept and help to reframe disability. Skill building addressed processing challenges into mastery which in turn can now be viewed as ability and strength.

Not everyone can be Mozart or Georgia O’Keefe, with creative skills that are admirable the world over. Music and art are wordless. They can be our language and they are universal for our understanding. Language fails us; it is often said, even by those whose writing we admire. If only we could articulate like a famous Irish orator, who in his Irish culture believes kissing the Blarney stone will give the person the gift of oration. John O’Donahue writes,
“Your soul alone has the map of your future; therefore you can trust this indirect, oblique side of yourself. If you do, it will take you where you need to go, but more important it will teach you a kindness of rhythm in your journey” (O’Donohue, 1997).

It may be possible that fully half of the brain not currently being accessed by most, and possibly used exclusively for some learning disabled individuals. It is up for consideration that with different brain use, normative dominant discourse holds us captive until we ourselves unlock access. How that will occur is the mystery that is reveled over time. For this researcher, color and shapes make personal expression possible. The image patterning involved in art therapy can be how this externalization and integration is accomplished towards better function and quality of living.
References


