

Drawing on Imagination: Soul Care for Adolescents Through Art





Drawing on Imagination: Soul Care for Adolescents Through Art By Nanette Cross

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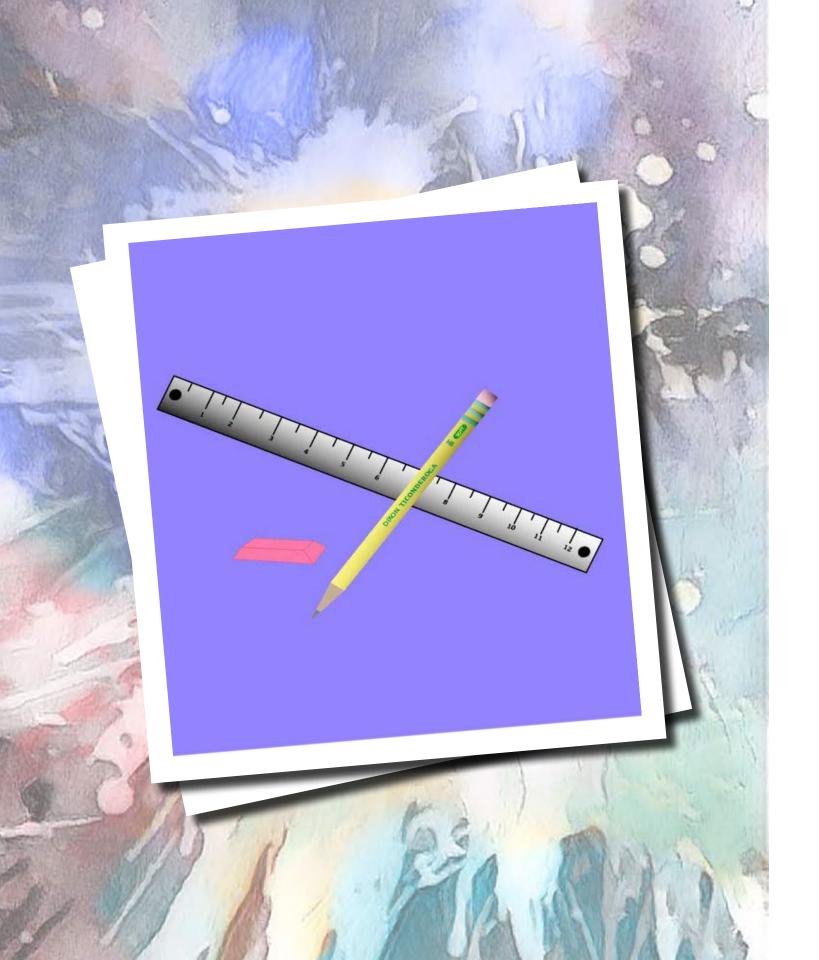
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Abstract

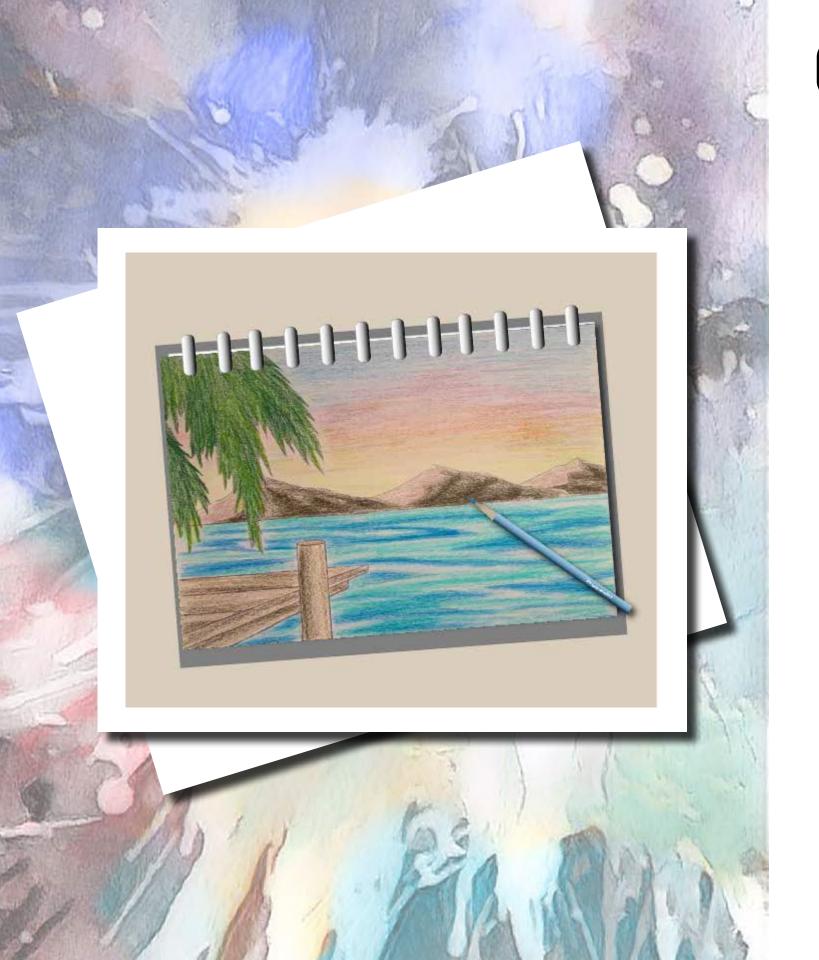
The most inescapable part of the human condition is aging. One of the most challenging periods of growth involves the transformation of a person from a child into an adult. Every human being descended from Adam and Eve, has had to pass through the crucible known as adolescence. While some seem to thrive during this period of life, others can have an extremely difficult and overwhelming experience.

Inaccurate self-image, peer pressure, lack of acceptance, confusion, awkwardness, bullying, perceived lack of agency, high sensitivity, and high expectations are all stress factors that consistently plague this age group to the point of feeling anxiety and depression. In our modern world. The around-the-world reach of technology can be both a blessing and a curse. Teens can now

be influenced by individuals with no in person accountability. Mistakes that might have only been known locally before, can now be published globally. This can create a magnified world of failure from which teens feel they cannot escape. Some teens turn to self-destructive activities for relief, while others give up altogether. Art is a unique opportunity for adolescents to create and find relief from stress. Adolescents can be strengthened and renewed by the emotional, physical, and spiritual benefits of art. For the Christian adolescent, art can be an amazing opportunity to experience a unique connection to God. The realization that they were made in the image of their Creator, helps them know who they are.

"The aim of art is to represent not the outward appearance of things, but their inward significance."

-Aristotle



Chapter 1

The Problem

Adolescence can be challenging, even under the best of circumstances, and for teens who are made to feel unsuccessful, life becomes overwhelming. Many adolescents have little adult guidance and turn to their peer groups for support. The blessing and curse of the Internet is that it amplifies adolescent strengths and shortcomings on a global level. Our society puts modern adolescents under heavy pressure to succeed in the areas of academics, sports, social events and social media. The stress to meet expectations can take a physical and emotional toll on adolescents causing them to feel anxiety and depression. Teens have been known to turn to drugs, sex, and violence to ease feelings of anxiety, while the ensuing depression can result in

suicide. There is a need for teens to find a healthy release for the tension they feel so that they can center themselves physically as well as their minds and emotions.

The Purpose

The purpose of this thesis is to show that art can be beneficial for easing chronic anxiety and depression in adolescents. It will also show that art has a unique effect on the body, mind and spirit. Art represents a unique opportunity for easing stress, energizing passion, captivating engagement, broadening perspectives, generating positivity, stimulating positive brain function and achieving spiritual mindfulness. It also points teens to their Creator. Christian and non-Christian teens have the opportunity to come closer to knowing God through experiencing the opportunity to be creative as God was and is creative.



Art has become a clinically respected means to treat mental and physical stressors. art in therapy, is used for examining and treating serious psychological disorders. It can only be practiced by a licensed art aherapist.

Art as therapy is a more informal, creative approach to achieving greater psychological, spiritual, emotional and physical well-being. It can be practiced in a classroom setting, at home or in another environment of choice. For the beginning, intermediate or advance artist, creating art can provide both an opportunity and an escape. It can heal, inspire, encourage, and foster a process of growth that is beneficial for teens contending with situations that produce anxiety and depression. The power of unleashing personal creativity has been underestimated by the academic community from the beginning of formal education, but recent clinical research studies are

changing academic perceptions.

Art provides an opportunity for adolescents to realize not only their own potential but also their worth within a social construct. Art is neither play time nor a period of child care. It can be a means of building confidence and creative ability. Art as a means of therapy will be properly explained so that the beneficial potential it has for healing can be clearly seen. Art has a powerful effect on adolescent emotions, brain activity and spiritual growth. It will be shown that, when properly directed, art can be an effective means to combat general anxiety and depression that can cause pain and suffering to some adolescents.

"A painter should begin every canvas with a wash of black, because all things in nature are dark except where exposed by the light."

-Leonardo da Vinci

It existed before humanity in the person of God, and our ability to make art is a direct result of being created in the image of God. As a gift from God, it needs to be used wisely. God is the source of all comfort; He provides us the means to ease stress and counter anxious feelings that can also lead to feelings of depression. His gift of art can be used as therapy to bring comfort and peace to those who are suffering. It has historically been, and continues to be, a means for adolescents to center themselves, find their voice and express their feelings.

Personal Motivations

Art has always been a constant in my life. One of my earliest memories involves drawing an unauthorized abstract mural on a wall in the hallway of my childhood home.

It was not much to look at, but my

mom, who is an artist as well, kept the mural on the wall. She could have washed it off, but by keeping it, she validated my expression as an artist at an early age. I felt fortunate to be born to parents who encouraged me to pursue my passions and talents. As I matured, my art ability was further validated and encouraged by my teachers. In college, art became a serious pursuit, and I began to see past the reproduction of objects to an organization of design that could be more than the sum of the parts. As I began to find my voice, I began to realize the power of the medium caleed art. I have been blessed since then, to pursue a profession that has allowed me to inspire in my students the same love for art that I experienced as a child. I believe that art has given me the opportunity to know God more deeply. It is my desire to not only pass on my personal passion for art but also enhance the lives of as many



adolescents as I can by showing them the value of artistic expression and a connection to their Creator. As an adult, art has been a source of joy, support, and a personal means for coping with the constant demands and expectations that have been placed on me both as a teacher and a Christian role model. It is both challenging and relaxing. In addition, it has a quality to expand my vision and stimulate my thinking as nothing else does. I know how powerful art making can be because I have experienced it for myself. My class is designed to give students the same tension-relieving experience.

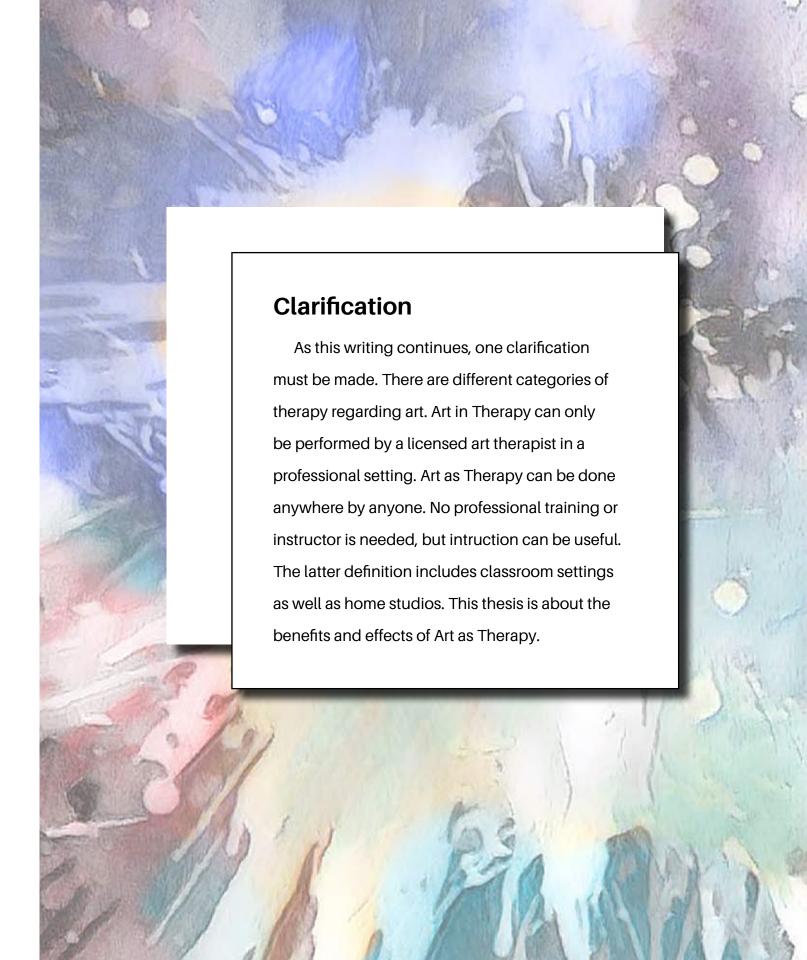
Significance of the Research

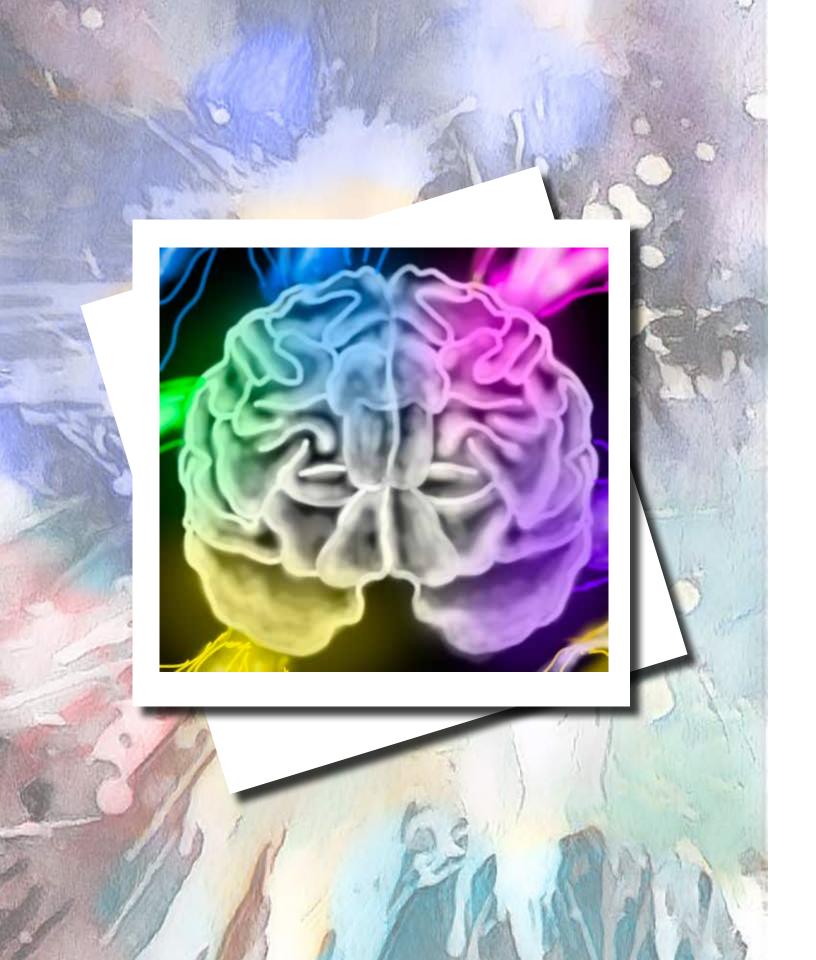
The information that I have researched has confirmed my personal experience. I have also found evidence, provided by data

from formal scientific studies, that shows physical proof of the psychological effects of art making. It is possible with modern technology to see the changes and development that occurs when someone is encouraged to be creative. The greatest benefit is to the person creating the art work. In addition to giving a feeling of accomplishment, art improves brain function. Other people besides the artist benefit as well. The need for creativity stretches across every profession. It enables innovation in engineering and beauty in architecture. It further shows the importance of art as an enhancement to other academic pursuits as it increases brain function, expands the capacity for greater achievement, greater cognitive skill and increased creative abilities.

"Art washes from within the soul, the everyday dust of life."

-Pablo Picasso





Chapter 2

Research

Research Problem

Adolescents can feel locked into their current situation in a world where they have little control over their present circumstances. The ensuing anxiety and depression this can cause may skew the way they view themselves and their place within the modern global community.

Purpose Statement

Solution and Expected Outcome

My research interest lies towards understanding the factors that contribute to adolescent anxiety and depression. I will study the relationship between art and the potential it has to help process and

express emotions. When teens are provided with an opportunity to develop their visual voice, they are able to order and communicate their thoughts. It creates a means that helps them understand their present and provides hope for their future. Art provides an opportunity to make the abstract concrete. It provides a means of self-expression whereby adolescents can find their voice and feel they are empowered.

Research Questions

- 1. How are adolescents at risk?
- 2. What is involved in Art Therapy
- 3. How is Art in Therapy different from Art as Therapy?
- 4. How can Art promote peace, strength and healing?
- 5. How can this process be framed for Christian adolescents?



Literature Review

Adolescents in Crisis

Art in Therapy: History and Purpose

Art as Therapy: History and Purpose

Art Therapy in Art Education

Soul Care in Art Therapy

Art Therapy and Adolescents

Art can be an effective therapy for adolescents experiencing anxiety and depression. In order to understand Art as therapy, it is important to understand art in therapy. Art in therapy, refers to art done in a counseling setting with a licensed therapist. Art as therapy has a more casual structure and can achieve some of the results of formal therapy. It can be part of a classroom curriculum or it can be done at home in a group or solely for the benefit of an individual. It will further illustrate the controversies regarding art therapy and art education. Most importantly biblical integration will be highlighted to show how the transformative power of the gospel can be combined with Art for the enrichment of Christian adolescents. Art as therapy creates a unique opportunity to connect with our creator when approached from a Biblical perspective.

Adolescents in Crisis

Adolescence is a multi-faceted growth pattern that takes the form of a gradual transformation of a person from being a child to an adult spanning several years and varies from person to person. (Leobrera) Anything that causes change in your life causes stress. Dr. Hans Selve, who is considered the father of stress research, noted that the body has a similar set of responses to many different kinds of trauma or demands. Physical and psychological stresses trigger the same kinds of responses. (Hyde and Forsyth) The tasks of coping with the physical changes of puberty, of separating from the family and becoming independent, of developing intimate relationships with others, especially persons of the opposite sex, and of discovering one's capacities or talents for work may all lead the adolescent into an

unhappy, sad demoralized state of mind as the unknown is faced. (Riley)

Mental disorders among children are described as serious changes in the way children typically learn, behave, or handle their emotions, causing distress and problems getting through the day. (Perou) The feelings of powerlessness and stress that accompany anxiety can drain a person emotionally causing them to experience depression. (Kellemen)

Depression can reveal itself
in insomnia and an inability to
concentrate on anything. Effort
appears futile because it seems that
nothing can really help or provide
meaning. (Allender)

Adolescent mental health issues are on the rise across the country.

Adolescents are scared and confused about events they cannot control, and some feel they have nowhere to turn.

The current US statistics show a crisis situation begging for a solution.



- 38% of female teens have an anxiety disorder.
- 26.1% of male teens have an anxiety disorder.
- Approximately 11% of American children have attention-deficit hyperactivity disorder.
- Recent data shows suicide as the second leading cause of death among teens ages 15 to 19.
- The Centers for Disease Control reported the suicide rate among teens was 10.6 deaths for every 100,000 teens. (Adolescent Wellness Academy)
- 9.4% of children aged 2-17 years (approximately 6.1 million) have received an ADHD diagnosis.
- 7.4% of children aged 3-17 years

 (approximately 4.5 million) have a
 diagnosed behavior problem.
- 7.1% of children aged 3-17 years
 (approximately 4.4 million) have
 diagnosed anxiety.
- 3.2% of children aged 3-17 years
 (approximately 1.9 million) have

- diagnosed depression.
- About 3 in 4 children aged 3-17
 years with depression also have
 anxiety (73.8%)
 The situation is dire and the crisis
 is clear. (Ghandour)

Art in Therapy History and Purpose

The history of art therapy focuses on the precursory and continuing trends that have shaped theory and practice and the literature that reflects this development.

One of the earliest designated 'art therapists' to work primarily with children was American pioneer Edith Kramer in the 1940's. She considered that it was the art activity itself that had inherent healing properties; that an object could emerge out of destructive and aggressive feelings, which would symbolize those feelings and thus prevent them

from being acted out. (Waller) Like other forms of psychotherapy and counseling, Art Therapy is used to encourage personal growth and has been employed in a wide variety of settings with children, adults, families, and groups. It is an approach that can help individuals of all ages create meaning and achieve insight, find relief from overwhelming emotions or trauma, resolve conflicts and problems, enrich daily life, and achieve an increased sense of wellbeing. (Malchiodi)

Art therapists are trained in visual art and clinical mental health practices to work with children, adolescents, and adults in a variety of settings, including community mental health centers, in-patient hospitals, day treatment programs, schools, nursing homes, prisons, medical facilities, and studio settings. (Rappaport)

Looking at art can have a profound effect on the viewer. Galleries and museums house objects and artifacts

of potential benefit to the practice of psycho-dynamic psychotherapy. (Walters)

In all forms of art therapy, the client is encouraged to explore their feelings using art materials, usually paper and paint but also collage, clay and sculpture. This can be done individually or in small groups. How the materials are used by the client can also contribute to the meaning of the work. The art materials themselves (their very substance) can evoke feelings in the person using them. It is possible that 'magical' powers can be invested in the image or object, and that art works can take on great symbolic significance for the maker of the image or object. Therefore, how the image is modified, stored, displayed or destroyed can become relevant. (Hogan)

"This world is but a canvas to our imagination".
-Henry David Thoreau



Art as Therapy History and Purpose

Although the goal may be different, practice of art as therapy outside a therapist's office is similar in practice. In an office, a classroom, or a non-formal setting, art can be an effective means for releasing stress.

Art therapy is based on the idea that the creative process of art making is healing and lifeenhancing and is a form of nonverbal communication of thoughts and feelings that must be resolved in order to achieve an increased sense of well-being. (Malchiodi) In the past 20 years, there has been increasing interest in arts for health initiatives, where engagement in the creative process per se is seen to have therapeutic value. The importance of creative expression to healthy human development and recovery from mental distress is well established across international cultures. There

is a range of ways that art can make a contribution to promoting positive mental health. It can be a self-initiated activity providing a form of self-expression; it can be used to improve care environments; it can change the way society views mental illness; and can also provide service users with a voice. (Heenan)

The encouragement to try to be creative has a huge impact on adolescents. Creativity can be increased with patience and practice. This increase in ability carries over to other areas. The integration of varied materials and man-made objects into the child's work, helps break down the notion that one can either "do or not do art."

This idea of talent being an absolute essential to anyone wishing to create a masterpiece in a formal art class must be overcome. Of course, the child who has a natural talent for art will use it and practice. This idea is illustrated in the making of often

non-representational pictures and objects by untrained artists.

(Palmer)

Creativity is one of the major components of art. This skill is additionally considered a primary component of drawing, painting, photography, etc. At the same time, many of the studies that we will review also directly involve the making or consideration of "art." In general, approaches can be split into four main areas: creative persons, products, process, and environments. Expanding one's creativity allows them to expand their worldview and see not only what is, but also what can be. (Glăveanu)

After all, art is not merely an expression of talent, expertise, and creativity. It is limited and constrained by genetic and biological inheritance, by what the mind is occupied with around the time of production, and by the artist's cultural context, education, training, and social affiliation. All else

being equal, art depicts that artist's era, what is important, talked about, discussed, believed and known by society. (Zaidel)

Artistic endeavors involve
some very complex processes
of identification, imaginative
interpretation, integration and
reorganization of the elements of
existence. Through encounters with
external materials and internal image
themes, adolescents render much
more than pictures. (Moon)

Some authors have argued that there are distinct similarities between children who are diagnosed with ADHD and those who are creative.

Additionally, many creative and ADHD children are reported to suffer from anxiety, depression, or bipolar disorder. Considering the many similarities between ADHD and creativity the next logical step is to look at the nature of the relationship between these two phenomena.

(Kaufman)



Art Therapy in Art Education

Viktor Lowenfeld, coined the term
"art education therapy" in the book,
Therapeutic Aspects of Art Education.
Lowenfeld saw the art process as
possessing a power and profundity
beyond the mere acquisition of
skills or techniques. Furthermore,
this theory applied to all children
regardless of their handicapping
condition or emotional state. The goal
of his philosophy was nothing less
than developing every child's creative
potential by combining an academic
and therapeutic approach to art
education. (Yoon)

Successful art education
involves understanding not only
adolescents but also how their brains
are constructed in relation to art.
The increasing understanding of
the brain's hemispheres and their
interactions has contributed to the
understanding of mental images and

art making. In the past, it was believed that the right and the left brain generally had two different functions; the right brain was the center of intuition and creativity, while the left brain was thought to be engaged in logical thought and language.

Some claimed art therapy's value was due to its ability to tap right-brain functions, observing that art making is a "right- brained" activity. In reality, the brain's left hemisphere (where language is located) is also involved in making art. (Malchiodi)

It is apparent to most art and design educators, that the arts are sorely undervalued in society. What is often overlooked in today's landscape is the unvarying value of the arts can mean for individual learners at different points in their education. Art is a visual expression of thought and feeling, but it is not just self-expression. Nor is it merely an amusing hobby, a craft, or way to pass time on rainy days.

In reality, Art expresses far more than just pictures, taste, personal sense or significance—it generates new ideas and reinterprets status quo perceptions about identity, lived experience, religious and political beliefs, cultural practices, material properties, ancestral and social relationships, and even the natural affinity an artist or designer possesses for particular creative practices or techniques. (Rollings)

Using Art as Therapy means tapping into the natural creativity each person possesses. Creativity is a complex interplay of neurophysiological, cognitive, and motivational processes. In the domain of positive psychology, it is defined as the strength of producing an original thought or inquiry that is adaptive and appropriate to the circumstance. Creativity involves cognitive fluency, flexibility, and divergent thinking which generates novel and culturally relevant

ideas, sometimes accompanied by moments of insight and exclamations of "Eureka!" (Wilkinson)

Teens are creative. Developing creativity is the key to increasing resilience in adolescents. Broadly defined, resilience can be understood as "multi-dimensional characteristics and processes of time and contextspecific resistance, leading to positive adaptation in the face of adversity". Since its inception, the practice of art therapy has been shown to promote resilience in children. As acclaimed child art therapist Judith Rubin wrote, "Creating helps children define themselves and their experiences, through forming unformed media, developing their own themes and styles, and discovering and delineating their identities". (Berberian)

Through the fundamental qualities of art—the ease of non-linguistic expression along with



the richness of pictorial narrative,
the promotion of mastery and
containment, and the encouragement
of exploration and imagination—
young people are given an
opportunity to freely articulate inner
sensations, thoughts, perceptions,
and needs with uninhibited depth
and authenticity. (Moon)

Students have been aided by the capacity of art making to restore healthy functioning and provide mastery amidst feelings of helplessness. Art therapy presents an effective means to address these issues since students are offered an outlet to channel their anxiety and aggression into the art making process. (Friere) Their perceptions, and needs are expressed with depth and authenticity. (Moon)

For children confronted by trauma and loss, art therapy has repeatedly showcased the restorative power of creativity. The true texture, color, and drama of

a child's lived experience involve actively animating and creating their environment with their imagination.

The power of art as a language for young people rests in its dynamic, communicative potential and its accessibility across the span of development. (Berberian)

Biblical Integration in Art Therapy

Therapy and art can be framed by a Biblical worldview. In Biblical counseling, we must weave together truth and love — comprehensive biblical wisdom and compassionate Christlike care. We believe that wise counseling centers on Jesus Christ — His sinless life, death on the cross, burial, resurrection, present reign, and promised return. Through the Gospel, God reveals the depths of sin, the scope of suffering, and the breadth, length, height, and depth of the riches of grace. (Kellemen)

The presence of disruptive emotions that feel irrational or out of control is not necessarily a sign of a disease, sin or trauma. Instead, it may be the signal that the heart is struggling with God. Therefore, we must view the ups and downs of our emotional life not as a problem to be resolved, but as a cry to be heard. (Allender) Knowing scripture is the key to knowing Jesus. When adolescents are able to deepen their relationship with Christ, they are able to increase the power available to them to deal with fear, frustration and stress. When anxiety strikes, we focus so much on the situation and our feelings that we lose our focus on God or accept a skewed view of him. The Apostle Peter said, "Cast all your anxiety on him. Why? Because he cares for you." (1 Peter 5:7) When we see God as our God of peace, then we can experience the peace of God that guards our hearts and minds.

(Kellemen)

Art Therapy and Adolescents

Creative expression becomes a natural choice for the adolescent, stimulated by tendencies toward magical thinking and narcissism, while trying to balance the challenging necessity for communicating strong emotions, thoughts, and experiences often fueled by isolation, withdrawn behavior, and unresolved confusion about the self, others, and the surrounding environment. The outlet of creative expression and art making becomes a safe, nonthreatening means to release and attempt to understand these needs, as well as to cope with the difficult developmental milestones and stresses that adolescence can display. (Malchiodi) Adolescents have different ways of expressing their creativity and their interest in art. One way is that they



enter the therapeutic space with excitement, wholeheartedness, and a sense of relief at finally having found someone who "gets" their language. These teens can't wait to move into the action of the arts where they can express themselves in a way that feels safe, fun, and meaningful. The second way is that they just stare blankly and say they are not creative in any way, nor are they interested. The third way is that some teens are curious about the arts, but have no idea how they might use them in a therapy setting. Any way it goes, there are possibilities and openings. (Richardson)

When working with grieving or traumatized adolescents, there are unique developmental considerations to keep in mind in addition to the ones mentioned previously. It can be common for the adolescent to reexamine, critique, or investigate his or her own and others' belief systems and worldviews associated with trauma and loss

experiences; thoughts about how the experience may impact the adolescent's future are also normal. Adolescents' emotional experiences can be very challenging internally because emotions connected to embarrassment, anger, worry, and loneliness can be manifested as "I'm okay," apathy, withdrawal, or defensiveness. Making art and engaging in the creative process is a sensory-based approach to safely support, promote and channel emotional expression of the teen's bottled up feelings and to set the stage to make sense of its meaning. (Malchiodi) The Researchers with the Adolescent Brain Cognitive Development Study (ABCD Study) are studying the teen brain to learn more about how it grows and functions including the connection between creating art and brain development. Dr. Hina Inam, who is the first female heart surgery resident at the Aga Khan University in Karachi,

Pakistan, describes how her childhood love of drawing—and attending the International Child Art Foundation's (ICAF) World Children's Festival in 1999—"plays an important role in who I am today." She explains: "Art has ... taught me patience, made me focus, and made me passionate. All these qualities have helped me grow in my career, too. Now my canvas is the human heart, and stitches are my paints."(NIDA)

An adolescent's communication can include intense and exaggerated messages to shock or impulsively express strong emotions. In addition to these behaviors and expression, this population struggles to leave childhood behind and hesitantly moves toward adulthood in today's complex world. Underneath is a young person who is attempting to make sense of identity and experiences, where and how to fit into the world, and a secret longing for attachment and structure. The

influence of puberty, peers, the school environment, society, media, and youth culture also contribute to the stress and associated pressures faced by the adolescent. (Malichodi)

As adolescents mature, they develop the ability to understand abstract concepts and to form judgments. The desire to find their individual selves is processed through stages— an overly intensive absorption with themselves, exaggerated dependency on peers, and withdrawal from parental influences. Art as an expressive language provides an entrée into a relationship with teenagers by tapping into their creativity and offering a form of communication that is nonthreatening and over which the adolescent has control. The art allows clients to distance themselves from their own dilemma and, in that manner, work with the therapist toward solutions to a problem.



Using art in therapy provides a pleasure factor that is not what teens expect to encounter, and it stimulates their desire to be expressive. (Riley)

Creative arts therapy can help individuals understand and resolve their psychological struggles and emotional states and to resolve them to restore harmony through creative activities. Creative art therapy offers various expressive materials and related methods that focus on supporting subjects to engage freely in artistic activities. Engaging in freely artistic activities allows subjects to express their suppressed emotions and eases their tensions. (Kim and Ki)

Concepts such as "natural', and the "inner" world, which may be discovered through exposure to therapeutic experiences, and self-actualization, becoming who one is meant to be and blaming society for all ills, are popular ones in the culture of counselling and art therapy. Art for a child can and does become

different things at different times.

I find it impossible to characterize the process, even with one human being or in one setting, as being any one thing alone or always. Rather, it seems that for anyone, the art activity over time ranges from being central and integrative to peripheral and adjunctive and back again, serving many different possible functions.

(Waller)

Art is not intimidating for most

adolescents. Art therapy can be effective for adolescents who usually see it as a nonthreatening form of treatment. The art that the adolescent produces can help the therapist gain some idea of the youth's concerns and life circumstances, especially those situations that are too risky to reveal or too personally embarrassing to relate. This awareness better equips the therapist in efforts to protect and support the adolescent during this turbulent time of life. (Riley)

Background

The arts play a significant role in modern health sciences, and they can be used to skillfully interpret emotions, helping one better understand oneself and others. The arts and creative expression have been shown to promote health, selfworth, accomplishment, and social engagement. Creative expression is characterized by active participation in the process of bringing something new into existence: the production or performance of art or the creation of an original idea, perspective or process. (Vaartio-Rajalin)

"I think Art is unquestionably one of the purest highest elements in human happiness. It trains the mind through the eye, and the eye through the mind. As the sun colors flowers, so does art color life."

– John Lubbock

Knowledge Gap

Research Needed

In order to complete this project
there are a few more elements
that need further research. Greater
investigation needs to be done
into adolescent risk factors and the
effect art has mitigating those risks.
Deeper exploration is needed to
better correlate how secular therapy
techniques can be applied to benefit
Christian adolescents from a Biblical
perspective.

More research is needed for information on the effects of Group Art Therapy. While most research is conducted in groups, the results only quantify indivdual accomplishment rather than focusing on a measured result for a team. That could be quite significant in education beacuse this type of research could translate into group Art as Therapy projects for classroom use.



Stakeholders

Individual Students

The art students who participate would be the primary beneficiaries of any therapy that would be administered. By ripple effect, siblings, parents, and extended family members could all benefit.

Adolescent groups

Classes benefit as a whole when individual students are helped and more learning can take place in a shorter amount of time. More material can be covered and stduents standardized test scores could be higher. Teachers also gain since they need to spend less energy on discipline. The school in general profits due to increased moral and school spirit. More students might be willing to volunteer for community service now that adolescents are more self-actualized.

Personal Contacts

Once students have learned how to follow therapy practices, they can share them with others in a variety of settings including peer teaching in schools, group meetings in clubs, student government functions and a variety of different volunteer or paid opportunities. Each will become a stronger person with the ability to mentor others on a peer level.

Research Implications

Student interviews can show
how art has affected them. They
can also display work that illustrates
their feelings regarding their own
"therapy sessions". The narratives
will form a larger narrative to show
the effectiveness of Art as Therapy.
All areas of benefit are covered. The
compilation of all these reflections
can be recorded and the data
reviewed to learn from the results.

Research Methods

Primary Research

The research for this project began with studies of cases documented by seasoned professionals in the field of Art Therapy. It also included differentiation involving classroom art creation verses clinical treatment and interpretation using art.

Case Studies

A cross section of student levels could be studied to compile a set of different aspects of the art process designed to bring stress relief and expand achievement. Individual levels can be examined. (Ex. Artists working on Studio/AP level, in addition to advanced and beginner levels.) Each student level can be referenced to represent a case study.

Visual Assessment

Several levels of ability will be considered and addressed including beginners, intermediate and advanced artists. Art making will be evaluated based on the effectiveness of the work to convet the message to the target audience. Each piece will also further represent how art can affect artists on a physical, emotional, and spiritual level. All levels of ability in art making can be examined and judged to determine their effectiveness toward the therapeutic goal of easing general anxiety and depression in adolescents.

"Art is a human activity
having for its purpose the
transmission to others of the
highest and best feelings to
which men have risen."

Leo Tolstoy



Project Summary

Adolescents are increasingly at risk in our modern world. Social media can magnify existing problems. Parents whose lives are dominated by careers can seem distant. Expectations for high-achieving adolescents have never been higher. Stress caused by bullying, lack of control, emotional neglect, and unrealistic expectations has become a raging issue. Stress leads to anxiety and anxiety in turn, causes depression. As teens try to find ways to ease their stress, they may turn to violence, drugs, dangerous behavior or self-harm.

Examples will be divided by levels of experience including beginner, intermediate and advanced artists.

Evidence will show that art has a positive effect on brain function as well as a healing emotional effect.

Exploration will include both the inner

and outer effects of Art as Therapy on the art maker. Art as Therapy explores the possibility of a healthy outlet for adolescent stress. It further explores the documentation that art is more than just a hobby. It contends that it can be a healing process as well. By providing a safe haven of creativity, stimulating imagination, and bolstering self-esteem, art can be a tool to strengthen adolescents and give them the courage to face an increasingly hostile world with confidence. In addition, for the Christian teen, art can be a means of achieving a deeper relationship with God. God is the ultimate creative being and the source of our life, breath and strength. Art provides a way to connect with God that no other outlet can. The results will show that art in addition to being a means of self-discovery and expression can also be of benefit to ease both anxiety and depression. It can heal both by process as well as result.

Case #1

Art as Therapy and the Beginner Level Student

Who conducted the research?

Girija Kaimal, professor at Drexel
University and a researcher in art
therapy, was the primary researcher.

What was the purpose of the research?

The purpose is to determine the effect of creative art making on emotional wellness.

How might the analysis inform your problem/solution?

Since my thesis regards anxiety and depression, it is relevant to study the beginning art student to see if ability affects the desired results.

5 Key Questions

1. How can an adolescent begin to use art to achieve emotional wellness?

Just let those "lines, shapes and colors translate your emotional experience into something visual," she says. "Use the feelings that you feel in your body, your memories.

Because words don't often get it."

(Kaimel)

2. What type of art is effective to reduce anxiety and depression?

Any type of visual creative expression: drawing, painting, collaging, sculpting clay, writing poetry, cake decorating, knitting, scrap-booking — the sky's the limit. Anything that engages your creative mind — the ability to make connections between unrelated things and imagine new ways to communicate — is good for you. (Kaimal)



3. Are all art mediums equally effective in reducing stress?

Kaimal says modeling clay, for example, is wonderful to play around with. "It engages both your hands and many parts of your brain in sensory experiences," she says.

And one 2012 study published in Journal of the American Art Therapy Association showed that coloring inside a mandala reduces anxiety to a greater degree compared to coloring in a straight plaid design or a plain sheet of paper.

4. Does art have a physical effect on stress?

Kaimal and a group of researchers measured cortisol levels of 39 healthy adults. Cortisol is a hormone that helps the body respond to stress.

They found that 45 minutes of creating art in a studio setting with an art therapist significant lowered cortisol levels.

5. Is art skill level a major factor for helping to cope with depression?

Most studies state that personal art skill level is not a factor regarding the ability of art to aleviate depression. Artists tend to work at or above their own level. "Art has the ability to flex our imaginations," says Kaimal. She has a theory that art-making helps us navigate problems that might arise in the future. The brain uses "information to make predictions about we might do next — and more importantly what we need to do next to survive and thrive," says Kaimal. When you make art, you're making a series of decisions — what kind of drawing utensil to use, what color, how to translate what you're seeing onto the paper. Through creating art, says Kaimal, the student is able to imagine possibilities and see a future beyond the present moment in which he or she was despairing and depressed. (Kaimel)

Case Study Report # 1

This case study was originated by Girija Kaimal, Associate Professor in the Ph.D. program in Creative Arts Therapies at the Drexel University College of Nursing and Health Professions in Philadelphia, PA., and a researcher in art therapy. It is designed to learn more about how art as therapy can help adolescents through the anxiety and depression that can occur as a result of common factors that can accompany growing into an adult. It covers the benefit of art as therapy for beginning art students who have little to no previous art making experience. Research called Adaptive Response Theory (ART), is founded on constructs from evolutionary biology and human development. The theory is based on human responses to threats to well-being

(bio-physiological and psycho-social-spiritual), as well as, how art making and imaginative processes align with the current conceptualization of the brain as a predictive machine. The project was originated to study the effect of art making as a means of achieving social wellness. (Kaimal)

"Art's ability to flex our imaginations may be one of the reasons why we've been making art since we were cave-dwellers. It might serve an evolutionary purpose. She has a theory that art-making helps us navigate problems that might arise in the future. Her theory builds off of an idea developed in the last few years — that our brain is a predictive machine. The brain uses information to make predictions about we might do next — and more importantly what we need to do next to survive and thrive," says Kaimal. (Gharib) Each time you make art, the creative self can be reborn, brand new. Each day



offers new ways of being, feeling, and doing. Each day we can recreate ourselves. The process is similar to the grass that sprouts up between the cracks in the cement: with the creative-healing force, you can learn to grow new shoots and harness new forms, ideas, visions, and realities. The possibilities of expression are infinite, and this frees you to heal at your core. (Samuels and Rockwood)

"Creativity in and of itself is important for remaining healthy, remaining connected to yourself and connected to the world," says Christianne Strang, a professor of neuroscience at the University of Alabama Birmingham and the former president of the American Art Therapy Association. (Gharib)

When art is expressed from the deepest levels of our being, profound healing occurs. Just as you may not consider yourself an artist, you may not think of yourself as a healer,

either. You may have never used this powerful inner part of yourself consciously. But just as everyone is an artist, we know that everyone is a healer. (Samuels)

Visual self-expression helps with

attention and improves health and well-being. Participants improved in their self-perceptions of problem solving and having good ideas. Participants found the drawing tasks relaxing but wanted more time per task. Further study with varied art media and longer time on tasks are needed to determine potential interactions between participants' backgrounds and reward activation. (Kaimal)

Adolescents are at risk for dealing with elevated levels of anxiety. This study proves the supposition that Art as therapy is effective for curbing anxiety and depression. Research shows that this pilot study is the first to examine brain activation via functional near-infrared spectroscopy

(fNIRS) during three distinct drawing tasks—coloring, doodling, and free drawing. All three visual self-expression tasks activated the medial pre-frontal cortex, indicating potential clinical applications of reward perception through art making.

Overall, the three visual arts tasks resulted in significant activation of the medial pre-frontal cortex compared to the rest conditions. (Kaimal et al.)

The research highlights the findings that art is relaxing and helps improve cognitive function. The increase in brain function allows adolescents to see the present and future more clearly. This is evidence that the effect of art is not just a perception, but a measurable outcome. By providing a means of relaxation, it shows that art is a proven means of coping with anxiety. The increase it causes in cognitive function creates an advantage for increased reasoning regarding present and future situations.

Adolescence can also be a time when pyschological condidtions have an early onset. Art as therapy is not meant to treat serious adolescent disorders. Teens with severe symptoms should be refered to clinicians for professional treatment. Adolescent stress can cause conditions which will only become known later in adulthood. Art can be a means of preventing some of these conditions. Art as therapy helps common adolescent stress that can trigger other disorders. Art therapy is a form of projective technique that uses the creative process of art making to improve and enhance the physical, mental and emotional well being of individuals of all ages. (Tripathi)

Creating art can even make your child a kinder friend. Neurologists have found that creating art at least once a week can increase introspection and empathy because the act strengthens the brain's default



mode network, regions that are active when thinking about others and your own actions. Art can also help kids be kinder to themselves. Making original art instead of, say, coloring in a coloring book might have benefits as well. Studies have shown that free drawing keeps people more focused on the activity than directed art, and significantly improves creative thinking skills. (Kaimil)

Drexel University study found that making art can significantly reduce stress-related hormones in your body. Although the researchers from Drexel's College of Nursing and Health Professions believed that past experience in creating art might amplify the activity's stress-reducing effects, their study found that everyone seems to benefit equally. "Biomarkers" are biological indicators (like hormones) that can be used to measure conditions in the body, such as stress. Cortisol was one such the hormone measured in the study

through saliva samples. The higher a person's cortisol level, the more stressed a person is likely to be. The researchers found that 75 percent of the participants' cortisol levels lowered during their 45 minutes of making art. And while there was some variation in how much cortisol levels lowered, there was no correlation between past art experiences and lower levels. (Otto)

There are a small number of studies indicating reduced stress resulting from visual art making.

Artistic expression appears to lower stress in various health settings for both patients and family caregivers. Results indicate that a brief experience of art making produced physiological changes in most participants, indicating that art making can lower cortisol levels regardless of prior experience with art, media type, or demographics.

(Kaimal et al.)

The 3 Visual Artifacts

How might the analysis inform your problem/solution?

It creates a window into possible solutions for beginning artists.



Figure 1-Tamara C.-"Mountain landscape"; Rendered in pencil



Figure 2- Amy F.- "Path in the Trees"; Rendered in colored pencils



Figure 3- Amber T.- "Whale Tail"; Rendered in acrylic paint.

5 Key Question

1. How does this help a beginner?

It gives the artist encouragement and jump-starts adolescent creativity.

2. What are the important points?

The points that provide inspiration for the artists and show how to enjoy their art journey.

3. How do the colors play a role?

The colors bring out the subject matter and breathe life into each beginner art piece.

4. Are beginner artist's benefitting as well?

The artists are benefitting from relaxation and personal achievement

5. Are these effective illustrations?

The illustrations are effective since they convey learning and emotion.



Visual Analysis Case # 1

One of the scenes that beginner artists like to draw the most is a landscape. This represents the world we live in and causes the novice artst to reflect on their interpretation of what they see. It is a great way for them to develop their visual voice. Adolescents need to find a positive way to express themselves. Art provides this opportunity through many different mediums. The three mediums represented here are pencil., colored pencils and paint.

The images chosen are landscape pictures, representing the artwork of three different artists. Each is done in a different medium to illustrate the value of each one. Both value and color are represented within the examples. Each one provides an opportunity for the artist to relieve anxiety by creating a place of peace

as an art landscape, while also enabling an opportunity for them to hone and increase their skills.

"Mountain Landscape"-Tamara C.

The first landscape shows a resort with a backdrop of trees and mountains. The mountains dwarf the resort even though they are set behind it, suggesting their splendor and majesty. By using scale to magnify the mountains, the artist shows her love and respect for this amazing landscape.

In this drawing, the artist shows her growing range and understanding of perspective. She uses perspective, scale and shading to enhance her vision. The trees reflect a wintry season and allow the viewer to see the usually covered branches of the tree. Her vision to show the tree underneath, shows her desire to know more about the structure of the tree.

This piece was an opportunity for the artist to relax and challange herself at the same time. The elements combined in this piece create a worthy difficulty level for any beginner. The style used creates an opportunity for relaxation.

While the mountains, resort and trees represent the challenge the artist succeeded in conquoring, blending and shading them with pencil provides a very relaxing activity.

"Path Through the Trees"-Amy F.

The second landscape is much more focused on perspective. Like most landscapes, it focuses on one point perspective. The artist uses the point to great effect to create her path through the trees. She even emphasizes the ruts in the lane by also lining them up to the vanishing point. The trees, which are similar in style and grow along the edge of the

road, converge at the same point in the distance.

The unique shape of the trees shows her emerging creativity and furthers her journey to develop her visual voice. She remains consistant with her scale and style.

She also has found a way to relax and challenge herself at the same time. Coloring is known to be relaxing. While she was able to relax as she worked, she also uses her color stokes to accent and create a texture for her trees that maintains the viewers interest. The mountains in the back continue to draw the eye as she successfully layers her elements. By using a common background, midgorund, to foreground template, she creates an illusion of depth culminating with her mountain-view sunset seen through the clouds.

"Art is not what you see, but what you make others see." -Edgar Degas



Whale Tail in the Ocean-Amber T.

The third piece, is a departure from the first two. There are no mountains or trees. There is only ocean with a solitary tail belonging to a whale, sticking up above sea level.

She begins with her horizon line to separate the sky from the sea and establish eye level. She effectively uses the colors of the sky to portray the sunset. Her addition of blue at the top reflects symmetrically onto the water below. She uses the clouds to reflect the colors of the sunset.

She effectively uses a blue again in shades to outline the whale's tail and show detail.

Her subject matter is a calm sea at sunset which is a relaxing peaceful scene. The water dripping from the whale's tail adds to the texture of the piece. Throughout her piece, she consistently blends her colors which creates yet another opportunity for the mind to relax.

The work represented in the case study reflects beginning artistic talent. Each of these artists created a place of peace as they imaged their landscapes. Each benefited from the effects of art as a means to relax, focus and recharge. As a result, each artist was able to finish each piece feeling refreshed and renewed. The opportunity to escape daily pressures and focus on a place of peace enabled them to gain fresh perspective toward their lives and develop a positive outlook. Meeting and exceeding the challenges of these projects gave them increased confidence. They were energized to take on new challenges in art as well

"Drawing is the honesty of the art. There is no possibility of cheating. It is either good or bad."

as other areas of their lives.

-Salvador Dali

Case #2

Art as Therapy and the Intermediate Level Student

Who conducted the research?

This research was conducted by a group of neurobiological scientists consisting of Anne Bolwerk, (Department of Neurology, University Hospital Erlangen, Nuremberg, Germany), Jessica Mack-Andrick, (Education Department of the Museums in Nuremberg, Germany), Frieder R. Lang (Institute of Psychogerontology, Friedrich-Alexander-University Erlangen Nürnberg, Germany), Arnd Dörfler (Department of Neuroradiology, University Hospital Erlangen, Erlangen, Germany), Christian Maihöfner (Department of Neurology, University Hospital Erlangen, Erlangen, Germany)

What was the purpose of the research?

The purpose is to show the continued benefits of art making regarding emotional health of adolescents. This specifically relates to easing anxiety and depression.

How might the analysis inform your problem/solution?

It will show that art continues
to be a benefit for adolescent
well-being. It will also present
research that will show that there
is a measurable effect on the brain
when a person participates in the
process of art making. All emotional
health originates in the brain. Any
activity that stimulates increased
brain function will increase positive
emotional and mental health.

"Art has the power to express emotions that can't be described."

-Sophieya



5 Key Questions

1. How does the brain benefit from art?

Advances in medical technology have allowed scientists to study the precise physical effects of stimuli on the brain. This is because the exposure to art invokes and stimulates the motor cortex even though there may be no physical movement involved.

2. What are the continuing effects?

In addition to the visual cortex being activated, other deeper state areas of the brain were also activated. These areas include the brain's pleasure/reward (serotonin) system. In addition, a sort of "daydreaming" brain mode was activated during conscious processing of the images. The brain is processing and judging the imagery even though the participants were not instructed to analyze the images.

3. How can continued art affect brain health?

We observed that the visual art production group showed greater spatial improvement in functional connectivity of PCC/preCUN to the frontal and parietal cortices from T0 to T1 than the cognitive art evaluation group. Moreover, the functional connectivity in the visual art production group was related to psychological resilience.

4. What types of exercises where used?

Each session adhered closely
to a precisely defined schedule,
including a sequence of thematic foci
such as blind or fast drawing, In-thespace room drawing, still life, figure
drawing as music, using colors, and
composition were used. Every section
was geared to highlighting a section
of the brain that was stimulated by
the production of art to show the
phyical effects on the brain.

5. What was the outcome relating to we need to do next to survive and increased mental ability?thrive. (Kaimal) Engaging with art of the control of the co

The findings point to greater activations and correlations. This indicates increased self-awareness, as a result of the methodological approaches applied in the visual art production intervention. Brain plasticity is the ability of your brain to grow and change over time. This can help you learn new skills, maintain flexibility of thinking into your old age, and maintain a high IQ. (Solara)

The visual art production intervention involved the development of personal expression and attentional focus on self-related experience during art creation.

Another interesting finding is a statistically significant correlation between resilience and functional brain connectivity.

Our brain is a predictive machine.

The brain uses "information to make predictions about what we might do next — and more importantly what

thrive. (Kaimal) Engaging with art can improve your mental and physical health in a variety of ways. On the physical side of things, a reduction in stress levels can mitigate a number of health dangers.

As NIDA's Director Dr. Nora Volkow says, "Research already suggests that getting training in the arts, or practicing an art, strengthens parts of a person's brain. The relationship between art and the brain is a powerful one that has more of a positive impact on our lives than we realize. Engaging with art can make us more sympathetic, better at solving problems, and more accepting of ourselves. (Solara)

"If you ask me what
I came to do in this world,
I, an artist, will answer you:
I am here to live out loud."
-Émile Zola

The 3 Visual Artifacts

Images of "Self-Reflected," an etching of a human brain created by artists Greg Dunn and Brian Edwards.



Figure 4- "Self-Reflected" Dunn and Edwards-Using photolithography, the artists etched the image onto a panel covered with gold leaf.

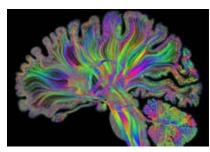


Figure 5- Dunn and Edwards- A computer image of "Self- Reflected,"

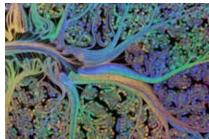


Figure 6- Dunn and Edwards- A closeup of "Self-Reflection" showing the cerebellum.

How might the analysis inform your problem/solution?

The problem is adolescents are at risk for developing anxiety and depression due to their physical development as they mature. Emotional control is a chronic problem for adolescents. Increased hormone levels and physical changes to their bodies cause normal chemical levels in the brain to be imbalneed. There is a need for adolescents to gain greater mental ability to enable them to better contol their emotions. In addition to having an emotional effect, art has a physical effect on the brain. This enables adolescents to strengthen their mental abilities and thereby serve to increase their emotional control.

"Art is a harmony parallel with nature."

-Paul Cezanne

5 Key Questions

1. How does this piece illustrate the topic?

By using the multi-coloring associated with art making, it shows the brain as it functions during the making of art.

2. How is it also a contrast to the topic?

It is basically an animated painting of your brain perceiving itself in an animated painting.

3. Is it creative as well as relevant?

I think that it is both creative and relevant. It uses color to trace the neural activity in the brain associated with creative output. It stimulates creativity by showing the stimulation of creativity.

"Vision is the art of seeing what is invisible to others."

-Jonathan Swift

4. What does the color blend illustrate?

First, the visual cortex at the back of the brain lights up, then light propagates to the rest of the brain, gleaming and dimming in various regions — just as neurons would signal inside a real brain when you look at a piece of art. (Ghoulapour)

5. How is this significant to Art making?

It is significant from a reserach standpoint and an art perpective as well. First, this study shows that not only does the brain have a effect on art, but art also has an effect on the brain. Second, the artists were extremely creative artistically. With the brain as their subject, they chose to use their creativity to create a unique image using a little-used medium to illustrate their point regarding the activites of the brain during the artistic process.



Case Study Report #2

Centuries before the establishment of modern neuro-science, master painters sought to create works that gave viewers an intense experience, summoning emotions or even activating other senses. Today, the neurological mechanisms underlying these responses are the subject of fascination to artists, curators and scientists alike. (Zambon)

The stress of everyday life for the adolescent can be overwhelming.

Any means that increases or facilitates brain function is an advantage for personal development.

Any means of enhancing brain function, is beneficial to adolescents and increases their resilience for dealing with the obstacles, setbacks and complications that accompany growing up. The purpose of this study is to highlight the physiological

has been determined that advanced ability is not necessary for art to have a positive effect, further research was needed to determine the benefit of continuing art making. This study is a group work that includes the following contributors: Anne Bolwerk, (Department of Neurology, University Hospital Erlangen, Nuremberg, Germany), Jessica Mack-Andrick, (Education Department of the Museums in Nuremberg, Germany), Frieder R. Lang (Institute of Psychogerontology, Friedrich-Alexander-University Erlangen -Nürnberg, Germany), Arnd Dörfler (Department of Neuroradiology, University Hospital Erlangen, Erlangen, Germany), and Christian Maihöfner (Department of Neurology, University Hospital Erlangen, Erlangen, Germany). Two different art interventions took place, each lasting two hours and occurring once a week

effects of art on the brain. Thought it

for 10 weeks in the Germanisches

National museum and in the rooms of
the Art Education Department of the
Museums in Nuremberg (Germany).

The two interventions were based on
different methodological concepts.
In the visual art production group, the
participants actively created art, and,
in the cognitive art evaluation group,
the participants cognitively evaluated
pieces of art. The concept of visual
art production intervention focused
on discovering and developing the
participant's own creativity. (Bolwerk
et al.)

Can art change the brain? In a word: yes. A panel of scientists and art practitioners came together to connect the dots between creativity and neuroplasticity. Studies have also found that frequent engagement with art actually reorganizes the frontal cortex, resulting in enhanced creativity and lessening of inhibitions. These inhibitions can be what prevent us from taking part in art in

the first place - the fear of not being good enough or worrying what other people think. (Harkin)

"Art accesses some of the most advanced processes of human intuitive analysis and expressivity and a key form of aesthetic appreciation is through embodied cognition, the ability to project oneself as an agent in the depicted scene," said Christopher Tyler, director of the Smith- Kettlewell Brain Imaging Center, during the related panel discussion. (Zambon)

Our understanding of how the brain works has progressed rapidly in the past decade. Academic literature used to depict brain activity as static, but, thanks to imaging technology, we have the capacity see how the brain operates in real-time and visualize the intricate connections between different brain regions that inform how we think and behave.

(Harkin) Artists are known to be better observers and exhibit better



memory of structure and details than that of non-artists. In an effort to see what happens in the brain when an individual is drawing and whether drawing can increase the brain's plasticity, Tyler's colleague Dr. Lora Likova, a scientist at Smith-Kettlewell, developed a way to capture an individual's drawing during an fMRI scan so that she could study it in congenitally blind individuals. Subjects explored raised-line tactile images with their fingers and spent a week learning to draw from memory alone, Tyler explained. (Zambon)

Several fMRI reserach studies have shown that MPFC, or medial prefrontal cortex, activations are associated with the use of cognitive strategies to reduce negative emotional experience - suggesting that the MPFC is indeed directly responsible for the successful cognitive regulation of emotions.

place, each lasting two hours and

occurring once a week for 10 weeks. "We found a significant improvement in psychological resilience from pre -intervention to post-intervention in the visual art production group. In the cognitive art evaluation group, in contrast, no significant improvement in psychological resilience." (Bolwerk et al.)

This is a unique forte of the arts, which utilizes the powerful capacity of the brain to adaptively (plastically) change following perception and action, and purpose new ways to view and interpret the world. Indeed, art may invoke new "brain states" that are otherwise less likely to be activated by our day-to-day "reality." Art therefore serves to explore and expand the potential capacity of the brain. In that sense, brain research and the arts are closely interlinked; modern brain researchers have much new to say about the phenomenon Two different art interventions took of art from a neuro-scientific perspective. (Segev)

Visual Analysis Case # 2

The artifacts in this case were chosen to reflect the inner workings of the brain. In these images, the brain is presented as artwork while performing artwork. Different regions of the brain were hand-painted and digitized later using a computer program created by Edwards to show the complex choreography our mind undergoes as it processes information. After printing the designs onto transparencies, the duo added 1,750 gold leaf sheets to increase the art's reflectivity. The astounding results are images that demonstrate the delicate flow and balance of our brain's activity. "Self-Reflected" was created to remind us that the most marvelous machine in the known universe is at the core of our being and is the root of our shared humanity," the artists share. (Stewart)

In Figure 1, The 8-by-12-foot gold panel, depicting a sagittal slice of the human brain, blends hand drawing and multiple human brain datasets from several universities. The work was created by Greg Dunn, a neuroscientist-turned-artist, and Brian Edwards, a physicist at the University of Pennsylvania, and is on display at The Franklin Institute in Philadelphia. Your brain has approximately 86 billion neurons joined together through some 100 trillion connections, giving rise to a complex biological machine capable of pulling off amazing feats.

Yet it's difficult to truly grasp the sophistication of this interconnected web of cells. (Gholipour) In addition to being unusual, the use of gold leaf creates a stunning overall visual for this piece. While creating an almost ethereal feeling for the viewer, it further pictures the illumination of the brain through the creation of art.



By showing a cross-section of the brain, it creates an opportunity to view the brain as a study as well as an art object. This is a unique opportunity to show the actual effect of art on the brain through line, texture, color and shape.

In the Figure 2 image, the artist is highlighting the same cross section. Instead of gold leaf, this time, the artist uses multiple colors to represent the breadth of artistic creativity. First, the visual cortex at the back of the brain lights up, then light propagates to the rest of the brain, gleaming and dimming in various regions — just as neurons would signal inside a real brain when you look at a piece of art. That's the idea behind this section of Dunn and Edwards' piece: "Self-Reflected." It's basically an animated painting of your brain perceiving itself in an animated painting. To make the artwork resemble a real brain as closely as possible, the artists used actual MRI scans and human brain

maps, but the datasets were not detailed enough. "There were a lot of holes to fill in," Dunn said. Several students working with the duo explored scientific literature to figure out what types of neurons are in a given brain region, what they look like and what they are connected to. (Dunn) In this way, the artist is showing the process of creating art by following the path of messages through the brain that occur when an artist starts to draw, paint, or sculpt. Figure 3 pictures a closeup of the previously described brainmessaging process focusing on the

It seems unusual on the surface for neurologists to be creating art, but art can be an enhancement to any profession. In this case, art provides an unprecedented opportunity for these great minds to create a dazzling visual image of the brain at work. The artist illustrated the brain in gold leaf and documented their work.

laminar structure of the cerebellum.

Then the artists drew each neuron. Dunn and Edwards then used data from DTI scans — a special type of imaging that maps bundles of white matter connecting different regions of the brain. (Gholipour) The enlargement enables the viewer to see the amazing detail presented by the artists as they show the brain as art while making art.

God said we are "fearfully and wonderfully made." (Ps. 139:14) We are God's creations. Art is a uniquely human activity associated fundamentally with symbolic and abstract cognition. Its practice in human societies throughout the world, coupled with seeming nonfunctionality, has led to three major brain theories of art. The localized brain regions and pathways theory links art to multiple neural regions. The display of art and its aesthetics theory is tied to the biological motivation of courtship signals and mate selection strategies in animals.

Collectively, these theories point to art as a multi-process cognition dependent on diverse brain regions and on redundancy in artrelated functional representation. (Zaidel) I shall therefore define the function of art as being a search for constancies, which is also one of the most fundamental functions of the brain. The function of art is therefore an extension of the function of the brain, and is a means for the seeking of knowledge in an ever changing world. To summarize, therefore, both the brain and one of its products, art, have the task of, in the words of artists themselves, depicting objects as they are. And both artists and nonartists face the problem of how to distill images from the ever changing information in the visual world and save only that which is important in order to represent the permanent, essential characteristics of the objects that they observe. (Zeki)



Case #3

Art as Therapy and the Advanced Level Student

Who conducted the research?

This research for this case study was conducted by the team of Pamela Newland and B. Ann Bettencourt.

What was the purpose of the research?

The purpose is to determine that the deepening of inner focus through Mindfulness Based Art
Therapy (MBAT) will relieve anxiety and depression relating to advanced adolescent artists. Further, it will show how Art affects adolescents spiritually. Finally, it will explain that knowledge of their created self helps Christian adolescents relate to God more deeply.

How might the analysis inform your problem/ solution?

MBAT is unique in the results it produces. It explores whether or not an artist's advanced skills can enhance the their ability to decrease stress. MBAT allows artists to understand who they can become. Those who have researched this topic feel there is still more to be learned, but preliminary research contends that advanced ability is not necessary for art to have a positive effect on decreasing adolescent stress which can lead to anxiety and depression. It does show that advanced artists have a greater opportunity to be able to explore mindfulness more deeply.

"Creativity is allowing yourself to make mistakes.

Art is knowing which ones to keep."

-Scott Adams

5 Key Questions

1. What is mindfulness?

When people are mindful, they are aware of and curious about what is occurring in the present moment.

That is, some of the key components of mindfulness are awareness of the moment, acceptance and curiosity.

2. How does increased training in art help create mindfulness?

Mindfulness-based therapies and interventions are complementary approaches designed to enhance psychological and physical health.

Mindfulness can be defined as present moment awareness and attention to the moment.

3. How does mindfulness help anxiety and depression?

Mindfulness-based therapies are known to relieve anxiety, depression, and fatigue in people. Combining expressive arts with mindfulness is expected to allow engagement in the present; thus, attention regulation, body awareness, and emotional regulation can be more effectlively achieved compared to mindfulness alone.

4. What types of Art Therapy are involved in mindfulness?

Mindfulness practices could include encouragement to be mindful while engaging in the art project or could involve formal meditation practice in addition to the art.

5. How does mindfulness help adolescent anxiety and depression?

MBAT sessions showed improved and fatigue and psychological symptoms (e.g., anxiety, depression). Likewise, most of the articles found that the MBAT, as a complementary therapy, was feasible and acceptable in its utility.

The 3 Visual Artifacts



Figure 7- Norman Rockwell (1894-1978), Triple Self-Portrait, 1960. Cover illustration for The Saturday Evening Post, February 13, 1960.



Figure 8- Pablo Picasso-Self- Portrait 90 Years Old (June 28, 1972)



Figure 9- Gustave Courbet – "Le Desespere- Self Portrait" 1843-1845; Oil on canvas, Musee d'Orsay

How might the analysis inform your problem/ solution?

It has been stated that mindfulness based art therapy, involves the process of more deeply understanding self. Self-portraits are a way to understand and come to terms with our outer and inner self. It is a means of capturing expression and personal expression. Artists learn from studying the masters, so studying master self-portraits is a good way to begin an approach to a study of mindfulness. In these master self-portrait examples, the artists show their inner personalities by painting their outward features. My project seeks to go deeper and do the reverse. I want to create a challenge and use the abstract concept of creating an inner personality portrait to show the inner personal self within the adolescent artist.

5 Key Questions

1. How can a self-portrait reflect an inner person?

This is done by accenting personality through emotion, technique or style.

2. What makes these portraits unique?

The planning, style, approach, and technique and the make each artist unique.

3. How are they examples of mindfulness in art?

They show each artist as they focus inside themselves and shut out the outside world.

4. How do these paintings inspire a viewer toward mindfulness?

They capture the gaze of the viewer and cause them to focus only on the images in the paintings.

5. How can the viewer apply the principles of mindfulness they see in their own Art?

By understanding that each style is unique. So, as the artist, their style must be original and personal as well. When you are being mindful, you have an enhanced ability in terms of your self-awareness. It gives you the capacity to reflect on your experience as it relates to daily life.

In essence, mindfulness-based art therapy connects the imagination to the body and allows the expression of feelings that you cannot express in words. Meditation can be practiced on your own at home as can many art-based forms of mindfulness.

While this doesn't replace interaction with a therapist, there are endless possibilities in terms of cost-efficient ways to implement MBAT in your daily life to combat stress and manage psychological difficulties.



Case Study Report #3

The concept of mindfulness originated from Buddhist practice and reflects a focus on awareness of emotions, physical sensations in the body, and consciousness. When you are being mindful, you have an enhanced ability in terms of your selfawareness and capacity to reflect on your experience and daily life. There are several components that are involved in creating the concept of mindfulness-based art therapy. In its simplest sense, MBAT (Mindfulness Based Art Therapy) combines the benefits of mindfulness training (for example, meditation) within the existing structure of an art therapy framework. (Cuncic)

Mindfulness is a simple,
systematic, practical insight-oriented
meditation practice with direct,
functional life applications as a

foundational stress management tool. Mindful meditation is the practice of being in the present moment - with awareness and acceptance of mind and body with the assistance of focus on an anchor or object. MBAT can reduce the severity of depression, anxiety and ADHD in children, build resilience to stress, assist management on a neurological level, increase happiness, and aid brain development from infants to age 100. Mindfulness and art-based therapies activate the same areas of the brain, so combining the two methods into one experience can come naturally for the human mind and also enhance the benefits experienced by both approaches. (Swerin) When approaching the question of how mindfulness and art therapy can be brought into co-existence it is necessary to examine what is effective, any contra-indicators and the various forms it can take.

It is helpful to ask, what are the aims in incorporating mindfulness approaches in art therapy? We know something of the benefits of mindfulness, and something of the benefits of art therapy; consideration will therefore need to be paid to the benefits of mindfulness and art therapy together, and whether there may be specific clinical groups or specific problems that may most benefit from this modality.

MBAT facilitates exploration of the whole self and the externalization of inner states, including feelings and emotions. (Roland) Combining mindfulness concepts with art therapy results in the therapeutic treatment known as mindfulness-based art therapy as first proposed by Rappaport. This treatment combines the philosophy of mindfulness within an art therapy setting. In other words, you engage in the creative process of making art as a way to explore yourself (in a mindful manner).

recognition as a tool for improvement in the field of psychology, though research-based evidence is still lacking, particularly with respect to studies with both treatment and control groups (to confirm that MBAT is better than a placebo treatment). Another name for mindfulness-based art therapy is "focusing-oriented art therapy," reflecting the emphasis on shifting focus as part of the experience. (Cuncic)

MBAT provides a non-threatening approach to psychotherapy. It helps to reduce stress and anxiety, resolve emotional conflicts, manage behavior and addictions, develop social skills, improve reality orientation, foster self-expression, awareness, self-efficacy, self-regulation, and self-esteem. It is proven to helpverbal processing with groups / multiple participants and access nonverbal processing of trauma that can be impacting the brain and the body.



In addition, cortisol (a stressrelated hormone) lowers significantly after just 45 minutes of making art. (Swerin)

In entering into art therapy, there is also the willingness to explore our inner world, within the framework of the containing relationship.

Mindfulness approaches and art therapy, together, can offer a unique benefit apart from either offered in absolute isolation.

In mindful art therapy, there is a complimentary meeting of work within a visual modality, the therapeutic relationship, and the practicing of mindfulness.

Mindfulness based art therapy has the potential of providing a different type of framework and experience, including conditions for a safe, containing exploration of an individual's experiences and feelings, within the therapist-client relationship, in which mindfulness is practiced. (Roland)

The mindfulness practices
promote observation and awareness
of the present moment. Expression
of that moment is accomplished
through art making. Choice in
materials provides opportunity for
self-exploration and enjoyment. In the
MBAT intervention, specific art
therapy tasks are designed to foster
awareness, reinforce learning, and
increase self- understanding
extending from the mindfulness

The art making process and meditation are both solitary undertakings and often operate in the context of silence. In the quite inner space, the inner world of one's thoughts, feelings and experiences can be witnessed, organized, created and externalized. In this creative process, the artist navigates the inner world and journeys to the heart, using imagination and intuition. (Weinapple)

practice. (Monti)

Visual Analysis Case # 3

Mindfulness-based art therapy combines forms of mindfulness and art to offer a method to help manage psychological issues, particularly among those experiencing other problems such as physical illness or end-of-life concerns. (Cuncic) MBAT helps the user to achieve a better understanding of self. One of the best art exercises to connect with self is to draw a self-portrait. Drawing this type of portrait gives an opportunity for the artist to search physical features as well as emotional components. Most artists have attempted a selfportrait at one time or another. Each of the following self-portraits were done by well-known artists and represent different styles and well as approaches.

Figure 1 is Triple Self-Portrait, done by Norman Rockwell. It is an oil on canvas, 44" x 34" Cover illustration done for "The Saturday Evening Post" and published on February 13, 1960. In 1960, Norman Rockwell produced one of the most famous self-portraits in American art. A naturally modest man, he clearly had some reservations about making himself the subject of a cover. He had put himself on covers before, but usually only as a cameo, never the central figure. In describing this work, Rockwell explained why his glasses look opaque: "I had to show that my glasses were fogged, and that I could not actually see what I looked like — a homely, lanky fellow — and therefore, I could stretch the truth just a bit and paint myself looking more suave and debonair than I actually am." (Nilsson) As a self-portrait is an opportunity for the artist to reveal something about himself, Rockwell shows himself reflected (in the mirror) through the distorting lens of his own



perception. Three images of himself placed in some illustrious company -Dürer, Rembrandt, Van Gogh, Picasso-, as he admitted of being influenced by both classic and modern fine arts masters.

The helmet is a reminder to himself not to be taken in by appearances.

He bought it in a Paris antique shop, thinking it was the headdress of an ancient Greek or Roman soldier, only to realize later that all French firemen wore those helmets. The artist's signature is part of the composition, on the uncompleted canvas. (Zoom on Contemporary Art)

Figure 2 is a self-portrait by Pablo Picasso. Known as one of the most prolific painters of Modern Art, Pablo Picasso was undoubtedly a man of many talents. The Spanish artist experimented with and excelled in many mediums, from painting and drawing to sculpting and collaging. In addition to different art forms and unique materials, however, Picasso

of styles. This constantly changing aesthetic approach is evident in his series of self-portraits, which he painted from the age of 15 until 90. (Richman-Abdou) Picasso was perhaps the greatest visual composer in history. He understood the page as a highly sensitive field where forms would interact in perpetuity. It is why even his most grisly or despairing pictures are beautiful if you stay with them long enough. He moved in this dimension like a lover, permissive of all things so long as they were in awakened relationship with the environment of the page or canvas. (Alden) Both his style and his personality are on display in this piece. Figure 3 is a self-portrait by Gustave Courbet. Courbet's "Self-Portrait as the Desperate Man" is one early example, produced in 1845, at the apex of the artist's melancholy and Romantic disillusionment.

also worked in a spectacular array

Courbet presents himself frontally in a tight, claustrophobic, horizontal frame. It has been suggested that Courbet's goal was to "share the intensity of a moment in which the artist, having come to the end of his Romantic education and suddenly overcome at the spectacle of his imminent downfall, finds the strength to repudiate a destiny that is not his." In this way, it proves to be a key work in the artist's life, and it remained in his studio until his death. (Webster)

Courbet had a personality that was "bold, wily, radical, ambitious and determined" and this self-portrait depicts that. The viewer sees the emotion behind this painting, the sheer panic of a man lost within in his own thoughts. His brows are in a worried position; as if by looking at the viewer, he has seen something that is dooming. The lighting in this painting is also symbolic to his emotion with most of the light on

his forearm, while his face is cast in shadow. (Romantic Portraits)

There is quite a long tradition in the art world of painting self-portraits. A self-portrait is basically a representation of an artist about himself that does not necessarily needs to be representational. Historically, in fact, artists used selfportraits as a kind of calling card, attesting to their ability to capture a likeness and giving a sense of their capabilities. For artists, self portrait artwork represents the whole artist—in other words, how he sees himself, what he's feeling, and how he wants to be seen by others. It's not necessarily about creating a realistic image of yourself; instead, it's often an exercise in self-exploration. Self-portraits are also a good form of personal self-expression. We can put a personal touch on a portrait of someone else, but using yourself as a subject adds a whole new level personal expression. (Davis)



Chapter 3

The Visual Process

My visual process began as I formulated my plan to create three project-oriented infographics. I wanted to show how Art as Therapy in a classroom setting, can be effective for combating anxiety and depression relating to adolescents. I chose to divide my projects into three different levels involving beginner, intermediate, and advanced artists.

Inspiration and Motivation

I work with adolescents on a daily basis, and I see how fragile they can be at this stage of growth. I want to be a source of encouragement and peace in a period of confusion.

I have seen the difference art has made in my own life and the boost

of confidence I received as a result of participating in Fine Arts. I want to help young people find the same joy.

Infographic #1

I begin my inforgraphic by roughly sketching out some ideas.

Some of them I liked, and some of them I decided not to use. I started with sketches that would represent the elements of my design.

Some of my original ideas included colored pencils, a paint splat, shadowed numbers, arrows, and possible notebook designs.

My ideas were scattered, and the sketches really helped me narrow down my choices, map out my direction and choose my imagery. I went through several drafts before arriving at the one that would become my final infographic. I tried different fonts and illustrations while experimenting with different styles and backgrounds.

I thought about doing the inforgraphic as a map with each folded section serving as a separate part of the instruction. I considered using arrows instead of numbers to show the successive steps to the finished project.

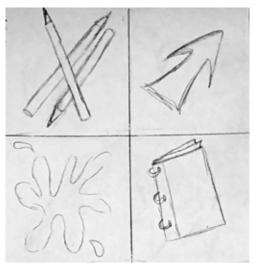
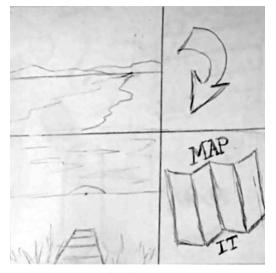


Figure 10- Ideation sketch 1

I considered using various art supplies, but it made the design look too busy. I did several sketches to see what style I wanted to use. I considered making the inforgraphic in a comic format, but I decided it might not apply to older more serious adolescents.



Figure~11-~Ideation~sketch~2

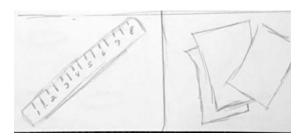


Figure 12- Ideation sketch 3

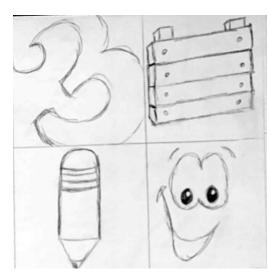


Figure 13- Ideation sketch 4

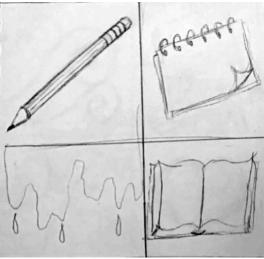


Figure 14- Ideation sketch 5

I had an idea to make the picture in each step look like it was a page in a notebook. I made a Ticonderoga pencil because they seem to be very popular. I thought about having a drippy paint background but it turned out to be too much of a distraction to the visuals in the infographic.

There are many landscapes that I find relaxing to view. There are also many ways to make numbers. I experimented with several styles.



Figure 15- Ideation sketch 6

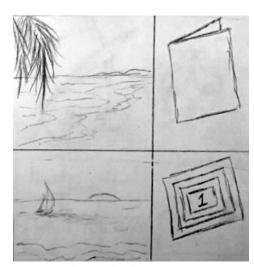


Figure 16- Ideation sketch 7

I did several sketches to see
which one would be simple enough
for a beginning artist.

I also wanted to picture
several types of sketch books. I
even considered folded pages. I
finally chose a tropical scene with
mountains and a palm tree.



The example I chose is actually my personal calming landscape. There is something about tropical topography that calms my spirit if I am feeling anxious. (Figure 4)

Once the dock/deck is completed, students are encouraged to create a scene that pictures a favored travel destination spot. All types of landscapes are possible. The freedom to create and individualize this peace, gives adolescents power over their art making and inspires confidence. For my example, I chose a Hawaiiinspired tropical background that causes me to feel relaxed as I view it. After the student art piece is drawn out, only the coloring remains.

Coloring is a relaxing art exercise for adolescents that promotes a feeling of joy and peace. I colored it simply with colored pencils because this is a familiar medium to adolescents, and they are not intimidated to use them. As a point of further research, I created

a PowerPoint of my steps to be presented as a class project. I showed my PowerPoint to my class of Middle School Art 1 students who are studying one point perspective. They were thrilled to see that learning to draw boxes in perspective could lead not to just drawing buildings, but to a polished landscape.

They drew the dock/deck fairly

easily and continued with their own destination ideas. Some drew lakes with mountains. Some drew forests or tropical landscapes. Some chose desert scenes with one even including pyramids. When they got to the coloring portion of the project, they became very quiet and absorbed in their work. By the end of the class period, all of the students were proud of their creations and the skills they felt they had developed. They received praise from those who viewed their work and have continued to work with this format to create new designs.

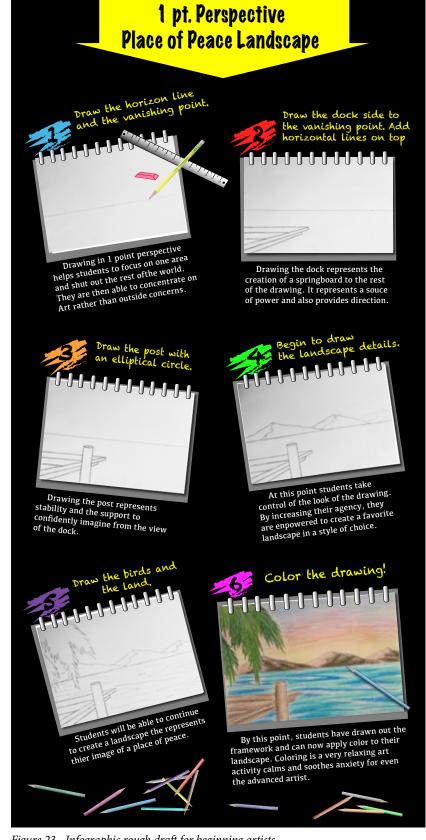


Figure 23 - Infographic rough draft for beginning artists

Infographic #2

I began my second infographic by making more rough sketches. I had varied ideas for how I wanted to represent brain and brain activity. I wanted my final product to be colorful. I wanted it to have a modern electric feel to emmulate the electricity of brainwaves.

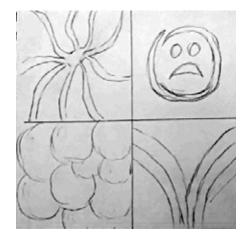


Figure 25- Ideation sketch 2

I wanted to express the physical affect that art as therapy has on the artist. The brain is not only the source of thoughts but also the source emotions. I wanted to show both the path and the result of brainwaves as they convey messages for emotions.

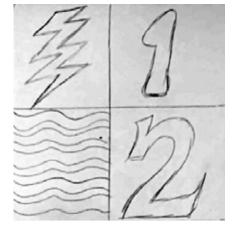


Figure 24- Ideation sketch 1

I considered several ideas to
try to convey the point. I thought
about using light and I thought
about tracing nerve endings. Since
adolescence tends to be a time
of storm and strife for some teens,
I also considered using a stormy
background that included lightning.
All of my original ideas turned out to
be too busy for a background.

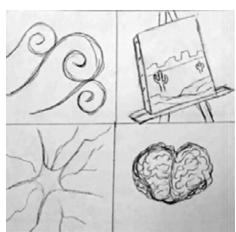


Figure 26- Ideation sketch 3

To portray the brain waves in the background of the infographic, I considered making the brain in the shape of a heart to symbolize both emotion and thought in one picture. It seemed to confuse the message that I was trying to convey. I also considered bubbles for my explanation points.

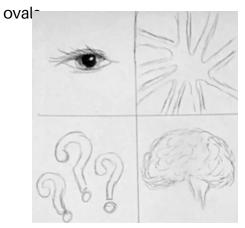


Figure 27- Ideation sketch 4

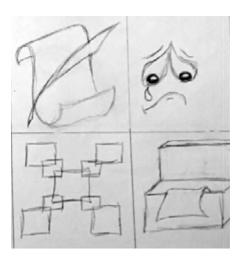


Figure 28- Ideation sketch 5

I experimented with different shape designs for the mind map itself.

I thought about a fancier design, but it overwhelmed the message. I decided to just keep things simple and use geometric shapes. I originally thought I would prefer connecting

I thought they would create the look of an organically-formed mind map. They were difficult to align, and they looked messy rather than organic. They were not the answer to achieve a polished professional look for the infographic. I had a difficult time finding a look that worked.

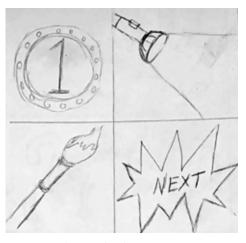
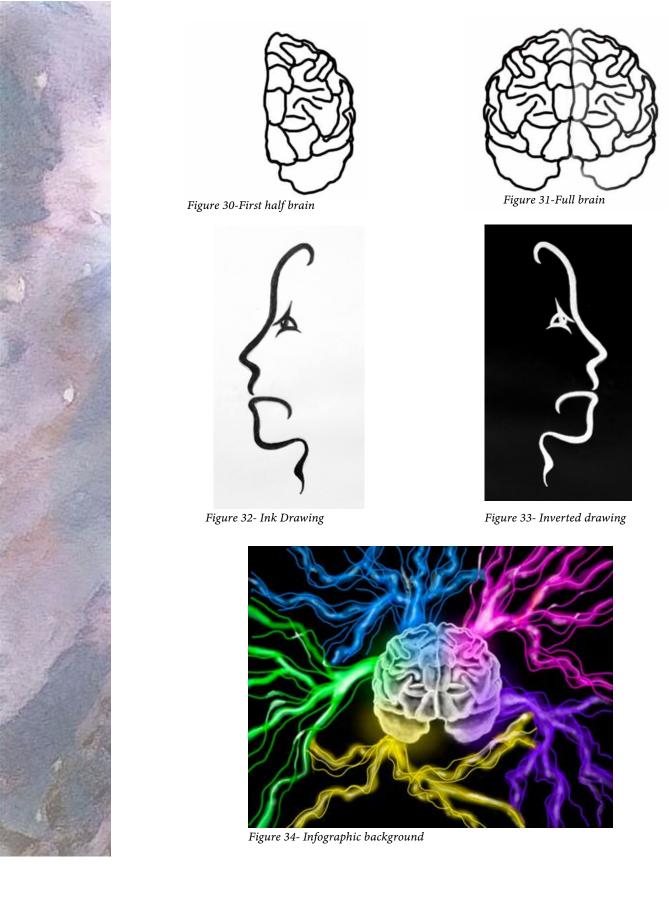


Figure 29- Ideation sketch 6













My inforgraphic ideas merged to become a literal mind map showing emotions adolescents can struggle to control. It ties into my second case study which deals with the brain. I started by drawing half of the brain. (Figure 30) I then uploaded it to Photoshop. I duplicated the first half and flipped it to form the whole brain. (Figure 31) Then I began to add colors to simulate the brain waves of emotion emanating from the brain itself. (Figure 14) The idea was to make it look complicated and intense to mirror adolescent emotions. To illustrate the emotions, I chose to do simple line drawings in ink. (Figure 32) I then inverted the colors in Photoshop so that the lines appear white. (Figure 33) I used the drawings as a base to create a neon look for the line drawings. The four emotions that were chosen were happy, sad, (depression) fear (anxiety), and anger. These represent emotions that adolescents struggle

to control. After finishing the neon look for the emotions, I uploaded my project into Illustrator and began the mind map originating on the brain. Ovals in numerical order are linked to the original title oval. Each oval has an explanation, and they are linked to the emotions by color. The explanations are meant to be concise and show how art can help adolescents take charge of themselves and in turn have greater control over their individual situations. I toned down the background so that the words would be easier to focus on and read. The image pictured is a rough draft of my infographic (Figure 39) and it includes all the above mentioned imagery as well as a pencil and a paintbrush to represent art making. I used a dark background to make the face profiles stand out. Each of the facial sections represent an area where art as therapy can be beneficial for easing the anxiety and depression

adolescents experience on a daily basis. The vertical titles represent the ideal emotional states that can be achieved. The yellow picture shows an artist at peace. The purple picture represents the anxiety that can be calmed through art. The blue silhouette illustrates the depression some teens experience. Finally, the red expression illustrates the anger

and frustration adolescents can experience as they grow into adults. The map shows the pathway and the connection of art as therapy to positive mental health. Each oval is meant to encapsulate a small synopsis of the effect art can have on the physical brain of the artist. The mind map represents the inner workings of the brain.

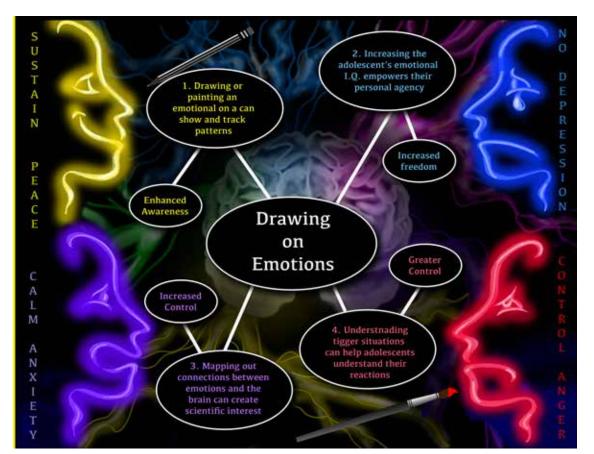


Figure 39- Infographic rough draft for intermediate artists



Infographic #3

My third and final infographic was done to show a project that was designed to benefit the advanced artist. It relates to my case study on Mindfulness Based Art Therapy. MBAT is designed to help physical health by improving psychological health. The associated deliverable is to do a inner personality portrait. This project is geared toward more advanced artists, so, by way of research, I tried it out on my Honors class. I asked them to do an inner personality portrait, and they just stared at me. This is usually a pretty creative group, so I was very surprised. Somehow my request got a little transposed by a student question, so I asked them what it would look like if they drew their soul. Suddenly everyone had an answer. I would never have guessed that the would "soul" would be the trigger

wording for them to create their art.

They did understand the request as
an inner personality portrait. This was
certainly an educational project on a
personal level for me.

My deliverable is actually my inner personality portrait. I picture my inner personality, or my soul, as an intricate abstract glass sculpture. The challenge has always been to keep it clean so that it could reflect Jesus. Over time, it has been partially cracked and shattered, then fused together and tempered by the fire of trials meant for my sanctification. None of those experiences described were pleasant, but now the crushed glass reflects the light of Jesus even more intensely.

I started with a sketch to get an idea in my head, (Figure 40) but I did not use the sketch to paint because I knew I wanted to use a white outline for the glass. When I had mapped out my idea, I could see where I wanted to place the white lines for the glass.

Normally, my process would involve a much larger number of sketches, mood boards or brain storming outlines. The difference for this piece is that it is not something I am designing, but something I have pictured. Although I have never made it a concrete image, this is how I always saw my inner personality. In the understanding of my students, this is the concrete image of my soul. I am grateful for their direction. I think that framing this project with those words helped me connect with it in a deeper spiritual way. It was defiinitely an opportunity to reflect.

As I began the design, I pictured it as a watercolor style piece. After starting, I realized it would take more than traditional watercolors to achieve the effects I wanted. Once the color was on, I used a white paint pen to draw the shattered glass.

(Figure 41) Then I added the graphic design portion in Photoshop. (Figure 42) I evened out the crushed glass,

added some textures and layered some sparkle to show the reflected Light of Jesus. (Figure 43)

The inforgraphic (Figure 44) shows the steps that were followed to create the piece. Less sketching may be needed if one has a clear image in mind. The explanation for the benefit to the adolescent regarding emotional wellness is included with the illustrations. MBAT allows the adolescent to create a visual image of themself, thereby gaining a better understanding of who they are and insight into the beauty they have hidden within themselves.

Some of the specific psychological benefits of MBAT that have been demonstrated in the literature include the following:

- improved psychological stability
- changes in brain patterns
 reflecting a calm, focused state of attention
- increased emotional awareness
- improved quality of life (Cuncic)



Working through making an abstract concept into a concrete art piece helped me see how amazing the path of my life has been. The Bible includes God's promise of trading "beauty for ashes". Isaiah states, "to bestow on them a crown of beauty instead of ashes, the oil of joy instead of mourning, and a garment of praise instead of a spirit of despair. They will be called oaks of righteousness, a planting of the LORD for the display of his splendor." (Is. 63:3) My project working with MBAT helped me see myself and my relationship with God in a positive light.



Figure 41- Color and white paint pen



Figure 42- Evened out work



Figure 40- Rough Sketch



Figure 43-Inner Personality Portrait-"My Soul" by Nanette Cross

I did have to do some sketching for the infographic to explain the work. I used retanglular shapes to accent the shape of the artwork. I tried to do as many rectangle designs as I could think of. I drew them at angles, in a straight line, and diagonally.

There was not one complete design that I liked better than the others. (Figures 44-54) I decided to incorporate ideas from each sketch to create a finished product. (Figure 55)

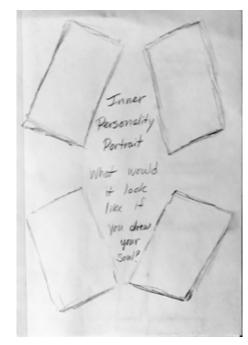


Figure 44- Ideation sketch 6

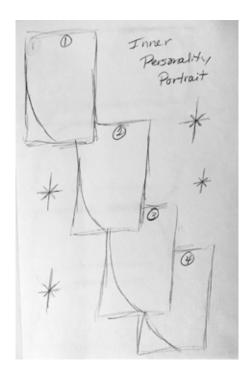


Figure 45- Ideation sketch 6



Figure 46- Ideation sketch 6

Creating an inforgraphic for MBAT involved first understanding the therapy itself. One of the benefits is that it fosters self expression, awareness, self efficacy, self regulation, self esteem. (Swerin) This project was designed as a way to explore the inner self. It is meant to be a physical representation of the process involved in looking inward to find peace, reduce emotional conflict and manage behavior.

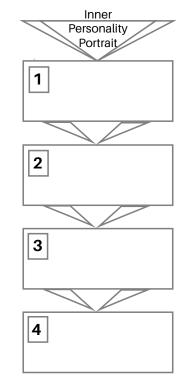


Figure 48- Ideation sketch 6

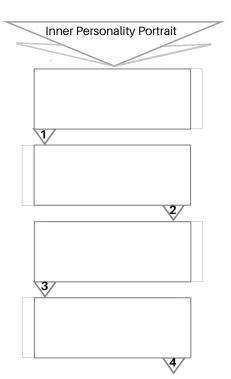


Figure 47- Ideation sketch 6

Circles cut off my ability to express the importance of each step. I realized early on that only rectangles or squares would give me the adequate space that I needed to explain my process. The ordering process was an important part of the explanation and decided on using regular numbers for clarity. Since it essentially represents my inner personality, I incorporated my favorite colors.

I did rough notebook sketches as well as more refined Illustrator designs to see what style I wanted to use. I still continued with the rectangular themes while adding other shapes to experiment with a possible design base. I chose to use angles for this project because this method allowed me the most room to present my explanation. I added more shapes so that I could add more information.

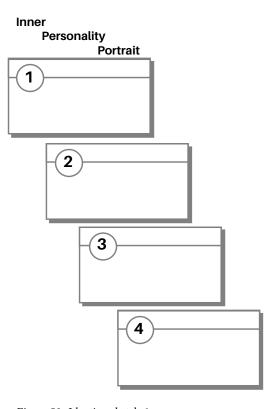


Figure 50- Ideation sketch 6

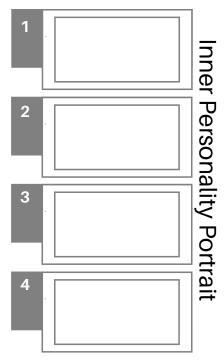


Figure 49- Ideation sketch 6

I experimented with different alignments, but in the end, I felt that a centered alignment was best. I struggle with keeping designs simple and to the point. In this case, I wanted it to look eye catching, but I did not want to overwhelm the information. The centered alignment made the information that was included more accessable and easier to read.

I had several different ideas for how to connect the steps, but my designs were often detractions. My plan was to make that eye move across the page, but not to the degree that it was physically uncomfortable to follow the design direction. I also had a difficult time establishing a hierarchy for the overall design. The overall style I wanted was difficult to pin down, and I tried many different configurations.

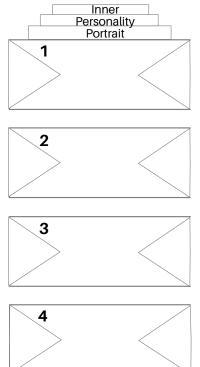


Figure 52- Ideation sketch 6

Inner Personality
Portrait

2

4

Figure 51- Ideation sketch 6

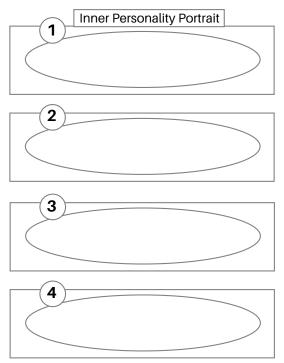


Figure 53- Ideation sketch 6

My rough draft infographic
(Flgure 57) had some elements
that I liked when I first completed it,
but on further inspection, I realized
I would need to reconsider and
redesign parts of it. I tend toward
busy designs, but I saw that more
is not always better. Sometimes it
is too much. I went through several
more ideas before deciding on the
design that is represented in my final
infographic. (Figure 61)

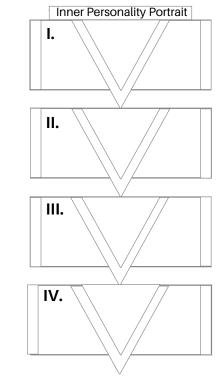
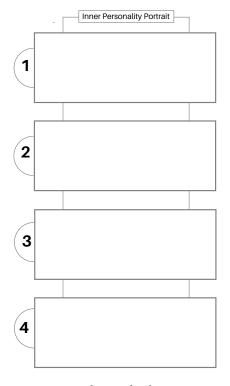
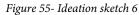


Figure 54- Ideation sketch 6





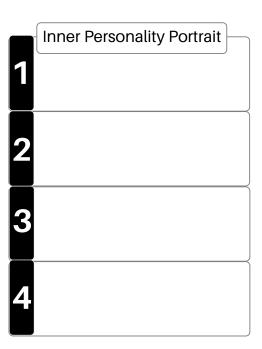
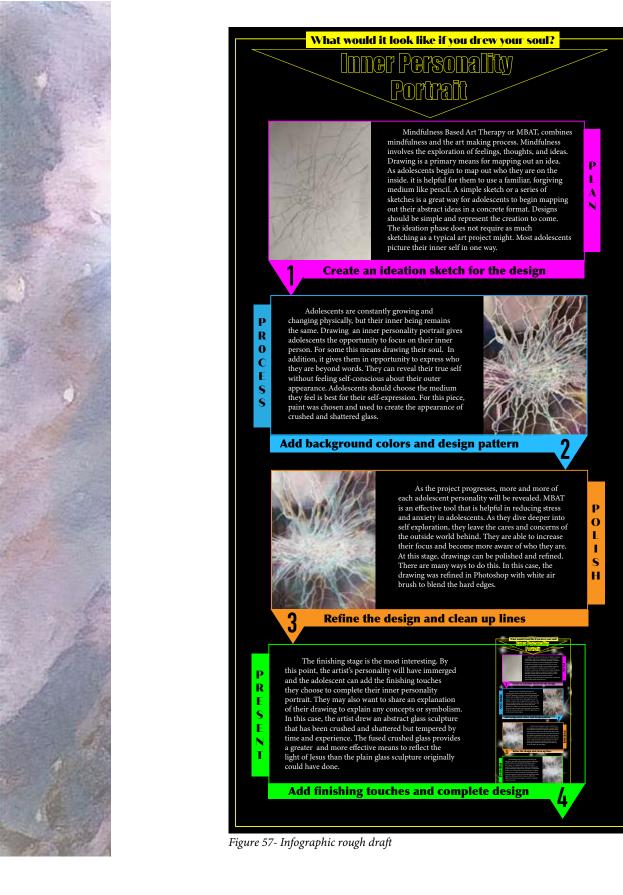
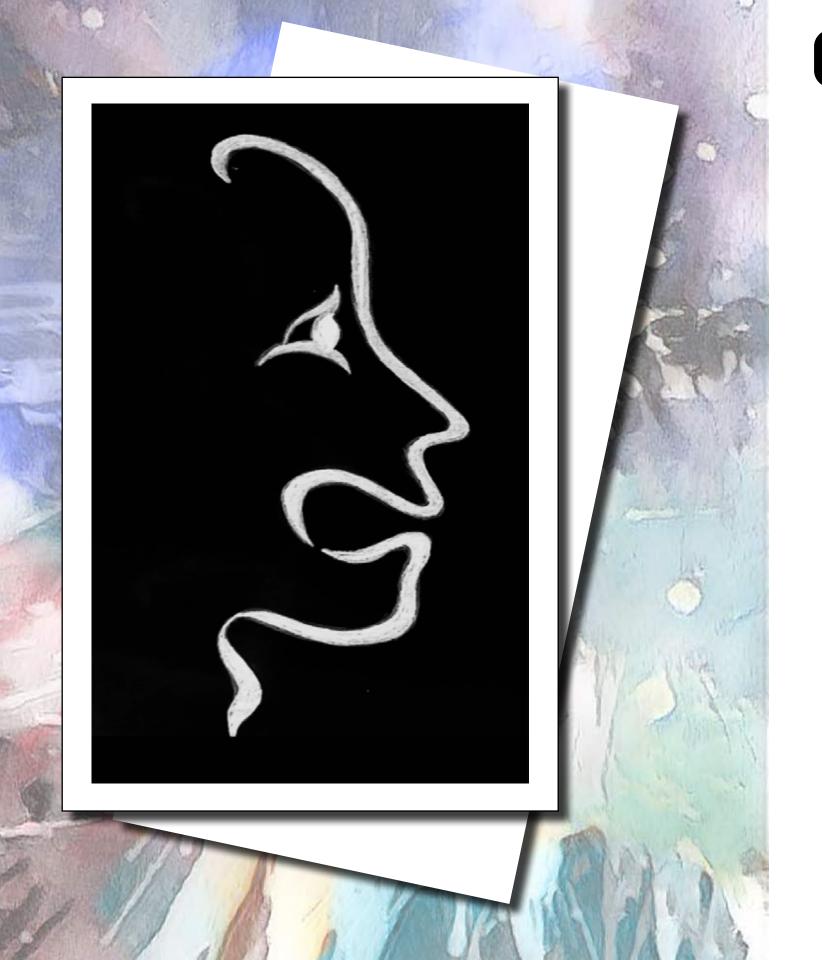


Figure 56- Ideation sketch 6







Chapter 4

Final Solutions

My final solutions are based on my case studies. My goal is to show that Art can provide an emotional benefit through relaxation, (beginner) a physical benefit through improved cognitive abilities, (intermediate) and a spiritual benefit by increasing mindfulness within the artist. (advanced) The deliverable for each level is a combination of studio art and graphic design pieces. All of my pieces were designed with the purpose of showing how art making can ease common anxiety and depression in adolescents. The deliverables were all designed with a classroom objective in mind rather than a therapy session perspective. Each project began as a pencil design and progressed from that point. Each involved different mediums from that

point and all ended up being part of a graphic design piece. All of my pieces are also based on Adaptive Response Theory (ART) which is founded on constructs from evolutionary biology and human development. The theory is based on human responses to threats to well-being (bio-physiological and psycho-socialspiritual), as well as, how art making and imaginative processes align with the current conceptualization of the brain as a predictive machine. Based on four components of art therapy practice (art, art making, patient/ client, and therapist), the framework delineates how mechanisms of change can be tracked systematically to determine the outcomes of interventions. (Kaimal)

All of my projects combine to show that art is more than a way of filling time during a school day.

Art is academically, socially, and intellectually significant.



Beginning Art Level Emotional Benefit

My purpose with this project was to create a step-by-step process for an art piece that could be drawn out, customized, and colored successfully by a beginning artist with a minimal amount of knowledge or instruction. For beginner artists, there are several important elements their art experiences should include. First, they should enjoy what they are doing. Second, they should learn something they can apply to other work. Third, they should be tasked with an achieveable goal so that they can experience success.

For my first deliverable, I designed a one point perspective "place of peace" landscape that could be drawn by a beginning artist.

The first part of my deliverable is my finished drawing of a peaceful landscape. I added mountains in the background and a palm tree hanging down in the front to symbolize Hawaii. It represents my place of peace and relaxing reflection.

The second part of my deliverable is an infographic that explains my work in planning, process and purpose. I included photographs of each of the steps and an explanation regarding the significance of each step in helping to alleviate anxiety and corresponding depression that can occur in adolescents. I used a sketchbook design to show each drawing step with the actual drawing on top in each example. The black background was not working so I changed the look. My place of peace involves water, so I used a beach setting for the final infographic and colors that also evoke the beach. The numbers are purposely large and the titles match the explanations. All pictures are stacked in a column so

that the viewer can scroll to view.

For the first picture, I started by creating a page that shows the horizon line and the vanishing point. This step helps the students to focus on one thing and shut out the rest of the world. All their other concerns fade away.

The second picture shows how to line up the lines to the vanishing point to create the dock or deck if artists prefer. This will represent their springboard to go wherever their imagination takes them. It provides direction without limiting their personal creativity.

The third picture adds the post for the dock or deck. It represents stability and gives artist the support they need to confidently travels to their desired destination limited only by their imaginations.

The fourth picture shows how
the artist can begin to add to
the landscape beginning in the
background and working to the
foreground. Any type of background

can be chosen. In this picture (Figure 60) mountains were added to set the peaceful landscape scene.

The fifth picture the continuation of drawing within the scene as more elements are added working toward the foreground. A palm tree is drawn hanging down in the foreground. The elements in the scene suggest a landsscape that has a tropical pacific location. This scene was chosen as my landscape escape, but everyone has a different place they would like to visit in their imagination.

Although technique is important, it is not all important. Beginning artists should be encouraged to discover their passion and not get bogged down trying to execute what they have learned perfectly. If any limitations are placed, they should be placed sparingly. Students should be encouraged to be creative and imaginitive. The sky is not the limit for this project.



Students can draw undersea pictures as if their dock was attached to an underwater sea lab. They could imagine a scene in outer space as if their deck was attached to a space craft. Every picture can be a combination of the guidelines of one point perspective and the nearly unlimited visions of their imagination. Having the freedom to create their own individualized piece gives adolescents the agency they crave without the stress of having to meet a series of arbitrary standards.

The sixth frame involves coloring the scene. This is perhaps the most fun and engaging part of the piece. By this point, all of the drawing has been completed. Coloring is one of the most relaxing activities in art. It calms anxiety and allows the student to make their work come to life. Coloring also allows students to focus deeply and shut out other concerns. Studies have been carried out concerning the effect of free

drawing and coloring on adolescent anxiety. Results showed a significant decrease in test anxiety and a significant increase in mindfulness following both activities. (Carsley)

I chose colored pencils for the
beginning students to use on
the color portion of this project. I
specifically chose colored pencils
because adolescents are comfortable
with them. Most have been working
with them since elementary school.
They provide the adolescent
beginner artist with a greater level of
control than markers and they do not
have the "little kid" stigma of crayons.

The students who participated in the drawing process for this picture supported the assertion that it gave them a sense of pride in accomplishment. They felt that this helped them to relax and shut out all other concerns. It has given them a confidence boost that may carry over to achieve success in other areas.



Figure 58- Landscape enlargement



Figure 59- Final Peaceful Landscape

During the process of making this infographic, I went through several different design styles. I wanted an infographic that would convey peace, and I struggled to find it. For my final infographic, I chose to use elements of the beach which is my personal place of peace. The background is meant to look like sand, and the turquoise colors reflect the ocean colors that can be seen in the islands of the Caribbean. I made the title block with alternating larger and smaller white lines that would appear on a ruler to show one of the tools used for one point perspective.

The Art Deco style triangle, which is also shades of turquoise, ends at a point to further symbolize the one point convergence theme. Each instruction level is pictured as a page in a spiral bound drawing sketchbook to symbolize a beginner practice level. The final picture represents a beach location that includes mountains and tropical trees.

Each section also includes an explanation of each step in both process and purpose. The title above the picture marks the process, and the explanation below the notebook states the purpose of each step. As the adolescent works through the steps, they are also experiencing an emotional release.

By the time artists come to the coloring section, all their stress is melting away, and they can just enjoy adding the colors they think will make their landscape come alive. Each step, in a way, is part of a progressive therapy session. This was also the most therapeutic part of the exercise for me as well. Coloring this piece was relaxing and helped me release the stress of my previous week. This project shows that beginning adolescent artists can create art pieces that will bring them joy and praise from others if they are properly instructed and encouraged in their artmaking process.

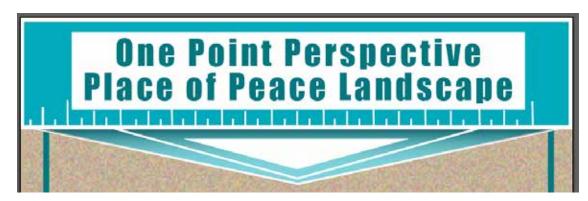


Figure 60- Infographic enlargement



Figure 61- Infographic enlargement



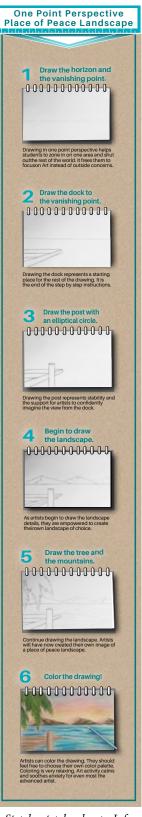


Figure 62- Step by step landscape Infographic

Intermediate Art Level Physical Benefit

My focus regarding the intermediate artist was to study how art affects adolescents on a physical level. On this level the art making is more challenging. Art is a product of human creativity; it is a superior skill that can be learned by study, practice and observation. Modern neuroscience and neuroimaging enable study of the processes during artistic performance. A specific functional organization of brain areas was found during visual art activities. It was found that the right hemisphere is specialized for metaphoric thinking, playfulness, solution finding and synthesizing; it is the center of visualization, imagination and conceptualization, but the left hemisphere is still needed for artistic work to achieve balance. (Demarin) Exploring the deep roots of art from cognitive, neurological, genetic,

evolutionary, archaeological, and biological perspectives is essential for the full understanding of why we have art and what art is about. The cognitive basis of art is symbolic, abstract, and referential thinking. (Zaidel) The evidence rather suggests that the arts have cognitive and emotional effects which are closely related to human psychobiological health and well-being. These are: (1) attentional focus and flow, (2) affective experience, (3) emotion through imagery, (4) interpersonal communication, (5) self-intimation, and (6) social bonding. These effects are beneficial and contribute to the individual's biopsychological health and well-being. The fact that artistic practice has these effects helps explain why the arts are so important to human life and why they developed in the first place, i.e., as ways to foster these effects. (Christiansen)

The idea for my second inforgraphic was to make a literal mind map showing emotions adolescents can struggle to control. It ties into my second case study which deals with effects of art on the brain. Most artists understand the significance of the right side of the brain for producing art, but they do not necessarily understand that both sides of the brain are required to produce art. Further, most artists do not understand the effect that art making has on the brain itself. The mind map is draw to be an

The mind map is draw to be an illustration of both the effect art has on the brain and to show how this effect can also translate to increasing the power adolescents have to control their emotions.

I began my infographic by creating simple line drawings in ink.

The finished look is glowing neon to represent the raw powerful emotions that adolescents experience. The four emotional states that were chosen

are happiness, sadness, (depression) fearfulness (anxiety), and anger.

These represent the major emotions that adolescents struggle to control.

After finishing the neon effect for the faces representing each of the emotions, I uploaded my project into Illustrator and began the mind map originating on the brain.

Each rounded rectangle has an explanation, and they are linked to the corresponding emotions by their common color. (Figure 61 and 62)

The explanations are meant to be concise and explain how art can help adolescents take charge of their mind and in turn have greater control over their individual environments. There are some differences between the rough draft and the finished product. The two most significant involved simplifying the background to plain black to have less of a distraction to the message of the infographic. The other was to change all the lettering to white for ease in reading.

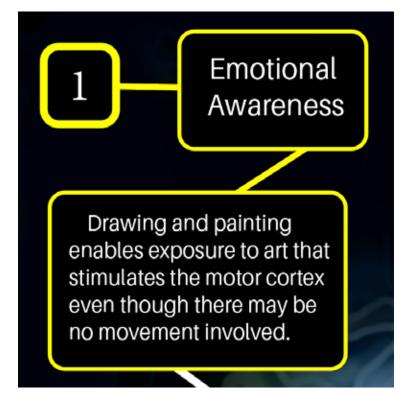


Figure 63- Infographic enlargement

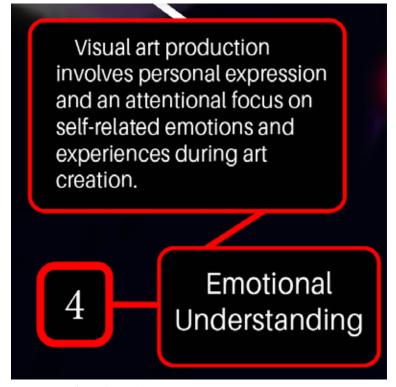


Figure 64- Infographic Enlargement



to picture an emotion that involves peace and contentment. I chose the color yellow to evoke a feeling of sunshine, warmth and light. It conveys a feeling of optimism. Yellow is a cheerful and energetic color that brings fun and joy to the world. It makes learning easier as it affects the logical part of the brain, stimulating mentality and perception. It inspires curiosity and boosts enthusiasm. Most prominently recognized as a cheerful and lively hue, yellow inspires positivity. With its effortless innocence, the color yellow resonates deeply with children. (Oleson) The expression is meant to reflect the inner feeling of the emotion. The closed eyes reflect the relaxation that comes from experiencing inner peace, and the smile represents calm the artist can achieve from using art making to balance emotions.

The depression illustration pictures the adolescent feelings

The happiness illustration is meant associated with extreme sadness. Althought there is a difference between sadness and depression, sadness that persists can become depression. Youth with depression are likely to suffer broad functional impairment across social, academic, familial, and occupational domains. Adolescents with depression are at higher risk for substance abuse and other psychiatric comorbidities. In addition, depression disorders with a pediatric onset tend to be more chronic and debilitating than depression beginning in adulthood. (Cook)

> Not intending to be campy, blue was chosen to show a correlation between the common term "feeling blue" and sadness. As a cool color, blue shows a drop in emotion. In this case, it is meant to evoke a cold feeling. The tear drop coveys the pain and emptiness that accompany extreme sadness that can lead to depression.

The anxiety illustration shows the fear that the adolescent can experience on a daily basis as a result of a variety of stressors they might experience throughout the day. The inforgraphic stresses that effect art has on the brain combatting the stress that causes anxiety. Since anxiety occurs first as a brain activity, art is shown as a way to to achieve relaxation and diffuse social stressors. Social anxiety is very much a disorder with its origins in adolescence, with the majority of cases occurring during this period: 90% occur by the age of 23 years with incidents increasing through the adolescent years and a median age of onset of 13 years. (Leigh)

Violet was chosen as a direct compliment to the yellow that was chosen to illustrate happiness. The yellow evoked peace and calm, whereas the violet represents the uneasiness and fear that accompany anxiety leading to depression.

The anger illustration shows the last emotion that is portrayed. The red illustrates the intensity within the emotion of anger. Anger is adolescents can stem from many causes. Anger is a severe and prevalent form of emotion dysregulation wherein even minor provocations elicit responses that range from mild annoyance to rage. Often arising in response to experiencing frustration, anger is one of the earliest emerging and most commonly occurring mental health symptoms. Cognitive control impacts an individual's ability to regulate emotions and alter behavioral responses and often begins to reach adult-like levels during adolescence. (Hawes)

Art has been determined to be an discipline that increases focus and cognitive skills. It also has the side effect of increasing a teen's ability to achieve greater emotional control.





Figure 67- Infographic enlargement

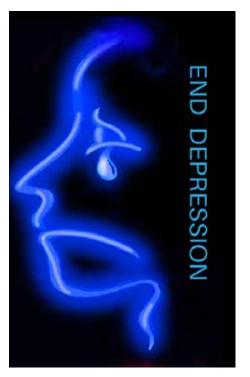
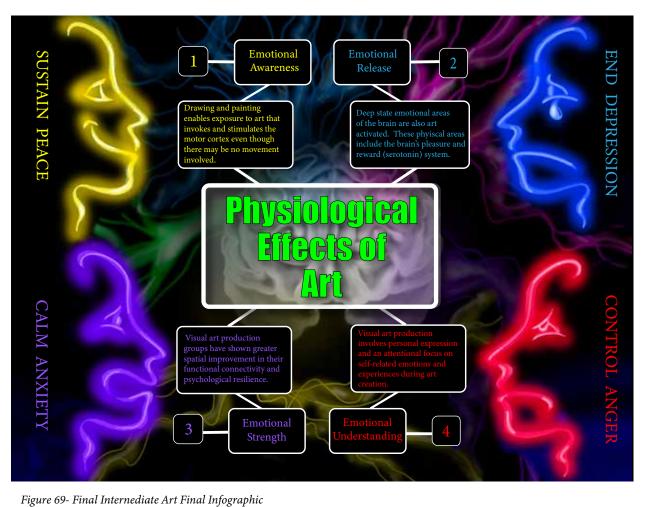


Figure 66- Infographic enlargement



Figure 68- Infographic enlargement





Advanced Level Spiritual Benefit

Art improves not only emotional, and physical health, but also spiritual health as well. As Christians, we know spiritual health is our core. It drives our emotional and physical self. One of the ways art affects our spiritual being is through a process called Mindfulness-based Art Therapy.

Mindfulness-Based Art Therapy or (MBAT) combines mindfulness practices with art therapy to promote health, wellness, and adaptive responses to stress.

Mindfulness-based stress
reduction programs have been
demonstrated to reduce anxiety
symptoms in people with generalized
anxiety disorder. However, the
benefits of MBAT specifically—not
just in clinical anxiety disorders,
but also for routine day-to-day
anxiousness—have received little

attention until recently. (Beerse)

Mindfulness-based art therapy
(MBAT) is based on Kabat-Zinn's
mindfulness meditation and reflects
on mindfulness-based stress
reduction (MBSR), Monti's MBAT and
the self-regulation theory. The critical
element in this theory is to equip
artists with the ability to cope that
can mature the ego harmoniously
by subjectively and objectively
expressing the physical and
psychological pain they face. (Jang)

A perfect method of dealing with depression and anxiety is the use of mindful art therapy. It helps in making a positive impact on your mental wellbeing. It has been a useful tool for psychology. One study shows that this method is so much better than using medicine and more durable than drugs. This is the reason why a lot of psychiatrists and psychotherapists started using this method. It has shown good results over the period. (Brown)

MBAT has slowly gained some recognition as a tool for improvement in the field of psychology. It is also termed as "focusing-oriented art therapy" where the emphasis is laid upon shifting focus as a vital part of the experience. MBAT involves the eagerness to get engrossed in an enriching creative experience and flow with what seems to want to happen. It can be perceived as a sense of flowing with substances, which reliably led to a new idea or imagination and also a learning experience. (Paul)

MBAT is a fantastic opportunity for students to increase their focus and learn to be more introspective. From a Christian standpoint, MBAT gives adolescents the opprtunity to connect more deeply in their relationship with their Heavenly Father. As adolescents pursue advanced art level challenges and abilities, they benefit greatly from being able to increase their self-

awarenss through MBAT. This is an effective learning strategy for any level of art, but it is especially important for the adolescent who wants to dig into art more deeply.

Mindfulness-based art therapy even helps in improving psychological wellbeing like understanding the scene of life, improving their state of concentration, helping to aid focus, increase the growth of grey matter in the brain, increase the level of cognitive of problem-solving, making you want to trust and accept yourself more, and developing yourself every day. You will also be more aware of your emotional state. It will give you the ability to see and solve issues, while practicing more self-control. It will make you more attentive to your thoughts, feelings, and moods. It futher makes us explore our potential in the scene of art-making and find out the diversity of ways to portray your style. (Brown)



Looking inward allows us to trace
the past and glimpse what could be
part of the future. Christians know
each has an ultimate purpose since
God said, "For I know the plans I
have for you," declares the Lord,
"plans to prosper you and not to harm
you, plans to give you hope and a
future." (Jer. 29:11) We know that
God will use everything in our lives
to our benefit; "And we know that in
all things God works for the good of
those who love him, who have been
called according to his purpose."
(Rom. 8:28)

This project is an opportunity to be able to visualize God's leading through the trials of life. All of the horrible moments used for good, and all of the pain used for His glory become more clear. The source verses for the inner personality or soul project are from 2 Corinthians, "For God, who said, 'Let light shine out of darkness,' made his light shine in our hearts to give us the light of the

knowledge of God's glory displayed in the face of Christ. But we have this treasure in jars of clay to show that this all-surpassing power is from God and not from us. We are hard pressed on every side, but not crushed; perplexed, but not in despair; persecuted, but not abandoned; struck down, but not destroyed."

(2 Cor. 4:6-9)

These verses serve as a reminder that it is our inner self that reflects God's light and serves as a reminder of the hope that all Christians have through Jesus Christ.

"Therefore we do not lose heart.

Though outwardly we are wasting away, yet inwardly we are being renewed day by day. For our light and momentary troubles are achieving for us an eternal glory that far outweighs them all. So we fix our eyes not on what is seen, but on what is unseen, since what is seen is temporary, but what is unseen is eternal."

(2 Cor.4:17-18)



Figure 70-Final Inner Personality Portrait-"My Soul" by Nanette Cross

The concept of making abstract ideas concrete is foundational in art and causes the adolescent to access higher order learning to achieve the desired results.

The finished infographic represents the journey that is undertaken during the completion of this project. This inner personality portrait is characterized by an abstract glass sculpture that has been broken and crushed. Over time, it has been tempered and fused by "fiery trials" meant for my personal sactification. It was broken to be destroyed. It was done for the purpose of spiritual improvement.

The arrow surrounding the infographic title points the way to the beginning of the inner personality project. The alliterated words plan, process, polish and present, describe the steps that need to be taken to complete the piece. The first panel shows the beginning where the idea is drawn out as a rough sketch. The

second panel shows the studio art piece in painted physical form. The third panel shows the beginnings of air brush technique that was applied in Photoshop. The last and final panel shows the finished product as it reflects the supernatural Light of God. This piece clearly shows the power and providence of God as He takes that which is broken, and causes it not just to become useful, but to become art.

Each section has an explanation of both the steps that were taken to finish the piece as well as the benefit to the adolescent. Colors for the panels were limited to reflect colors in the art piece.

The sparkles in the background connect to the sparkles on the studio art piece. The darks and light are meant to contrast so that the light becomes easily visible. The white line around the outside is meant to wrangle all the elements together into one unified piece.

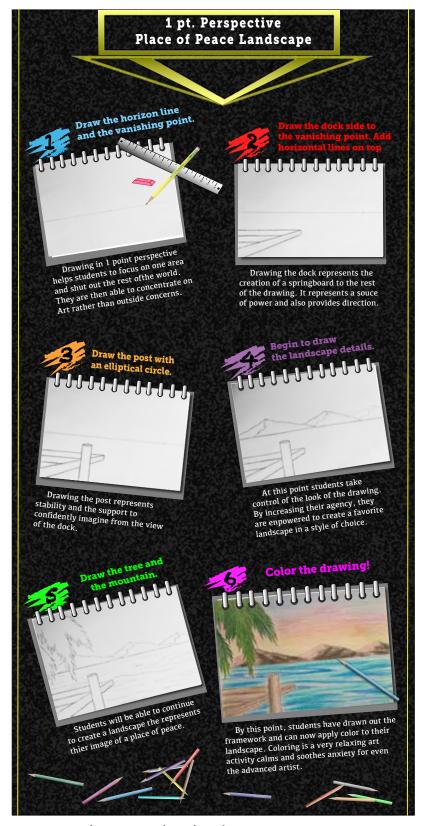
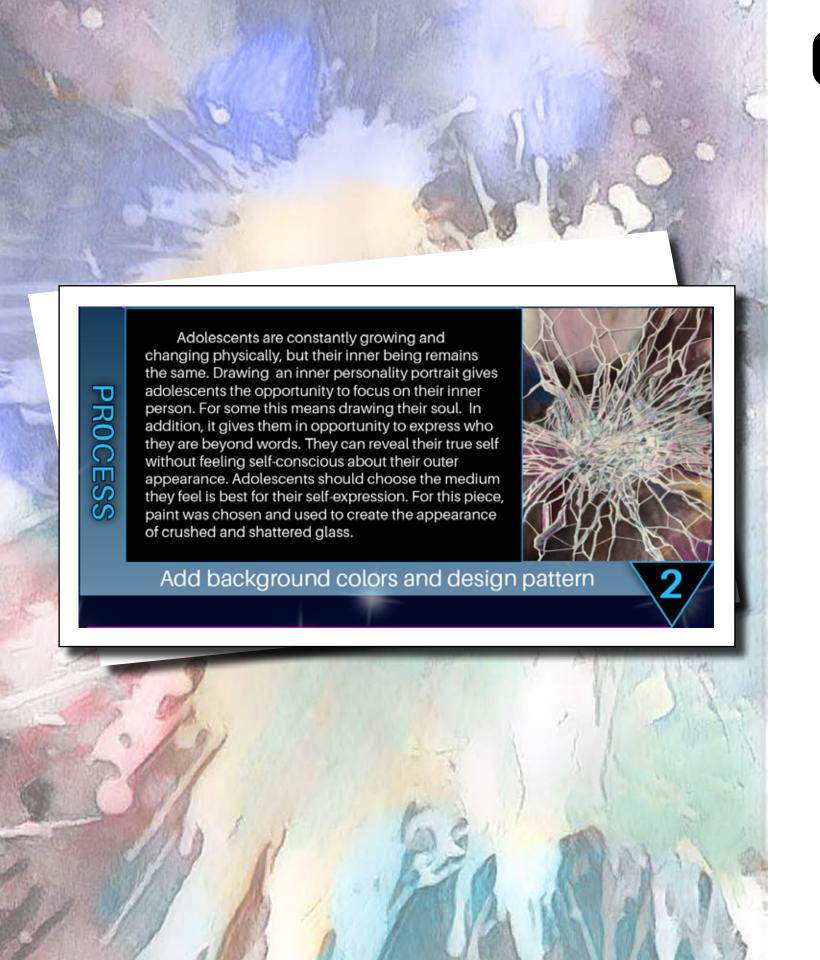


Figure 71-- Final Inner Personality Infographic



Chapter 5

Conclusion

In summary, the current research shows that the period of human development termed adolescence, can put teens at risk. The brain structure changes significantly from childhood to adolescence in terms of myelination and synapse pruning. Hormones of puberty, together with pressures from the external environment, reshape the central neural system. These developmental processes and abnormalities may trigger and/or mediate the onset and progression of anxiety disorders in adolescence. (Xie) For this reason, disorders are a concern. Adolescence can be a period of confusion and uncertainty. It can also be a period where teens develop disorders that can stay with them for life if there is no type of intervention.

Many risk factors can contribute to anxiety and depression for adolescents. Increased hormone levels, uneven physical development, unreasonable expectations and overdramatic perspectives of social situations lead teens to feel increased levels of discomfort. Teens will try to find a way to alleviate this discomfort even if it is distructive. They may turn to drugs, alcohol, sex, and violence to seek relief. For some teens, these temporary fixes are not enough. They increasingly consider suiside to end the pain they are experiencing. They need positive solutions.

We know as Christians that Jesus alone can satisify our emptiness but even Christian teens suffer with anxiety and depression related to hormonal changes.

They need a positive solution. Art as Therapy has a long proven history of causing relaxation and creating a release from stress. The rest and relief it gives can be a much needed tonic



for teens. Taking a break from stress enables teens to feel encouraged, confident and infused with hope.

They then tend to adopt a "can do" attitude instead of accepting defeat.

One of the means that has been suggested to combat anxiety and depression in adolescents is through art. Research in School-Based Art Therapy has been widely discussed in recent years, and the number of studies that examine staff perceptions and the special characteristics of art therapy within the education system has risen considerably. School-based art therapy was seen as having specific advantages according to the participants. Having a therapeutic hour during a stressful school day was considered to give these students an opportunity to relax, and the art therapy room was perceived as a shelter. In addition, when the therapist was perceived as a supportive figure, the whole school experience tended to be perceived

as supportive or enabling greater acceptance. (Harpazi)

Art has been a necessary vehicle in all cultures to share states of attachment, separation or loss. Aesthetic experience is our ongoing sense of the quality of the formal organization of our world, and this term applies to both our perception of the external world and our subjective experience. We can say that our aesthetic experience deeply influences our sense of self. Art has the potential to bring together intellectual, affective and unconscious identification, revealing itself as an indispensable instrument to help one understand and structure one's own suffering. (Fernández-Cao)

I personally believe that art
is one of the strongest tools for
strengthening and increasing selfefficacy in adolescents. I know this
because I know how it helped me see
my worth as an adolescent struggling
to come to terms with growing up in a

public school environment that was not very hospitable to Christians or anyone who was considered different from the crowd.

This project has been a challenge for me as well as a personal passion.

I have always known art had unique qualities but I was not aware of the extent of those qualities. I have always known that art creates a calmness within, but I never realized how much art could affect the human brain and increase cognitive abilities.

I think that, as a result of this study, I will add critical thinking elements to some of my art projects.

Art has been an inextricable part of society from the beginning of recorded history. It affects our mind, body and spirit. The case studies chosen in this thesis reflect the desire to show the connection between art and improved life experience of mind, body and spirit for adolescents.

The first case study that I chose explores the emotional response

to art and the ability it has to calm the anxious adolescent. By learning to channel and release anxiety, adolescents can control their emotional response to difficult to control situations.

The peaceful landscape project that is the deliverable for this study was designed for beginning artists, but it is effective for any level of art ability. By drawing this piece, artists are able to take charge of their artwork and customize it to taste. Adolescent artists are able to engage their knowledge, creativity, and passion to create a landscape that brings them joy and peace.

The addition of coloring within the project adds another element that encourages relaxation and personal stress release.

The second case study that was chosen explores the physical effect art making has on the adolescent brain. It has been discovered that there are specific cognitive changes



and improvements that occur when an adolescent participates in art. Art enables adolescents to expand cognitve abilites problem solving, ordering and higher order thinking. The research I found showed that art increased the brain's overall function, not just spacial ability. Many different research groups have studied the effect of art on the brain. Studies have focused on many different groups, but the results have been consistantly similar. No measurable differences have been observed regarding race, sex or age and the ability of art to positively affect brain function. The deliverable associated with this study is an illustrated mind map that shows the effects art has on the brain. Adolescents love creating mind maps and the opportunity to illustrate one gives it even more appeal.

The third case study explores the effect of art on the spiritual self. My goal in this section is to illustrate and explain the connection of art with our

inner personality. Most adolescents have no idea who they are. They do not spend much time getting to know themselves. This causes them to misunderstand their value. They need to learn to look at themselves through their own eyes and not the eyes of the rest of the world.

Mindfulness is sometimes linked to Buddhism, but it is not a practice exclusive to this religion. The Bible also recommends mindfulness. In the New Testament, Paul said, "Examine yourselves to see whether you are in the faith; test yourselves. Do you not realize that Christ Jesus is in you—unless, of course, you fail the test? And I trust that you will discover that we have not failed the test."

By practicing mindfulness, adolescents can increase their understanding of themselves, their situation, and the world around them. For the Christian, is an opportunity to reflect on their relationship with God.

(2 Cor. 13:5-6)

Although the exploration of MBAT or Mindfulness-Based Art Therapy is relatively new for science, it has produced intersecting research results. All of the research reports seem to be positive, especially regarding the effects of MBAT for easing anxiety and depression. It seems to be effective for every group and age level. In image making, we also are in touch with this state of flux and transformation. Mindfulness approaches and art therapy, together, can offer a unique benefit apart from either offered in isolation. In mindful art therapy, there is a complementary meeting of work within a visual modality, the therapeutic relationship, and the practicing of mindfulness. Mindful art therapy has the potential of providing a different type of framework and experience, including conditions for a safe, contained exploration of an individual's experiences and feelings, within the therapist-client

relationship, in which mindfulness is practiced. In art therapy, specifically, the individual's visual expression is valued and mindful qualities are directly experienced through art making. (Brown) Spiritual practices on a daily basis cleanse our physical body and mind of accrued stress and antagonistic impressions. With regular practices, it will be perceived as raising our thought process, improving body flexibility and inner balance and lastly enhancing our self-awareness, thereby making us healthy. Spirituality gives inner strength to handle arduous situations and to remain happy. When our inner self attains its serenity and calmness, it gets quickly dispersed outward thereby making us responsible human beings. (Paul)

The project I developed for
this study was to create an inner
personality portrait. This process
affected me more than any of the



others. It was deeply personal because it was not theory. It was me. I thought that as an adult that I have myself figured out by now but I learned more. As a result of this project, I was able to come to terms with some spiritual situations God has allowed for my growth.

Biblical truth adds a powerful element to Art as Therapy. I chose some of my favorite counseling authors to support the Biblical view we should consider for our Christian adolescents who are dealing with anxiety and depression. Little is gained by telling a teen not to worry or be fearful. They need to understand why they can be at peace. We need to show them how to better connect with God through Jesus. God is love and as adolescents grow closer to Him, they come to understand peace. Art can be a powerful way for adolescents to connect with God. I can attest to this fact because it was a powerful

connection for me. God is the ultimate artist, and art is a gift He has given for edification and for healing. Christian art therapy integrates
Biblical principles with psychological theories. In other words, it combines soul care with emotional care. The counseling principles of soul care relate to the art world as well.

The Bible meshes well with art. Paul said, "Do not be anxious about anything, but in every situation, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus." (Phil. 4:6-7) God breathed His creativity into us so that we could achieve this goal and be fearless. Art is one means to achieve this. Throughout this paper it has been researched, supported and illustrated that art is beneficial for easing common anxiety and depression in adolescents.

Adults are responsible for the majority of the stress they experience. In our world, people are constantly striving for more. In our pursuit to serve, many have substituted achievement for knowing God and that pursuit has resulted in anxiety and depression. While it is important as Christians to do our best, achievement is not the mandate God gave to Christians.

Our Savior was asked about the greatest commandment, and He replied: "'Love the Lord your God with all your heart and with all your soul and with all your mind.' This is the first and greatest commandment. And the second is like it: 'Love your neighbor as yourself.' All the Law and the Prophets hang on these two commandments." (Matt.22:37-40) John said, "Dear friends, let us love one another, for love comes from God. Everyone who loves has been born of God and knows God.

Whoever does not love does not

know God, because God is love." (I John 4:8) Loving God comes as a result of knowing God. In order to know God, one must be still. In Psalm 46:7, Psalmist states, "The Lord Almighty is with us;" (Psalm 46:7) In verse 10, he repeats the words of God, explaining, "He says, 'Be still, and know that I am God;" (Psalm 46:10) Instead of listening to God, Christians have followed the world's plan of pursuing achievement. Jesus commended Mary for being still so that she could know God. "Martha, Martha," the Lord answered, "you are worried and upset about many things, but few things are needed—or indeed only one. Mary has chosen what is better, and it will not be taken away from her." (Luke 10:41-42) Jesus corrected her, not because she was doing the wrong thing, but because she was doing it the wrong way. He knew that Martha was on a path that would lead her to experience anxiety and depression.

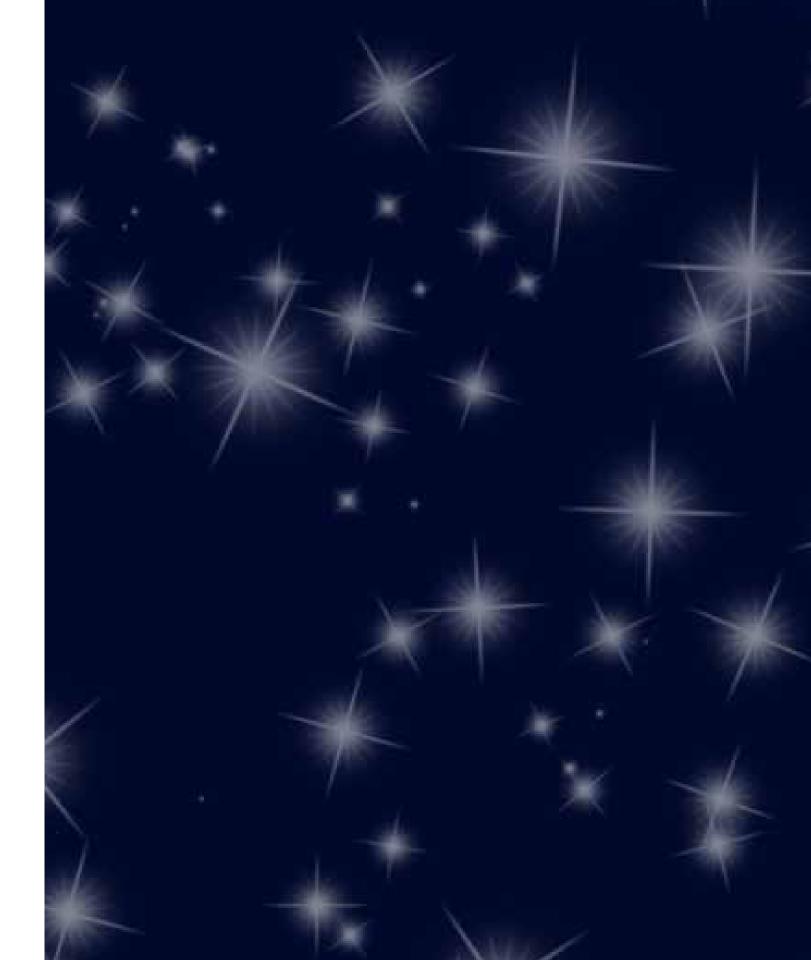
Modern Christians fall into the same pattern. In our pursuit to serve, many have lost sight of purpose and substituted service for knowing God, just as Martha did when she rebuked Mary for being still and listening to the Lord. The pursuit of service over stillness has resulted in anxiety and depression. Not only have adults chosen this way of life, but they have passed it on to their children. Pressure to acheive high academic status to attain perceived success as adults causes stress for adolescents.

As this generation becomes overly burdened pursuing achievement, they also experience anxiety and depression. While many activities can relieve the symptoms of stress, art making causes the artist to be still and just breathe. This release alleviates stress while allowing the artist to focus on the present. The focus that art encourages builds up adolescents' brain skills and enables success in problem solving.

In addition to the emotional and physical benefit, art has a further spiritual effect. The opportunity to look within and discover hidden ability can build confidence for an adolescent. It broadens their perspective and helps them achieve inner personal balance.

Accessing the spacial part of the brain even causes adolescents to lose track of time. For the Christian adolescent, the stillness and timelessness of art making creates an environment for the adolescent to slow down, sharpen their spiritual focus, and connect with God.

The opportunity to find stress release and stillness, enables art to become the means for the adolescent to know God and know peace. All of these facts together show the amazing ability of Art as Therapy to have the positive emotional, physical, and spiritual effect of calming general anxiety and depression in adolescents.





Work Cited

- Adolescent Wellness Academy. TEEN & ADOLESCENT MENTAL HEALTH FACTS & STATISTICS. 2018. 29 May 2021.
- Alden, Jason. The Drawing Studio. 2 December 2018. 12 August 2021.
- Allender, Dan B. The Cry of the Soul: How Our Emotions Reveal Our Deepest Questions About God. Tyndale House Publishers, Carol Stream, IL., 1994.
- Berberian, Marygrace, and Benjamin Davis. Art Therapy Practices for Resilient Youth: A Strengths-Based Approach to at-Promise Children and Adolescents. Routledge, New York, NY, 2020.
- Beerse ME, Van Lith T, Pickett SM, Stanwood GD. Biobehavioralutility of mindfulness-based art therapy: Neurobiological underpinnings and mental health impacts. Biol Med (Maywood). 2020 Jan,122- 130.
- Brown, Sarah. Mindfulness-Based Art Therapy Benefits. 18 August 2021. 18 October 2021.
- Bolwerk, A., Mack-Andrick, J., Lang, F. R., Dörfler, A., & Maihöfner, C. How Art Changes Your Brain: Differential Effects of Visual Art Production and Cognitive Art Evaluation on Functional Brain Connectivity. 2014. PLOS One.
- Carsley D, Heath NL. Effectiveness of mindfulness-based colouring for test anxiety in adolescents. School Psychology International. 2018;39(3):251-272.
- Cook, Mary N et al. "Adolescent depression: an update and guide to clinical decision making." Psychiatry (Edgmont (Pa.: Township)) vol. 6,9 (2009): 17-31.
- Cuncic, Arlin. The Benefits of Mindfulness-Based Art Therapy. 16 July 2021. 12 August 2021.
- Dean, Michelle. Art Therapy and Adolesents. 15 November 2016. 18 October 2021.

- Demarin V, Bedeković MR, Puretić MB, Pašić MB. Arts, Brain and Cognition. Psychiatr Danub. 2016 Dec;28(4):343-348. PMID: 27855424.
- De Rijke, Victoria. Art and Soul: Rudolf Steiner, Interdisciplinary Art and Education. vol. 25;25.;, Springer, Cham, Switzerland, 2019.
- Dorling, Susan. 20 Beautiful Self-Portraits by Famous Artists, n.d. 21 July 2021
- Dunn, Greg A. Fresh Photons. 12 July 2016. 5 August 2021.
- Edwards, Michael. "Art Therapy and Art Education: Towards a Reconciliation." Studies in Art Education, vol. 17, no. 2, 1976, pp. 63-66. Accessed 9 June 2021.
- Fernández-Cao, Marián López et al. "PROJECTA: An Art-Based Tool in Trauma Treatment." Frontiers in psychology vol. 11 568948. 18 Dec. 2020
- Finkel, Daniela, and Michal Bat Or. "The Open Studio Approach to Art Therapy: A Systematic Scoping Review." Frontiers in psychology vol. 11 568042. 20 Oct. 2020, doi:10.3389/fpsyg.2020.568042
- Ghandour RM, Sherman LJ, Vladutiu CJ, Ali MM, Lynch SE, Bitsko RH, Blumberg SJ. Prevalence and treatment of depression, anxiety, and conduct problems in U.S. children. The Journal of Pediatrics, 2018. October 12, 2018
- Gharib, Malaka. Feeling Artsy? Here's How Making Art Helps Your Brain. 11 January 2020. 21 July 202.
- Gholipour, Bahar. Giant Artwork Reflects The Gorgeous Complexity of The HumanBrain. 28 June 2016. 5 August 2021.
- Harkin, Katie. How Art Changes the Brain. 6 August 2018. 4 August 2021.
- Harpazi, Shir et al. "Perceptions of Art Therapy in Adolescent Clients Treated Within the School System." Frontiers in psychology vol. 11 518304. 9 Nov. 2020, doi:10.3389/fpsyg.2020.518304
- Heenan, Deirdre. Working Across Boarders to Promote Positive Mental Health and Well-Being. Disability & Society, 24:6, pages 715-726.



- Heenan, Deirdre. Working Across Boarders to Promote Positive Mental Health and Well-Being. Disability & Society, 24:6, pages 715-726.
- Hogan, Susan. Healing Arts: The History of Art Therapy, Jessica Kingsley Publishers, 2001.
- Hyde, Margaret O., and Elizabeth H. Forsyth. Stress 101, 2nd Edition: An Overview for Teens, Lerner Publishing Group, 2013.
- Isaacs, David Parental Love, Journal of Pediatrics and Child Health, 10.111 pc.12854,51, 3, (241-242), (2015).
- Jang, Seung Ho et al. "Effects of Mindfulness-Based Art Therapy on Psychological Symptoms in Patients with Coronary Artery Disease." Journal of Korean medical science vol. 33,12 e88. 19 Mar. 2018,
- Karkou, Vicky. Arts Therapies in the Treatment of Depression. Routledge, 2018,
- Isaacs, David Parental Love, Journal of Pediatrics and Child Health, 10.111 jpc.12854,51, 3, (241-242), (2015).
- Kaimal, Girija (2019) Adaptive Response Theory: An Evolutionary Framework for Clinical Research in Art Therapy, Art Therapy, 36:4, 215-219
- Kaimal, Girija, Ayaz, Hasan, Herres, Joanna, Dieterich-Hartwell, Rebekka, Makwana, Bindal, Kaiser, Donna H., Nasser, Jennifer A., F., Coloring, Doodling, and Free Drawing, The Arts in Psychotherapy, Volume 55, 2017, Pages 85-92, ISSN 0197-4556.
- Kaufman, James C., Vlad P. Glaveanu, and John Baer. Cambridge Handbook of Creativity Across Domains. Edited by James C. Kaufman, Vlad P. Gläveanu, and John Baer. Cambridge University Press, Cambridge, 2017.
- Leigh, Eleanor, and David M Clark. "Understanding Social Anxiety Disorder Adolescents and Improving Treatment Outcomes: Applying the Cognitive Model of Clark and Wells (1995)." Clinical child and family psychology review" vol. 21,3 (2018): 388-414.
- Leobrera, Sandy, Lynn Balela. Counselling Adolescents, Society Publishing, 2019.

- Malchiodi, Cathy A., and William Steele. Trauma-Informed Practices with Children and Adolescents. Taylor and Francis, 2012.
- Malchiodi, Cathy A. Handbook of Art Therapy. Guilford Press, New York, 2012.
- Manickam, Sam. "Integrative Art Therapy in Adolescents: An Experiential Study." Teens: Journal of Teenage Care & Premarital Counseling, 1, 35-40. (2000)
- Monti, Daniel A., and Caroline Peterson. "Mindfulness-Based Art Therapy (MBAT)." Integrative Cancer Therapies, Mar. 2003, pp. 81–83,
- Moon, Bruce L. The Dynamics of Art as Therapy with Adolescents. Springfield: Charles C. Thomas Ltd, 2012.
- NIDA. "What's the Connection Between Art and Brain Development?." National Institute on Drug Abuse, 17 Nov. 2020, https://teens.drugabuse.gov/blog/post/ whats-connection-between-art-and-brain-development Accessed 27 Jun. 2021.
- Nilsson, Jeff. Rockwell Finally Appears as Himself in Triple Self-Portrait. 8 November 2017. 12 August 2021.
- Otto, Frank. At Any Skill Level, Making Art Reduces Stress Hormones, 14 June 2016, 29 October 2021.
- Palmer, Frederick. Art and the Young Adolescent. Pergamon Press, New York; Oxford;, 1970.
- Pamela Newland, B. Ann Bettencourt, Effectiveness of Mindfulness-Based Art Therapy for symptoms of anxiety, depression, and fatigue: A systematic review and meta-analysis Complementary Therapies in Clinical Practice, Volume 41, 2020.
- Paul, Moitreyee. Self-Healing Through Mindfulness-Based Art-Therapy (MBAT). 26 July 2021. 18 October 2021



- Perou R, Bitsko RH, Blumberg SJ, Pastor P, Ghandour RM, Gfroerer JC, Hedden SL, Crosby AE, Visser SN, Schieve LA, Parks SE, Hall JE, Brody D, Simile, CM Thompson WW, Baio J, Avenevoli S, Kogan MD, Huang LN. Mental health surveillance among children United States, 2005—2011.

 MMWR 2013;62 (Supplement: May 16, 2013):1-35.)
- Rappaport, Laury. Focusing-Oriented Art Therapy: Accessing the Body's Wisdom and Creative Intelligence, Jessica Kingsley Publishers, 2008.
- Richman-Abdou, Kelly. Evolution of Picasso's Iconic Self-Portraits From Age 15 to 9015 December 2016. 12 August 2021.
- Riley, Shirley. Contemporary Art Therapy with Adolescents. Jessica Kingsley Publishers, 1999.
- Roland, Nicky. Mindfulness and Art Therapy Article. 1 June 2014. 12 August 2021.
- Rolling, James Haywood Jr. (Editor) (2017) Art as Therapy, Art Education, 70:5, 4-5, DOI: 10.1080/00043125.2017.1335521
- Romantic Portraits. Portraits of Romanticism. 10 October 2014. 12 August 2021.
- Samuels, Michael, M.D. and Rockwood-Lane, Mary, Ph.D., Healing with the Arts: A 12-Week Program to Heal Yourself and Your Community. New York: Simon and Schuster, 2013.
- Segev Idan, Martinez Luis M., Zatorre Robert J., Brain and Art, Frontiers in Human Neuroscience, vol. 8 2014, p.465
- Soonja Kim, Junghee Ki, A case study on the effects of the Creative Art Therapy with stretching and walking meditation—Focusing on the improvement of emotional expression and alleviation of somatisation symptoms in a neurasthenic adolescent, The Arts in Psychotherapy, Volume 41, Issue 1, 2014, Pages 71-78, SSN 0197-4556,
- Solara Mental Health. "Understanding the Relationship Between Art and the Brain", 14 October 2021.

- Stewart, Jessica. Spectacular Visualizations of Brain Scans Enhanced with 1,750 Pieces of Gold Leaf. 12 April 2017. 5 August 2021.
- Swerin, Michelle. MINDFULNESS BASED ART THERAPY Clinical and practical applications for children and families. 1 October 2019. 12 August 2021.
- Tripathi, Nishi. (2016). Effect of Art Therapy ans Counseling on Adoescents. 10.13140/RG.2.2.30156.41600.
- Vaartio-Rajalin, Heli et al. "Art making and expressive art therapy in adult health and nursing care: A scoping review." International Journal of nursing sciences vol. 8,1 102-119. 28 Sep. 2020
- Waller, Diane. "Art Therapy for Children: How It Leads to Change." Clinical Child Psychology and Psychiatry, vol. 11, no. 2, Apr. 2006, pp. 271–282
- Webster, Andrew. Fine Art Today. 1 June 2017. 12 August 2021.
- Wineapple, Devora. Mindfulness-Based Art Therapy (MBAT). 2017. 29 October 2021.
- Xie, Shuqi et al. "Adolescent anxiety disorders and the developing brain: comparing neuroimaging findings in adolescents and adults." General psychiatry vol. 34,4 e100411. 4 Aug. 2021
- Zaidel DW. Art and brain: the relationship of biology and evolution to art. Prog Brain Res. 2013;204:217-33. doi: 10.1016/B978-0-444-63287-6.00011-7. PMID: 24041326.
- Zambon, Kat. How Engaging with Art Affects the Human Brain. 12 November 2013. 4 August 2021.
- Zeki, Semir. "Art and the Brain." Daedalus, vol. 127, no. 2, The MIT Press, 1998, pp. 71-103,
- Zondervan NIV Study Bible. Full ref. ed. Kenneth L. Barker, gen. ed. Grand Rapids, MI: Zondervan, 2002.
- Zoom on Contemporary Art. NORMAN ROCKWELL, TRIPLE SELF-PORTRAIT, 1960 – #illusthursday. 1 March 2018. 12 August 2021.

