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Art Therapy for Enhancing Academic Experience of Male High School Freshmen

A Dissertation Submitted by

Kelvin Ramirez

In partial fulfillment of the requirements for the degree of Doctor of Philosophy

Lesley University
2013

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Graduate School of Arts & Social Sciences
Ph.D. in Expressive Therapies Program

DISSERTATION APPROVAL FORM

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Dissertation Title: Art Therapy for Enhancing Academic Experience of Male High
                        School Freshmen

Approvals

In the judgment of the following signatories, this Dissertation meets the academic
standards that have been established for the Doctor of Philosophy degree.

Dissertation Committee Chairperson: _____ 10/22/13
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Final approval and acceptance of this dissertation is contingent upon the candidate's
submission of the final copy of the dissertation to the Graduate School of Arts and Social
Sciences.

I hereby certify that I have read this dissertation prepared under my direction and recommend
that it be accepted as fulfilling the dissertation requirement.

_____
                Dissertation Director

I hereby accept the recommendation of the Dissertation Committee and its Chairperson.

_____
        Dean, Graduate School of Arts and Social Sciences

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ABSTRACT

The aim of this study was to assess the efficacy of group art therapy interventions in improving social and emotional issues for male high school freshmen. The Behavioral Assessment System for Children Second Edition (BASC-2) was used to measure academically tracked high school freshman ($n = 80$) receiving the 12 week intervention in a group setting in comparison to an academically matched control group ($n=76$). Independent sample t-tests compared participants in the Honor, Average and At Risk Tracks who received art therapy versus participants who did not. The findings indicate that for participants in the honors track, those receiving art therapy improved on Inattention/Hyperactivity ($t_{(51)} = 1.854$, $p<.035$) more than those in the control group. For participants in the Average Track, Personal Adjustment ($t_{(50)} = 2.086$, p<.021) and Self-Esteem scores ($t_{(50)} = 2.762$, p<.004) improved more for art therapy participants than for those in the control group. No statistically significant differences were found for participants in the At-Risk track. Participant responses collected through five prompts aimed to assess participant's perceptions regarding elements of their art therapy intervention experience. Qualitative findings were analyzed within academic track and suggested the efficacy of art therapy for ventilating frustrations, processing daily challenges and mediating emotions. Overall, eight themes emerged; sense of ownership, cathartic release, introspection, ventilation of negative feelings, expression of positive affect, fantasy or future projection, concrete descriptors and change in affect. Eighty-six percent of participants in the Honors Track art therapy group expressed positive affect when describing their emotions post art creation. Responses from the Honors Track participants were classified into four themes; ventilation of negative emotions, expression of positive affect, concrete descriptors and use of

symbolic language. For participants in the Average Track, 80% of responses indicated positive

feelings after creating the art work. Four themes emerged from Average Track participant

responses; sense of ownership, ventilation of negative feelings, expression of positive affect and

concrete descriptors. Although 42% of At-Risk Track participants reported a sense of ownership

directly after creating the art piece, only 17% continued to express such ownership when

reflecting about the artwork after several weeks. After participating in art therapy groups,

participants reported feeling "*more relaxed,*" "*successful and confident.*"

CHAPTER 1

Introduction

The disappearance of artistic expression from academic settings is an increasing problem exacerbated by policies that incentivize standardized tests scores by rewarding high performing schools and penalizing others. As a result of such policies, educators place greater emphasis and dedicate a larger percentage of instructional time on subjects like mathematics and language arts which are deemed as more important and are highly testable, at the expense of creative forms of learning and expression. Unfortunately, the unrealistic demands placed on educators, create an atmosphere of tension and increased anxiety in which student learning is hindered and the evaluation of progress distilled into the results on a standardized test. Incorporating the arts within a classroom setting builds a supportive classroom community, enhances student learning, encourages emotional expression and fosters the development of intrinsic motivation (Cole, Sugioka & Yamagata-Lynch, 1999). The disappearance of artistic means of expression from education may be a possible explanation for an increase in pathology, particular anxiety in school aged children. For educators, an awareness and focus on the mental and emotional well-being of students may aid in the prevention of academic difficulties, promote the overall well-being of students and buffer children and adolescents from potential mental health problems. This research study looks at how the introduction of art-based interventions might address the growing need for social emotional indicators.

Poverty

The effects of poverty on childhood development—whether physical, intellectual or emotional—cannot be understated; they are cumulative, detrimental and longstanding. In a

child's development, consequences at one stage can hinder development at a later stage

(Yoshikawa, Aber & Beardslee, 2012). Poverty is a critical risk factor for many of the mental,

emotional, and behavioral disorders of children and youth (National Research Council &

Institute of Medicine [NRC & IOM], 2009).

The mechanisms of poverty that affect children and families operate on multiple levels.

On the individual level, poverty increases both parent and child stress, impacts the quality of

nutritional intake, reduces access to healthy food options, and negatively affects parent and child

neurophysiology (Grant et al., 2006). On a relational level, poverty can negatively influence

parental behavior, affect parent/child security, place stress on family or peer relationships,

increase exposure to violence and strain adult and parent/child relational conflict (Grant et al.,

2006). On the institutional level, impoverished communities are plagued with low educational

quality in classrooms and schools, low quality child care, high job instability and low job quality,

increased neighborhood dangers, lack of collective efficacy, limited health care access and a

general lack of resources (Grant et al., 2006). For example, New York City, ranked as the largest

school district in the country, contains three of the nation's poorest neighborhoods, clustered in

the South Bronx within the poorest congressional district in the United States. In the South

Bronx, 38% of residents and 48% of children live below the poverty line. The racial disparity of

those affected by this poverty is also daunting; 30% of the residents in the South Bronx are

African Americans and 63% are Latinos (Retrieved from http://articles.nydailynews.com/2010-

09-29/local/27076750_1_poverty-rate-poverty-line-south-bronx).

The stressors that accompany poverty are multitudinous, and there are direct associations

between poverty and poor physical and mental health. The prevalence of obesity among high

school students is higher in the South Bronx than in the rest of New York City (Matte et al.,

2007). Dolnick (2010) noted that the obesity problem is paradoxically linked to severe hunger

related problems. The incidence of obesity were high among children in a study conducted by

Schuster et al. (2012), with obesity among whites at 17%, and nearly double among blacks and

Latinos, 33%. Several additional health factors (for example, poor air quality, high rate of

sexually transmitted infections, neighborhood violence and limited access to recreational

facilities) have converged in the South Bronx making it "one of the unhealthiest of New York's

62 counties" (Retrieved from http://www.countyhealthrankings.org/app/new-

york/2012/bronx/county/1/overall).

In a study by Schuster et al. (2012) on the racial and ethnic disparities of developmental

risk factors among fifth graders, the authors found significant differences between black children

and white children on all measures (witnessed violence in past 12 months, victimization by

peers, aggression in past 30 days, substance abuse, injury prevention, social issues, exercise and

obesity, health status and quality of life) and between Latino children and white children on most

measures. According to Schuster et al. (2012), "Household income, household highest

educational level, and the child's school were the most substantial mediators of racial and ethnic

disparities" (p.735). The importance of a child's school in moderating such disparities suggests

that school-based interventions may have value. Particularly, interventions that address

potentially detrimental consequences of low socioeconomic status and adverse school

environments may help reduce racial and ethnic differences in a child's physical and mental

health (Schuster et al., 2012, p.735). Poverty and related disparities matter because childhood

illness, mortality and health-related problems during childhood may have lifelong implications; either by establishing patterns that persist into adulthood or by exerting long-term biological influences. According to Felitti and Anda (2009), "biomedical researchers increasingly recognize that childhood events, specifically abuse and emotional trauma, have profound and enduring effects on the neuroregulatory systems mediating medical illness as well as on behavior from childhood into adult life" (p. 2).

The Educational Landscape

Despite the fact that schools have continuously struggled with student failure and attrition, the turn of the new century has seen increased pressures for schools to moderate student drop-out rates (Carey & Carifio, 2012). According to Chapman (2009) and Nettles (2009), in the current political and economic environment high-cost interventions designed to keep *at-risk* students in school are often among the first programs eliminated. Students in the South Bronx, which are predominately students of color, are faced with issues of gangs, drugs and violence, which inadvertently complicates their educational experience. According to Heron, Hoyert, Xu, Scott and Tejada-Vera (2008), violence is the second largest cause of death among adolescents and the leading cause of death for black male adolescents. In addition, Schuster et al. (2012) maintained that "peer victimization and exposure to community violence are linked to dysregulated physiological stress responses" (p.742) (for examples see Cooley-Quille, Boyd, Frantz & Walsh, 2001; Knack, Jensen-Campbell & Baum, 2011; Suglia, Staudenmayer, Cohen & Wright, 2010; Vaillancourt, Duku, Becker et al., 2011). Reijntjes, Kamphuis, Prinzie and Telch (2010) asserted that peer victimization and neighborhood violence are associated with considerable mental and physical health problems among youth. Data from The New York City

Department of Education (2009) showed citywide drop-out rates for Black and Latino students at 11.6% and 14.5%, respectively. For White and Asian students the citywide drop-out rates were 7.2% and 5.8%, respectively, and for Native American students the drop-out rate was 15.3%. In addition, African-American and Latino males are more likely to be classified as mentally retarded or to be identified as suffering from a learning disability and placed in special education (Losen & Orfield, 2002). Conversely, African-American and Latino males are more likely to be absent from gifted and talented programs, Advanced Placement and honors courses, and international baccalaureate programs (Noguera, 2008). According to Dobb (1999):

> Since the widespread use of standardized tests began in the 1920s, the system of classification has become more precise: Testers can obtain numerical scores representing intelligence and achievement levels, and as a result students can be classified as gifted, superior, average, below-average, defective, or dull. Because of general cultural or language backgrounds that have left [minority students] relatively unprepared to do well in the American educational system, many minority group members tend to score lower on these tests than whites and thus receive the less exalted, more stigmatized labels. (p. 163)

"Their labels…[become] badges-filed away in cumulative folders to follow them every step of the way through public school" (Cuban, 1989, p. 783). A self-fulfilling prophecy has been set in motion, and the impact for many minority students is negative (Dobb 1999, p. 163). Special education classification can include services such as testing accommodations and a modified promotion criterion which helps the student succeed when taking tests and redefines the requirements needed for promotion to the next grade. However, according to a New York City

School Psychologist, these students, if they graduate, do so with an Individuated Educational

Plan Diploma, which negatively affects their chances of entrance into four-year universities (C.

J. Castro, personal communication, May 15, 2012).

Unsuccessful academic experiences can solidify the socio-economic contexts in which

impoverished students operate and further entrench them in poverty. Nationally, 4 million

students enter high school each year and about 1.3 million will drop out before graduation – an

average of 7,000 dropouts every day (or one dropout every 26 seconds) (Bridgeland, Dilulio, &

Morison, 2006). According to Education Week's Diplomas Count 2011 report, New York City

was considered a dropout epicenter with the highest number of dropouts in 2011: 39,669.

(Retrieved from http://www.edweek.org/ew/toc/2011/06/09/index.html). These realities create

severe financial costs for both the individual and society.

> High school dropouts, on average, earn $9,200 less per year than high school graduates
>
> ($18,343 high school dropouts and $27,963 high school graduates), and earn about $1
>
> million less over a lifetime than college graduates. Students who drop out of high school
>
> are often unable to support themselves and cost taxpayers more than $8 billion annually
>
> in public assistance programs. High school dropouts were over three times more likely
>
> than college graduates to be unemployed. For high school dropouts the unemployment
>
> rate in 2011 was 14.7%, the national average was 9.9%. Dropouts are twice as likely as
>
> high school graduates to slip into poverty from one year to the next. High school
>
> dropouts are more likely to be incarcerated (59% of federal inmates are high school
>
> dropouts). (Retrieved from the National Center for Educational Statistics at
>
> http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012006)

A Community Service Society report, entitled *Out of School, Out of Work...Out of Luck? New York City's Disconnected Youth* (Levitan, 2005), tracked trends in school enrollment and employment efforts of young people from the late 1980s. The report found that African-American and Latino youth, ages 16 to 24 years, were more than twice as likely to be out of school and out of work as their white counterparts.

The many socio-economic, environmental, developmental, academic and emotional stressors experienced by students in inner-city areas like the South Bronx require solutions. Students and educators need to develop avenues that provide them the structure to process stressors they face in socially appropriate ways while empowering them to own and direct their academic futures. Art therapy may provide students a therapeutic form of expression and coping strategies that can have an impact on staying in school. Understanding the "interconnectivity between an individual and the collective, between a person's suffering and societal imbalance, as well [as possessing] an active commitment to personal and societal transformation through advocacy for those aspects of individuals and society that are disenfranchised" (Kaplan 2006, p.31) is the fundamental ideology that bonds education and art therapy.

Several school systems in the United States have incorporated art therapy and other expressive therapies to support students' emotional and academic development (Isis et al., 2010). The incorporation of these therapeutic approaches aims to inoculate children from "the social world which has become poisonous to their development" (Garbarino 1997, p.13). These programs, which have been implemented in a variety of settings, have shown initial success in attempting to detoxify the social environment of children and aid them in overcoming the difficult realities that include emotional stressors and challenging academic criteria (Isis, Bush,

Siegel & Ventura, 2010; Nelson, 2010; Rollins, Kaiser-Ulrey, Potts & Creason, 2003) and are worth further consideration in light of the serious implications of poverty and its sequelae on students in the US.

Art Therapy

Definition and Advantages

In the most general sense, art therapy is a mental health profession that uses the creative process of art making to improve and enhance the physical, mental and emotional well-being of individuals of all ages (Retrieved from http://www.americanarttherapyassociation.org/aata-aboutus.html). Functionally, art therapy is a set of interpersonal and art-based skills used to help people come to terms with psychological, developmental, social, and behavioral stressors (Kapitan, 2010). Although art therapists work from a variety of theoretical frameworks, incorporating a plethora of clinical approaches and interventions, the medium of expression is an art form (Wadeson 2010). According to Wadeson (2010), the creative process involved in artistic self-expression helps people to become more physically, mentally, and emotionally healthy and functional, resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, handle life adjustments, and achieve insight. Art therapy is rooted in the experience of those who began the field over 70 years ago and continues to evolve. According to Kapitan (2010), art therapy is constantly reborn in the fertile soil of shared understanding that transcends individualistic conceptions of practice.

Emerging as a distinct field in the 1940s art therapy's initial foundations placed great significance on symbolization, ideas originated from Freud and Jung, (Wadeson, 2010) and grew simultaneously within the field of education and the mental health profession. As educators, like

Lowenfeld, were exploring children's artistic expressions and how this expression reflected developmental, emotional, and cognitive growth, psychologists like Prinzhorn, were becoming increasingly interested in the artwork created by their patients with mental illnesses. According to Lowenfeld and Brittain (1987), for a child, art is primarily a means of expression (p.7). According to Wadeson (2010):

> From its early psychoanalytic beginnings, the profession has branched out and diverged into existentialistic directions that hold the individual responsible and accountable, in contrast with the more deterministic forces proposed by psychoanalytic theory. The Human Potential Movement has had a strong influence, as has the resurgence of Jungian psychology. As a result, the present state of [art therapy] encompasses many frameworks and approaches (p.16).

Since its inception as a profession the inclusion of art therapy in hospitals, clinics, and rehabilitation centers has progressively increased, underscoring the recognition that the creative process of art making enhances recovery, promotes mental health, and psychological wellness (retrieved from www.aata.org). Within educational institutions, art therapy is primarily used with children who are developmentally delayed, learning disabled or socially disadvantaged, such as children from impoverished neighborhoods (Wadeson, 2010). According to Wadeson (2010), art therapy has expanded beyond clinical settings to educational institutions. Recently, some school systems have incorporated art therapy to service the needs of students dealing with behavioral, emotional and academic difficulties. Unfortunately, these same services were not fully embraced to meet the needs of mainstream general education students (Bush, 1997).

The advantages of art therapy are as unique as the individuals who seek to incorporate the healing power of creativity into their lives. The numerous benefits of art therapy and the distinctive therapeutic and counseling skills that art therapist contribute to integrated services in school systems are recognized by several scholars (For example see, Isis, Bush, Siegel & Ventura, 2010). When facilitated by a trained art therapist, the creative process has been shown to foster self-esteem and self-confidence, expand participants expressive language, increase attention span, reduce anxiety, improve social skills, accentuate group cohesion and cooperation and supporting physical, emotional, and academic milestones; aiding in the discovery and mastery of the world around them (Randick & Dermer, 2013). Adolescents can use art therapy to ease the stressors inherent in life transitions, process life events and aid in the development of both intrapersonal and interpersonal skills (Wallace-DiGarbo & Hill, 2006), increase sensitivity toward others, increase understanding of self and enhance overall quality of life (Healy & Nelson, 2007).

Similarly, Spier (2010) examined the effectiveness of a group art therapy intervention within a school setting to increase coping skills and decrease disruptive behavior in a group of six eighth-grade students at risk for making a poor transition to high school (p.75). Despite the small sample size, the study's outcomes highlighted benefits of decreased disruptive behavior and increased coping skills for the participants. Rosal, McCulloch-Vislisel, and Neece (1997) also found that art therapy activities integrated into a public school's ninth grade curriculum positively altered some student attitudes about school, family, and self. Results from the quasi-experimental design comparing pretest-posttest scores of participants ($N = 50$) were significant

($p \leq .001$) in attitudes of the students. As an intervention, art therapy is a strength-based

therapeutic approach that supports age appropriate developmental skill sets.

For school aged children, especially those negatively affected by societal, familial, and/or

interpersonal factors, art therapy may be a useful therapeutic intervention allowing students the

opportunities to not only explore their perceptions but to create alternative solutions to the

problems they face. Within an academic setting similar skill sets are developed that empower

students to critically evaluate information and decide on the appropriate action required to solve

a problem. When considering the overlaps between art therapy as an intervention and academic

success, art therapy enhances the learning environment of students by increasing emotional

language and expression as well as fostering student's capacity for academic inquiry and

evaluation.

CHAPTER 2

Literature Review

In spite of the efforts of researchers, teachers' unions, school leaders, parents, and community organizations to produce instructional strategies and innovative curricula over the years, the state of education in the United States is still frequently criticized (The State of Education in the United States retrieved from http://mary-faler.suite101.com/the-state-of-education-in-the-united-states-a80716; The State of Education in the U.S. retrieved from http://www.npr.org/player/v2/mediaPlayer.html?action=1&t=1&islist=false&id=6188690&m=6188691). Impoverished students and students of color are especially at risk by the time they enter high school (Levitan, 2005; Losen & Orfield, 2002). Their needs often encompass a combination of academic deficiencies, emotional distress, maladaptive behavior and potential delinquent tendencies (Bush, 1997). Students living in poverty must contend with violence; may suffer from poor physical health and are at greater risk of developing mental health related illnesses. Children living within impoverished communities are at greater risk of experiencing acts of violence, and thus according to Garbarino, Kostelny, and DuBrow (1991), have been found to suffer disproportionate psychological pathology when compared to their more affluent counterparts. It would be safe to infer that addressing students' emotional intelligence, the ability to regulate emotions, and student's ability to express emotions in constructive ways should have positive effects on their school experience.

Darling-Hammond (2009) noted that while some trends in education are to incorporate creative solutions to meet the needs of school aged children, other trends in education increase

the dependency on standardized test results, rewarding or penalizing teachers for student

achievement and allocating funds based on benchmark performance criteria. Brimi (2010) noted

that standardized assessments are providing an inaccurate profile of student achievement and

neglect the individual experiences of students and the realities teachers face within the

classroom. Vasquez Heilig (2010) noted that in lower performing schools, which are usually

populated by low-income and students of color, much time is devoted to test taking strategies.

Inevitably students in certain classes are denied exposure to subjects not covered by the tests.

Berliner (2009) indicated that the loss of art in the current high stakes testing environment is

problematic, because art provides an alternative means to view reality, and expands the way

students perceive the world.

Financial constraints in many schools have limited arts education, including classes such

as visual arts, music, and dance; these classes are often the first to be cut from the curriculum

(Heilig, Cole & Aguilar, 2010). Yet, Hoffman, Kantner, Colbert, and Sims (1991) pointed out,

"The goal of the visual arts … is not to make children into artists. The goal is to enhance those

abilities children bring to us, their perceptions, memories, feelings and observations about their

own world," (p. 25). Regardless of age, the creative process can provide students expressive

language, deepen insight that enhances the classroom environment and build much needed

coping skills (A Curriculum for Excellence retrieved from

www.acurriculumforexcellencescotland.gov.uk. on May 5, 2012). In fact, some schools and

school districts have partnered creative modalities such as art therapy with education to address

the needs of students. For example, the Dade County School District in Florida and the Jersey

City Public Schools in New Jersey, attempt to enhance student achievement by addressing the

emotional and psychological needs of students through the implementation of art therapy and

other creatively orientated therapeutic interventions (K-12 Schools & Art Therapy retrieved from

http://americanarttherapyassociation.org/aata-newsandinfo.html#toolkit on May 5, 2012).

According to Bush (1997), an advocate of the potential of art therapy within educational

settings:

> School based art therapists provide a range of services for students, direct and indirect,
> which require involvement with the entire educational system - students, teachers,
> administrators, and other school personnel; families, surrogate caretakers, community and
> regional agencies; resources that support the educational process; the organization,
> physical, temporal, and curricular variables that play major roles within the system; and a
> variety of other factors that may be important on an individual basis. The intent of these
> services is to promote mental health and to facilitate learning. (p. 4)

While the range of issues to be addressed for impoverished students and students of color is

seemingly overwhelming, it is not unreasonable to expect that developing self-understanding and

coping skills via the arts can have some positive impact. These benefits might even support

increased academic success, reduced delinquent behavior and an expansion of their expressive

language.

With regard to early education, Nicolopoulou (2010) noted an increased sense of urgency

for educators to rely on standardized tests, reinforced by widespread misconceptions that

research on early brain development provides a mandate for accelerating and intensifying direct

instruction in preschool. According to Elkind (2009), as a result of this falsity of thinking,

policymakers believe "that the earlier children begin to master the basic elements of reading, such as phonics and letter recognition, the more likely they are to succeed in school….kindergarten education has become heavily focused on teaching literacy and other academic skills, and preschool is rapidly following suit" (p. 7). Not only does this approach negate age-appropriate learning and learning activities (Miller & Almon, 2009), but pressure to perform can create stress in both students and teachers. New information on the long-term effects of stress-related hormones in the brain indicate that stress-related hormones can alter the physical structure of the brain in ways that impair memory, learning and mood (Banks, 2011; Chakraburtty, 2010; Helwick, 2011; Pawlak, Magarinos, Melchor, McEwen & Strickland, 2003; Stöppler, 2011).

Stress and its impact on student learning is of particular concern, and research has documented the perception of anxiety and stress in students. In a mixed method study on academic emotions, Pekrun, Gotz, Titz and Perry (2002) noted that anxiety was the emotion most often reported by high school and university students "accounting for 15% to 25% of all emotions reported" (p.3). In another study of emotion in the classroom, Pekrun et al., (2002), research findings maintained that emotions can serve to prepare students and help them sustain appropriate reactions by providing motivational and physiological energy. When students regulate emotional arousal by planning, monitoring and evaluating their own interactions, social learning may result, and negative emotions may motivate students to rely on external guidance (Pekrun et al., 2002). As summarized by Pekrun et al. (2002),

> Achievement pressure and expectancies of failure were reported as major contributors to
> emotional arousal, thus pointing to the need to enhance our students' psychological well-
> being by giving them chances to cope with excessive demands, and by increasing
> opportunities for success. (p. 3)

Depending on students' abilities to cope with stress, they may experience feelings of generalized anxiety and be unable to anchor those feeling to real world conditions or regulate this arousal. Pekrun et al. (2002) assert that students may not have appropriate sources for external guidance available to assist with those negative emotions. Considering the effects of stress on the brain, could the stressors associated with poverty diminish students' ability to accurately retain and process information?

Lopes, Mestre, Guil, Kremenitzer, and Salvovey (2012) studied the ability to evaluate and manage emotions as it relates to academic success and school behavior. In their quantitative research which focused on the role of knowledge and skills for managing emotions in adaptation to school, and social behavior and misconduct in classrooms, the authors assert that "students' ability to respect school rules and interact reasonably well with their teachers is thought to influence their capacity to learn, commitment to school, and broader socialization" (Lopes et al., 2012, p.711). Three studies conducted by Lopes et al. (2012), examined the relationship between the ability to recognize effective strategies for emotional management in oneself and others" (Lopes et al. 2012). Findings from previous scholars (for example, see Pekrun, Goetz, Titz, & Perry, 2002) support Lopes et al. (2012) who maintain that students' experiences in academic settings are interrelated with their motivation, learning strategies, self-regulation, and academic achievement.

In the initial study by Lopes et al. (2012) students' ability to manage emotions and teacher ratings of students' adaptation to school was examined. The sample of 203 students was drawn from a high school in Spain enrolled in their third and fourth year of secondary school, equivalent to freshmen and sophomore years of high school in the American system. All participants of the study were Caucasian and came from middle class families. The results of the study indicated that students who scored higher on a situational judgment test, which assessed their ability to manage emotions, received lower teacher ratings of disruptive behavior and hostility and higher ratings of adaptation to school and academic achievement. A limitation of the study discussed by the authors focused on teacher ratings and the potential for those ratings to reflect the extent to which teachers favored students.

The second study conducted by Lopes et al. (2012) examined the relationship between the ability to regulate emotions and official school records. The authors hypothesized that the ability to manage emotions is negatively related to disruptive behavior in high school and positively related to academic achievement. The data were collected from a sample of 151 high school students from Spain. Despite the fact that these high schools were different from those used in the first study, the students shared similar demographic characteristics: they were all Caucasian and they came from middle class families. As hypothesized, the ability to manage emotions was negatively related to the amount of disruptive behavior in school as evidenced by official school records. These findings were consistent with those from the first study. Students' ability to manage emotions was not related to academic achievement perhaps because "this outcome is influenced by several factors, such as IQ, motivation, conscientiousness, social adaptions to school, and the influence of parents and peers" (Lopes et al, 2012, p.727). One

limitation of the first two studies by Lopes et al. (2012) was that the test on students' ability to

manage emotions was administered to students who were younger than the age group for which

the test was normed. This limitation was addressed in the third study which examined an older

population.

According to Lopes et al. (2012) the third study sought to extend the previous findings in

a sample of American college students. The authors sought to examine whether the relationship

between students' ability to manage emotions and adaptation to school observed in the previous

studies would generalize to late rather than early adolescents, in a college rather than a high

school setting in a different country. The data was collected from 91 undergraduate student

volunteers from the department of education at a university in New England. Participants

completed a test on their ability to manage emotions and were rated by one of seven teacher

raters on measures of interaction quality as well as social and emotional skills. The findings

from the third study were generally consistent with the previous two studies. Teacher raters

tended to rate university students scoring highly on a situational judgment test of emotional

regulation as more socially and emotionally competent than students who scored lower on this

test (Lopes et al., 2012, p.731). According to Lopes (2012) teachers tended to report better

interactions with students who received high scores on their ability to manage emotions;

however, these effects were not statistical significance. The limitations of the third study include

possible self-selection bias, gender imbalance and the fact that the number of students rated by

each teacher was uneven.

The studies conducted by Lopes et al. (2012) yield evidence to suggest that students who

scored higher on situational judgment tests of managing emotions in self and others revealed

better socio-emotional adaptation to school than their lower scoring counterparts. When

considered together, the findings highlight the importance of managing emotions as a tool for

school success.

Addressing Societal Stressors

According to Greenberg et al. (2001), recent years have witnessed a growing portion of

school-aged children experiencing countless social, emotional, and behavioral problems. These

problems interfere with their interpersonal relationships, school success, and their potential to

become competent adults and productive citizens. Other scholars maintain that the prevalence

rates of mental health disorders have been on the rise, with approximately one in five children

and adolescents experiencing problems severe enough to warrant mental health services

(Romano et al., 2001; U.S. Public Health Services 2000). Despite the noted increase, less than

15% of those needing help receive the services they require (National Advisory Mental Health

Council, 1990) and those children and adolescents that do receive services do so in their schools

(Rones and Hoagwood, 2000). According to the Institute of Medicine (2009), the significant

role of mental health problems and associated risks underscores the need to examine the

effectiveness of school-based prevention programs whose aim is to promote protective factors

and foster resiliency among school-aged children.

Neighborhood Disadvantage. Attar, Guerra, and Tolan (1994) investigated

neighborhood disadvantage in relation to children's development. The authors defined

neighborhood disadvantage as the presence of poverty, unemployment or underemployment,

limited resources, substandard housing and high crime rates. The participants in the study

included 384 first, second and fourth grade African-American ($n = 220$) and Latino ($n = 164$)

children from six schools in a large Midwestern city. All six schools were located in

communities of at least moderate neighborhood disadvantage when factors of citywide crime,

income level, housing and employment were considered. The occurrence of stressful life events

was measured by the Stress Index, a 16-item self-report scale consisting of three subscales:

Circumscribed events (4 items), Life Transitions (6 items), and Exposure to Violence (6 items).

The Peer-Nominated Aggression Scale (Eron, Walder, & Lefkowitz, 1972) was used to measure

children's aggression (p.394). The authors described the method as follows:

> In this procedure each child is presented with a series of printed pages, each listing all
>
> children in his or her classroom, with the names grouped by sex. The child is asked to
>
> circle every name that fits the question at the top of the page (e.g., "Who pushes and
>
> shoves other children?"). A child's score is derived by taking the number of times the
>
> child is nominated by other children and dividing by the total number of times the child
>
> could have been nominated. Scores thus range from 0 to 1. (p.394)

Teacher ratings of depression and/or anxiety and aggression were measured using the Child

Behavioral Checklist-Teacher Report Form (CBCL-TRF; Achenbach & Edelbrock, 1986).

Children's percentile scores for reading and math from the Iowa Test of Basic Skills were used

to measure academic achievement.

Children from schools in areas of high neighborhood disadvantage areas reported more

stressors than children from schools in moderate neighborhood disadvantage areas. First graders

reported significantly more cumulative stress than did second graders *(p<.05)* and fourth graders

(p<.001). African-American girls reported significantly more stressors ($M = 7.0$) than did any

other group ($p < .05$), and the other age and gender groups did not differ significantly. Further

comparison showed that among children attending schools in high neighborhood disadvantage

settings, first graders reported significantly more life transitions (e.g., parental divorce) than

fourth graders. Children from schools in high neighborhood disadvantage settings reported more

circumscribed or discreet traumatic events (e.g., death of a relative) than did children from

schools in moderate neighborhood disadvantage areas. First and second grade girls reported

significantly more exposure to violence than did fourth grade boys ($p < .05$). Boys in schools

located in moderate neighborhood disadvantage settings reported less exposure to violence than

did girls in moderate neighborhood disadvantage settings ($p < .05$) and children in high

neighborhood disadvantage areas ($p < .001$).

According to Attar et al. (1994), children living in high neighborhood disadvantage

communities reported experiencing more stressors during the preceding year than did children

living in moderately disadvantaged communities, but even children in the moderate group

reported experiencing a relatively high number of stressful events when compared to other

studies. For example, in a study of predominately Caucasian, middle-class, elementary school

children, Dubois et al. (1991) found that over a 1-year period, children experienced, on average,

slightly more than 2 of 32 possible stressful events listed (6.25%). In the study conducted by

Attar et al. (1994) children in moderate neighborhood disadvantage communities reported

experiencing more than four stressful life events of 16 possible choices (25%). Children living

in high neighborhood disadvantage communities reported experiencing close to seven of these

stressors during the preceding year (43.7%). This comparison highlights the reality that urban

minority children are intensively exposed to a multitude of stressful life events. It is safe to

further infer that the acute exposure of stressors experienced by urban minority children may

have a detrimental impact on their academic experience. For a high school student, the

cumulative effects of neighborhood disadvantage and stressful life events can potentially

diminish and ultimately erode academic ability.

From the parental perspective, McLoyd (1990) asserted that parents faced with the

realities of neighborhood disadvantage may experience feelings of powerlessness, fearing the

victimization of their children. This fear may subsequently develop into more power-assertive

and authoritarian parenting practice, which in turn, may contribute to an increase in their

children's aggressive behavior. To survive in these difficult communities, children tend to

develop tough and aggressive attitudes aimed at minimizing the emotional impact of persistent

stressors. Other scholars such as Huesmann, Guerra, Miller and Zelli (1992) postulated that

repeated observation of violence may promote internal standards of behavior accepting of

violence and direct the child's efforts toward avoiding victimization. DuBois et al. (1992)

maintained, "Youth faced with these kinds of contextual conditions may well exhibit greater

vulnerability to stressful events that occur in their lives than do youth in more resource-enriched

environments" (p. 553).

Dempsy, Overstreet and Moely (2000) conducted a study examining the function of

approach and avoidant coping on the relations between exposure to violence and post-traumatic

stress disorder (PTSD) symptoms in a sample of 70 African-American, inner city youth (ranging

in age from 11 to 14 years). The authors found that exposure to violence had a significant

correlation with frequency of psychological symptoms. In addition, a significant interaction

between violence and cognitive distraction was found. Consistent with the research of Attar et

al. (1994), Dempsey, Overstreet and Moely (2000) found that girls reported a greater frequency

of arousal symptoms compared to boys.

Art Therapy as an Intervention

According to Felitti (2003), adverse childhood experiences affect adult health. Sixty three

percent of the 17,000 participants experienced at least one category of childhood trauma and

over 20% experienced 3 or more categories of trauma. The findings indicate that adverse

childhood trauma seemed to account for two-thirds of serious problems with drug use, teenage

pregnancy and mental health disorders such as depression, hallucinations, and post-traumatic

stress disorder. Increased incidents of psychological pathology in children exposed to violence

have also been reported by Garbarino, Kostelny, & DuBrow (1991). Some scholars like

Garbarino (1997) affirmed that the incorporation of therapeutic interventions counteracts

emotional toxicity. Specifically, art therapy as an intervention can be used to address a variety of

problems areas salient to inner-city students (http://www.arttherapy.org/about.html).

Anxiety

Excessive worry is a central characteristic of anxiety disorders (Strauss, 1990), as well as

other symptomatic behaviors such as fear, phobias, self-deprecation and nervousness. According

to Kessler et al. (2005), anxiety disorders are the most common mental health problems in the

United States. With a median age of onset for anxiety disorders at 11 years and an adult

prevalence rate of 28.8%, preventive interventions or early treatment need to focus on the youth.

Twenge (2000) asserted that anxiety levels have increased significantly over the last half of the 20th century.

Several authors have documented the effectiveness of art therapy in the treatment of anxiety with children and adults in a variety of contexts, including anxiety, alcohol and aphasia (Chritenfield and Creager, 1996); women in prison (Cronin, 1994); anxiety and creativity (Grossman, 1981); children in public schools (Keve, 1995); children experiencing anxiety as a result of parental violence and separation (Kozlowska & Hanney, 2001). Regardless of population, art therapy has been shown to aid in the reduction of anxiety primarily because it "helps to organize and calm the 'inner chaos' that is anxiety, allowing participants to make sense of the confusion of daily life and to communicate without having to find the perfect words" (Curry & Kasser, 2005, p.81). According to Curry and Kasser (2005), coloring symmetrical forms (such as *mandalas*) helps to draw individuals into a state similar to meditation, a method which has been documented by some scholars to be an effective anxiety reducing technique (Arcari, 1997; Brown & Ryan, 2003; Flinton, 1998). The word mandala is from the classical Indian language of Sanskrit, meaning "circle" and representing wholeness (retrieved from http://www.mandalaproject.org on August 5, 2013). Brown and Ryan (2003) have shown that people who cultivate "mindfulness", or awareness and attentiveness to the present moment, also experience lower levels of anxiety.

Cultivating Mindfulness and Anxiety Reduction

Schonert-Reichi and Lawlor (2010) investigated the effects of a mindfulness-based education program on pre-and early adolescents' well-being and social and emotional

competence. A quasi-experimental control group pretest-posttest design was used to examine

the effectiveness of a mindfulness based educational (ME) program. The study included 246

participants in 4th to 7th grade from 12 schools in a Western Canadian city. Of the 12 schools, six

were selected to receive the ME program, $N = 139$ ($n = 70$ boys; $n = 69$ girls). The remaining

six schools served as the control group and were waitlisted to receive the mindfulness-based

education program the following year, control group, $N = 107$ ($n = 57$ boys; $n = 50$ girls). The

mean age of participants was 11.43 years ($SD = 1.07$), the median age for anxiety disorders. The

participants were drawn from 12 schools representative of the district profile. The purpose of the

study was to evaluate the effectiveness of a classroom program directed at promoting students'

positive behaviors. The dependent variables included optimism, assessed using the Optimism

subscale from the Resiliency Inventory (RI; Song 2003); school and general self-concept

measured through the Self-Description Questionnaire (Marsh, 1988); positive and negative

emotions, measured using the 24-item Positive and Negative Affect Schedule (PANAS; Watson

et al., 1988); social and emotional competence, assessed using teacher reports .

The data collected was examined through a generalized linear model analysis of

covariance in which differences or "change" scores were calculated by subtracting the pretest

score from the posttest score. Students who were exposed to the ME program showed significant

increases in optimism from pretest to posttest. A decrease in optimism from pretest to posttest

was noted. In relation to the analyses for positive affect, a positive statistical trend emerged in

the experimental group receiving the mindfulness based educational program showing increases

in their reports of positive affect from pretest to posttest, in contrast to those in the control

condition. There was no difference in change on negative affect between the experimental and

control groups. "None of the two-way interactions for optimism, positive affect, and negative affect were significant" (Schonert-Reichi and Lawlor, 2010, p.10). According to Schonert-Reichi and Lawlor (2010), pre- and early adolescents in the mindfulness based educational program condition, relative to pre-and early adolescents in the control condition, demonstrated significant improvements in positive school behaviors and significant decreases in aggressive/maladaptive behaviors.

> To test this hypothesis, we conducted a 2 (Group = ME Program vs. Control) ×2 (Age group = preadolescents vs. early adolescents) multiple analyses of covariance, with posttest ratings from the four subscales from the TRSC as dependent variables. Only posttest ratings were used for these analyses, rather than amount of change from pretest to posttest, due to the fact that teachers' ratings at posttest reflected the relative amount of positive improvement the student had made since the pretest rating. Results of this analysis yielded a significant intervention effect, Wilks' Lambda, $F(4, 190)=17.49$, $p<.001$, $\eta p\ 2 =.273$. As predicted, the means indicated that at posttest teachers in the intervention classrooms described their students as significantly more attentive, emotionally regulated, and socially and emotionally competent than did teachers in the control classrooms. The significant difference between the ME program and control group was consistent across all four subscales of the TRSC. Specifically, students exposed to the ME program, in contrast to controls, were rated by their teachers as significantly improved in Attention and Concentration and Social Emotional Competence. Significant improvements (decreases) in Aggression and

Oppositional/Dysregulated Behavior also emerged among students who received the ME

program intervention in contrast to controls. (Schonert-Reichi and Lawlor, 2010, p.10)

According to Schonert-Reichi and Lawlor (2010), a more complex picture has emerged when

examining students' general self-concept. The authors asserted that future efforts should

continue the search for ways in which students' positive emotions and adjustment can be

cultivated in schools. The researchers believe that a randomized trial would logically advance

the research on the effectiveness of mindfulness-based practices with children and youth

improving the science and practice of such programs across settings.

Sandmire, Gorham, Rankin and Grimm (2012) examined the effect of art making on

anxiety. One week before final examinations a sample of 57 undergraduate students were

randomly assigned to an art making group or a control group. Participants from the art making

group were instructed to choose one of five art making activities (coloring pre-designed

mandalas, free form painting, collage making, clay sculpture, and drawing). All participants

completed the State-Trait Anxiety Inventory (STAI). The art making group chose and completed

one art activity in a 30 minute period. The control group sat in comfortable chairs for 30

minutes. After the 30 minutes all participants again completed the STAI, followed by a

debriefing session. According to Sandmire, Gorham, Rankin and Grimm (2012), the mean state

anxiety score between pre-activity and post activity decreased significantly in the art making

condition. There was no significant difference found in the control group. The authors found

evidence supporting similar findings on the mean scores of trait anxiety. The study's findings

imply that brief periods of art making can notably reduce a person's state of anxiety. The

potential implications for art and art therapy programs are significant, offering innovative methods for helping college students and others coping with stress.

Curry and Kasser (2005) examined the effectiveness of art activities, in particular repeated coloring, on the reduction of anxiety. Eighty-four undergraduate students were administered the State Anxiety Inventory as a baseline measure. Participants were asked to write about a past fearful event as a way to induce anxiety. Immediately after the brief anxiety induction (4 minutes), the State Anxiety Inventory was re-administered. Then participants were randomly assigned to one of three conditions: coloring a mandala ($n = 30$), coloring a plaid form ($n = 27$), or free form coloring on a blank piece of paper ($n = 37$). For 20 minutes participants used color pencils to color the mandala or the plaid form or the blank piece of paper. After 20 minutes all participants were once again administered the State Anxiety Inventory to assess any changes in anxiety that may have occurred during coloring. The results of the study indicate that coloring a mandala for 20 minutes is more effective in reducing anxiety levels than free-form coloring for 20 minutes. Participants who were randomly assigned to the free-form coloring group showed no reduction in anxiety. Participants in the plaid form group displayed as much relief from anxiety as did participants in the mandala group. Curry and Kasser (2005) concluded that both the mandala form and the plaid form provided structure and direction which was not naturally present in the free-form. The authors also highlighted the complexity of the mandala and the plaid form, which required participants' attentive engagement but did not demand excessive thought or focus.

The applications of art therapy to mediate anxiety are widespread from students experiencing testing anxiety to individuals who experience a fear of flying on airplanes; a creative outlet may prove useful in reducing such anxieties. Henley (2002) discussed cases in which clay work allowed clients to express and discharge negative emotional states. De Petrillo and Winner (2005) demonstrated that creative arts therapies can enhance mood in participants when compared to a control group whom simply copied geometric patterns. Bell and Robbins (2007) documented the mood-enhancing effects of drawing. Boothby and Robbins (2011) documented the efficacy of listening to music in enhancing positive affect.

Furthermore, Kimport and Robbins (2012) studied the impact of creative clay work on the reduction of negative mood. Despite an adult sample, the results from Kimport and Robbins' (2012) randomized control trial add support to integrating creative modalities in schools to reduce negative mood, and may have direct implications for adolescents who are resistant to traditional forms of talk therapy. In their study, the authors assigned 102 participants to one of four conditions following the induction of a negative mood: handling clay with directives to fashion a pinch pot, handling clay with guidelines to manipulate it freely, handling a soft stress ball with directions to toss the ball in a structured manner, or handling a soft stress ball with directives to manipulate it freely. Orienting their study in the theoretical framework of Kramer (1971; 1973) "art as therapy" approach, Kimport and Robbins (2012) speculated that the art production in and of itself can have mood enhancing effects. Quantitative assessments of mood were collected before and after the interventions. Kimport and Robbins (2012) compared mood changes between groups and examined whether the clay medium had any special value for enhancing mood as compared to a condition in which participants similarly held and manipulated

a soft, physical object. Simultaneously, the authors examined whether participating in a

structured activity that produces a concrete result is mood enhancing as compared to the aimless

manual manipulation of objects. Finally, Kimport and Robbins (2012) observed any interaction

between the medium (clay or stress ball) and the instructions (free or structured). The authors

hypothesized that the structured manipulation of clay would produce the greatest mood benefits.

The results of the study documented that a 5 minute period spent manipulating clay produced

more mood enhancement than the same amount of time spent manipulating a soft stress ball from

pre-treatment to post-treatment on POMS (a 5-point scale, each of 65 adjectives that describe

current state) and the STAI-S (20 item self-rate which identifies "state" or present level of

anxiety and second 20 "trait" items aimed at measuring stable, long-term anxiety).

Monti et al. (2012) investigated the incorporation of mindfulness based art therapy

(MBAT) as a means of lowering anxiety and the possible physiological impacts on the structure

of the brain in cancer patients. According to Monti et al. (2012), the goal of the study, "was to

observe possible mechanisms for the observed psychosocial effects of MBAT by evaluating the

cerebral blood flow (CBF) changes associated with an MBAT intervention in comparison with a

control of equal time and attention" (p.398) The mindfulness based art therapy program

included:

> [a]wareness of breathing, awareness of emotion, mindful yoga, walking, eating, listening,
>
> and expressive therapy tasks that provided opportunities for self-expression, facilitated
>
> coping strategies, improved self-regulation, and provided a way for participants to
>
> express emotional information in a personally meaningful manner. (p.398)

Eighteen patients were randomly assigned to the MBAT program or an education program control group. All of the patients had been previously diagnosed with breast cancer for at least six months prior to enrollment and were not in active treatment. Participant's response to MBAT was measured using a 90-item symptom checklist which was completed by each patient before and after the eight-week program. Functional magnetic resonance imaging (fMRI) was also used pre- and post-program to evaluate cerebral blood flow (CBF), which according to Monti et al. (2012) corresponds to changes in the brain's activity. Functional magnetic resonance imaging scans were performed at five distinct occurrences; at rest, during a 'neutral task', during a meditation task, during a stressor task and at rest again. The research designed intended to evaluate the general as well as specific effects of a mindfulness approach and to provide a thorough inquiry of the CBF changes between the pre and post-program scans.

The results indicated that participants in the MBAT group experienced significant effects on cerebral blood flow compared to the control group and in the "emotional centres of the brain including the left insula which helps us to perceive our emotions, the amygdala which helps us experience stress, the hippocampus that regulates stress responses, and the caudate nucleus that is part of our brain's reward system" (p. 397). The increases in cerebral blood flow are correlated significantly with lowering stress and anxiety, which was reflected by participants' pre and post program anxiety scores among the MBAT intervention group. The findings suggest that the MBAT helps mediate emotional responses in women with breast cancer.

Depression

According to Semund-Clikeman, Bennet, and Guli (2003), in the past two decades, a common consensus regarding child and adolescent depression has emerged, in part because of the influence of the *DSM* classification system on diagnostic practice. According to Tao et al. (2012), Major Depression in adolescents is a significant public health concern because of its frequency and severity. While effective treatments are available, the impact of depression and its treatment on the adolescent brain remains understudied. Walkup (2010) asserted, "Perhaps the most important step in improving outcomes for teen depression is to make sure that teens get to the clinic and get there early in their course of illness" (p. 736). The difficulty in diagnosing depression in children and adolescents, according to McKnew, Cytryn, and Yahraes (1983), is that some children and adolescents mask depression with antisocial behavior, a tendency that can often lead to misdiagnosis.

Beck, Rush, Shaw, and Emory (1987), emphasized that negative perceptions play a major role in depression, and these negative perceptions can subsequently be used to screen for depression. Silver (2009) found evidence that strongly negative artistic responses can distinguish children and adolescents potentially suffering from depression. Research conducted by Gallese, Keysers, and Rizzolatti (2004) used magnetic resonance imaging (MRI) to track mirror neurons, which may be involved in the projective process of selecting and identifying with a drawing in the stimulus drawing task described by Silver (2009). Mirror neurons are fundamental brain mechanisms that detect mental states, including the ability to empathize with the behavior of others as well as to understand another's emotions, intentions, and actions. However, Fredberg and Gallese (2007) highlighted that "the implications of mirroring

mechanisms for empathetic response to images and works of visual arts have not yet been assessed" (p. 197).

Ponteri (2001) examined the effect of group art therapy on maternal self-images and self-esteem, as well as the quality of interaction between mother and child. According to Ponteri (2001) the participants were four mothers who experienced depressive symptoms that affected their caregiving abilities and their children. The participants completed a mother-child drawing scored with the Formal Elements Art Therapy Scale (FEATS) (Gantt & Tabone, 1998), a videotaped play session, and two pre- and post-treatment self-report assessments (20-item mother questionnaire (MQ) which assessed parenting skills, and a 26-item Maternal Self-Report Inventory-Short Form (MSI-SF) that assessed adaptation to being a mother and maternal self-esteem (Shea & Tronick, 1988).

Ponteri (2001) reported a positive change in self-report scores for both the MQ and the MSI-SF after participating in group art therapy. The author reported that the children, as a group, displayed behavioral changes in categories in which their mothers displayed minor shifts in face-to face interactions as evidenced by the videotaped play sessions. Ponteri (2001) reported that children's negative affect decreased, their observable flat affect lessened slightly, they appeared more gratified, and they demonstrated a minimal increase in their level of initiative and control in the interactions with their mothers. Art therapy provided an external support and fostered self-expression, which allowed both mother and child opportunities to discover and explore their relationship through the art process. Further research is required to distill the implications of creative modalities on depression.

Accurately assessing depression, particularly among children and adolescents, is a paramount task for clinicians. To determine whether strongly negative responses to a drawing task may be associated with clinical depression, 24 art therapists, teachers, and counselors volunteered to present the Draw A Story (DAS) drawing task to students in public elementary and secondary schools in Arizona, Montana, New Jersey, New York, and Pennsylvania (Silver, 1988, 1989). According to Silver (2009), the DAS is an art therapy assessment used to identify children and adolescents at risk for violent behavior and/or masked depression. A total of 350 drawings were collected from 35 children and adolescents who had previously been identified as clinically depressed, 74 who had emotional disturbance with non-depressive psychopathology, 64 with learning disabilities, 18 with hearing impairments, and 117 with no known impairments. In addition, the sample included 15 adults diagnosed with depression, 27 senior adults, and 24 children and adolescents who responded to the DAS on two occasions. According to Silver (2009), 63% of children and adolescents identified as depressed drew strongly negative responses to the DAS task.

Self-Esteem

Phinney, Cantu and Kurtz (1997) affirmed that self-esteem is widely acknowledged to be an important factor in adolescent development. Teachers, administrators, and parents commonly voice concerns about students' self-esteem. Its significance is often exaggerated to the extent that low self-esteem is viewed as wholly related to negative outcomes and high self-esteem as wholly related to positive outcomes (Manning, Bear & Minke, 2006). High self-esteem within education is important because it relates to academic and life success. Considering the surge of creativity which occurs in adolescents, art may offer a means of self-expression, providing

opportunities to understand the complexity and integrity of the adolescent experience (Milkman, Wanberg & Robinson, 1996). Heath et al. (1998) maintained that the discipline of art increases confidence and raise self-esteem. According to Pickhardt (2010), low self-esteem can contribute to the erosion of relationships. Self-esteem has been found to be positively associated with general psychological well-being, while negatively correlated with depression and hopelessness among adolescents (Harter, 1993).

Pickhardt (2010), however, suggested that two major reductions in self-esteem occur as a normative characteristic of adolescent development. The first reduction, according to the author, occurs at the outset of early adolescence (ages 9-13) as the young person begins to separate from childhood, leaving behind the "childish" or "kid stuff" for the sake of future growth and acting older. The second reduction is thought to occur at the end of adolescence (ages 18-23), as the young person is confronted with the reality of independence and may feel overwhelmed.

According to Hartz and Thick (2005), self-esteem provides a sense of competence and resiliency to undertake and successfully respond to life's challenges. Berk (1996) wrote, "Self-esteem ranks among the most important aspects of self-development since evaluations of such competencies affect emotional experiences, future behavior and long-term psychological adjustments" (p. 357). High self-esteem involves the sense that one is worthy of happiness (Branden, 1994), whereas low self-esteem increases vulnerability to depression and suicide (Harter, 2002). Lack of self-esteem is closely associated with many serious problems facing adolescents, including poor academic performance, increased potential for dropping out of school, substance abuse, teen pregnancy, and delinquent behavior (Reasoner, 2002).

Hartz and Thick (2005) maintained that self-esteem develops out of a sense of competence and positive social interactions. In a study of female juvenile offenders, the authors found evidence that "art therapy is an effective intervention for raising the self-esteem of female juvenile offenders, a population characterized not only by criminal behavior but also by extensive histories of trauma and childhood maltreatment" (p.77). The findings also suggest that art therapy cultivates mastery, promotes healthy social connections and induces greater self-awareness; crucial factors in raising self-esteem. Heavily directive or confrontational approaches to interventions may exacerbate the presenting problems, an atmosphere of acceptance and trust is crucial to the intervention process for children with poor self-esteem.

The Cumulative Effect

Twenge, Gentile, DeWall, Ma, Lacefield and Schurtz (2010) found generational increases in psychopathology among American college students ($N = 63,706$). The meta-analysis conducted by the researchers included archival data collected using the Minnesota Multiphasic Personality Inventory (MMPI) between 1938 and 2007, MMPI-2 and MMPI-A (with high school students; $n = 13,870$) between 1951 and 2002. They found that the current generation of young people scored a standard deviation higher on clinical scales, including Psychopathic Deviation, Paranoia, Hypomania and Depression (p.145). Remarkably, five times as many young people in the current generation scored above the common cutoff for psychopathology.

Twenge et al. (2010) suggested that the shift in cultural values and an increased focus on materialism, over-emphasis on the individual, perpetuation of unrealistic expectation and instability in relationships were important factors in the observed increase in psychopathology (see also Eckersley & Dear, 2002; Myers, 2000; Seligman, 1990). Factors such as the role of the

media or the increased exposure to internet based resources where not variables explored by the

researchers. Instead, Twenge et al. (2010) asserted that individuals focused on extrinsic goals

such as money, looks, and status may often feel anxious and depressed because these goals are

associated with the Narcissism scale, and undermines the important intrinsic goals of

competence, affiliation, and autonomy (for example, see Deci & Ryan, 2000; Kasser, 2003;

Kasser & Ryan, 1996; Pryor et al., 2007; Roberts & Helson, 1997; Twenge & Campbell, 2010;

Twenge & Foster, 2008). Some studies found a correlation between increases in

psychopathology and the prevalence of societal factors such as crime, divorce, and

unemployment (Reynolds, Stewart, MacDonald, & Sischo, 2006; Scollon & Dieneer, 2006;

Twenge, 2000; Twenge, Zhang, & Im, 2004; Wells & Twenge, 2005).

According to Benton et al. (2003) and Olfson and Marcus (2009) 10% of Americans were

taking antidepressants, double the number in 1996. Other evidence was provided by Goodwin

(2003), who reported twice as many people experienced panic attacks in 1995 than in 1980.

Swindle et al. (2000) identified that more Americans had at some point felt an impending

nervous breakdown in 1996 than in 1957 or 1976. Several scholars such as Robins et al. (1984)

and Klerman and Weissman (1989) showed increases in depression over the subsequent

generations, although it remains unclear if the increase incidents of depression are related to

improved diagnostic criteria rather than increased prevalence of depression.

The generational increase in psychopathology such as anxiety or depression may have

direct associations with feelings of helplessness and lack of control as referenced in the study by

Attar et al. (1994). According to Gray (2011), it is in play that children develop intrinsic interest

and/or competencies and it is through play that children learn to make decisions, solve problems,

exert self-control, and follow rules (p.454). Russian developmental psychologist Vygostsky

(1978) wrote that a major value of children's play is the practice of self-control. In play, Gray

(2011) asserted that children regulate their emotions and learn to get along as equals, and he

surmised that play deprivation might lead to an external locus of control. Such an orientation

logically has the potential to increase anxiety and depression, leaving individuals feeling as if life

is out of their control.

Van der Weijer-Bergsma, Langenberg, Brandsma, Oort, and Bögels (2012) investigated

the immediate and long-term effectiveness of a school-based mindfulness training to prevent and

decrease stress and related mental health and behavioral problems in elementary school children

in Amsterdam, the Netherlands. The participants ranged in age from 8 to 12 year olds and were

selected from three elementary schools. According to van der Weijer-Bergsma et al. (2012),

"Classes were randomized to an immediate-intervention group ($n = 95$) or a waitlist-control

group ($n = 104$), which received the mindfulness-based stress reduction intervention after a

waitlist period in twelve 30 minute sessions delivered in 6 weeks" (p.1). Although only a few

primary prevention effects of the training on stress and mental well-being were found directly

after training, more effects were reported by both children and their parents at follow-up.

Exploratory analysis revealed that children who ruminated more are affected by the

intervention differently than children who ruminated less. Children who ruminated more

already had high levels of bodily awareness and attention to others' emotion initially, but

analyzed their emotions less as a result of the intervention. Children who ruminated less

showed an increase in bodily awareness and attention to other's emotions as well as a

decline in anger and aggression due to the intervention." (p.7)

Gold et al. (2010) preserved the notion that teachers and students may benefit from the

incorporation of mindfulness in the educational setting, since mindfulness training may help

teachers cope with their own stress and as a result, may influence their interactions with their

pupils.

Increased psychopathology, behavioral difficulties and academic deficiencies are thought

to be products of failure to "acquire social and emotional skills that are essential for healthy

psychological development" (Gray, 2011, p. 458). While no direct relationship can be drawn, it

is important to note that Nicolopoulou (2010) and Elkind (2009), among others, have noted a

trend toward removing play and replacing it with direct academic instruction in early childhood

education. This trend, according to Loesl (2010) is driven in part by the rigid curricula in the

United States in response to the No Child Left Behind Act.

Keeping Students Engaged in School

Adolescence, already considered a potentially difficult developmental period, becomes

progressively more complicated when appropriate social skills are lacking. According to Grant

et al. (2006) psychosocial stress is an important risk factor for internalizing (e.g., anxiety,

depression) and externalizing (e.g., behavioral) problems in childhood and adolescence. Compas

(1987) maintained that chronic or cumulative stress asserts a greater influence on psychological

and behavioral problems than major life events. The proposal that participation in afterschool

programs can reduce negative behaviors (Chong & Kim, 2010) is supported by data showing

outcomes on juvenile delinquency (Gottfredson, Gerstenblith, Soule, Womer & Lu, 2004;

Mahoney, 2000), substance abuse (Carlini-Cotrim & de Carvalho, 1993; Morrison et al., 2000),

aggression (Froeschle & Riney, 2008; Karataş & Cökçakan, 2009) and school dropout (Spier,

2010).

      Educationally- oriented music therapy as implemented by Chong and Kim (2010)

addressed academic, social and emotional skills of 89 students from 13 different schools.

Children were referred by their teachers for significant social and behavioral problems. Over the

course of 16 weeks, and within the structure of an after school program setting, students were

presented with six hour-long sessions five days a week. Sessions were comprised of both lecture

and experiential content regarding the use of music as both a therapeutic and educational

medium, which focused on three content areas: academic skills (discrimination of abstract

concepts of musical sounds), social skills (acknowledgement of oneself in relation to others) and

emotional skills (identification and expression of emotion, empathy and coping skills). The

Social Skills Rating System developed by Gresham and Elliot (1990) was used to measure Social

Skills, Problem Behavior and Academic Competency, and was administered before and after the

educationally oriented music therapy program. Pretest and posttest scores were compared for

significant differences after program implementation, the results showed significant

improvements in areas of social skills and problem behaviors. No significant improvements in

academic competencies were reported. Chong and Kim (2010) concluded that educationally

oriented Music Therapy was an effective intervention in enhancing social skills and bringing

about behavioral change, yet this must be tempered by the fact that the study lacked a control

group.

Similar results were reported by Jackson (2003), Montello and Coons (1998), and Mason and Chuang (2001) who found that art, music, and drama offered students a place of mutual interest to interact in pursuit of a common goal and a reduction in acting-out behavior. In addition, the externalization of behavioral problems in socially appropriate ways provided the rationale for several studies of the use of percussion instruments to ventilate students' aggressive energy (Henderson, 1983; Rickson, 2006; Rickson & Watkins, 2003).

According to Breen and Daigneault (1998), "activity therapy allowed adolescents the opportunity to express feelings and resolve conflicts in a nonverbal way through use of games, drama, music, art, and other creative action oriented activities" (p. 28). The authors maintained that providing developmentally appropriate play techniques for adolescents focused on "personal identity, sexuality, family and peer relationships, and educational and vocational choices helped adolescents develop socialization skills, communication skills, self-confidence, and problem-solving abilities, and become more aware of their developing sexuality, their values, and their sense of self" (Breen & Daigneault, 1998, p.27). Breen and Daigneault acknowledged that:

> Adolescents are affected by real world issues such as transitions from school or home, sexuality, pregnancy, drugs, intimate relationships, school pressures and body image. Use of play techniques can help adolescents express themselves through the structure of a game, develop insight through a cooperative activity, or risk new behavior through drama. (p.27)

Therapeutic play techniques are not solely restricted to athletic games, competitive and noncompetitive board games, card games or role-playing. Egge, Marks and McEvers (1987) used puppetry with adolescents in a junior high school to encourage engagement in problem

solving, foster expression, encourage discussion of feelings and creativity coalescing around topics of interest, and sharing special abilities with peers. Kottman, Strother, and Deniger (1987) reported that adolescents responded well to activity therapy. Several authors (Egg, Marks & McEvers, 1987; Kottman, Strother & Deniger, 1987) supported the effectiveness of play therapy in helping adolescents express themselves when verbal expression was obstructed.

Paone, Packman, Maddux and Rothman (2008) reviewed the connection of play to moral reasoning. In their research design, the authors compared pre- and post-test results of ninth grade students at risk for early school dropout using the Defining Issues Test-2 to measure moral reasoning. They compared the effectiveness of 10 weeks of group activity therapy *(n = 27)* versus group talk therapy *(n = 34)* for at-risk high school students who failed to succeed in the high school environment. Despite a small sample size (*n* = 61) and high attrition rate, the authors found a significant difference in the outcomes for group activity therapy and group talk therapy, suggesting that group activity therapy may be a more effective technique for enhancing moral reasoning with this population.

Much like Nicolopoulou (2010) with early learners, Paone et al. (2008) framed group activity therapy in adolescence as a means of enhancing sociability, self-regulation and interpersonal skills.

Art Therapy with Children and Adolescents

For Riley (1999), the use of creative modalities empowers adolescents to foster personal autonomy through artistic expression.

The adolescent enters into the most creative time of their lives: art therapy is based on the notion that when creativity is introduced into problem solving, the art can provide fresh

viewpoints and excitement. When thinking of adolescent creativity, the traditional

attachment to aesthetics must be broadened to include imagination and behavior. As an

example of creativity, consider this common use of inventiveness: a teenager can invent

more ways to avoid doing something they dislike than any adult can imagine. Tapping

into the adolescent's creativity is not difficult if the art therapist suggests expressive tasks

in a manner which shows respect for their way of reinventing meaning and involves

subject matter that is of interest to the teen. (p.38)

The role of art therapy in education has been explored by several scholars (Bush, 1997;

Frosting & Essex, 1996; Isis, Bush & Siegel, 2010; Karkou, 2010; Moriya, 2000; Nelson, 2010;

Rosal et al., 1997; Ross, 1997). Despite differences in implementation and the diverse spectrum

of the population serviced, art therapy in the context of education has the potential to meet the

unique needs of students. Miami-Dade County Public Schools pioneered the integration of art

therapy in schools in the late 1970s, "helping students with emotional and behavioral disabilities

become more receptive to academic involvement while maximizing their social and emotional

potential" (Isis, Bush, Siegel & Ventura, 2010, p.56). Since its inception in the 1979-1980

academic year, art therapy in the Miami-Dade County Public Schools has "adjusted to the

various transitions inherent in 30 years of practice within the fourth largest school district in the

United States" (p.59). Currently, the Miami-Dade County Public Schools Clinical Art Therapy

Program offers students with emotional and/or behavioral disabilities weekly individual and/or

group sessions that focus on the student's social, emotional, behavioral, and cognitive needs.

Students are evaluated through the administration of the Levick Emotional and Cognitive Art

Therapy Assessment (LECATA) and/or the Silver Drawing Test and must meet specific criteria

before beginning therapy. These assessments inform the treatment team, which includes the

classroom teacher, the school clinician or counselor, and the art therapist in developing and

achieving the goals of the students' Individualized Education Plan (IEP). According to Isis et al.

(2010), despite the numerous changes experienced by the Miami-Dade County Public Schools

Clinical Art Therapy Department in over 30 years of practice, the focus of empowering students

through creativity has been an effective approach in solidifying its place within special

education.

Hagood (2002) investigated the use of imagery to measure cognitive development in

children ages 5-10. The author reviewed three art-based instruments; Raven's Coloured

Progressive Matrices (CPM), the British Picture Vocabulary Scale (BPVS), and the Naglieri

Draw-A-Person Test (DAP), for potential use by art therapists in assessing children's cognitive

development. The subjects in this study were grouped into age bands; Primary One, 4 years 10

months to 6 years ($n = 12$; 7 boys and 5 girls); Primary Three, 6 years 11 months to 7 years 8

months ($n = 10$; 5 boys and 5 girls); and Primary Five, 9 years 2 months to 9 years 8 months ($n

= 12$; 5 boys and 7 girls). Hagood (2002) reported significant correlations between scores on

the CPM and the DAP for all subjects combined ($N = 34$). Significant correlations were also

significant for Primary Five children on all measures (CPM, BPVS & DAP). Between CPM

and DAP correlation coefficient were greater for all subjects than for those between the BPVS

and the DAP (Hagood, 2002). A possible explanation for the correlation between the CPM and

DAP can be attributed to the shared spatial criteria. "The results of this study infer that valid

and standardized tests such as the CPM, the BPVS, and the DAP could be incorporated into

clinical practice and research" (Hagood, 2002, p. 67).

Art Therapy in School (Addressing Behavioral Difficulties). Nelson (2010) discussed the history and development of creative arts therapy programs within the Jersey City Public Schools where two art therapy based programs were provided to children who displayed physically aggressive behaviors, emotional outbursts, decreased verbal communications, bullying, self-injurious behavior, inability to focus, and suicidal ideation. The study included 55 students from 9 schools ($n = 8$ elementary schools; $n = 1$ middle school) and quantified changes in students' behaviors (Nelson, 2010). Nine registered art and music therapists delivered the intervention. During a 4-month treatment intervention period, a 4-point ordinal scale (none, mild, moderate, severe) was devised for each of the presenting problems (physically aggressive behaviors, emotional outburst, decreased verbal communications, bullying, self-injurious behavior, inability to focus and suicidal ideation). Teacher ratings were completed at baseline and at the conclusion of treatment.

The results revealed significant improvement ($p=0.036$; $p=0.0001$) in each problem area. Multiple regression analyses were attempted to identify predictive factors. According to Salkind (2010), the general purpose of multiple regression is to learn more about the relationship between several independent or predictor variables and a dependent or criterion variable. With respect to demographic factors, only male gender significantly predicted better treatment response (*multiple R^2* =.349; $p = .023$). Only art and music therapy significantly predicted response in subsequent multiple regressions. The total number of resources, how music and art therapy performed, did not predict better treatment responses. Art Therapy co-efficient was the strongest factor at 2.375 ($p = .0001$), while Music Therapy's co-efficient was 2.217 ($p = .001$).

Overall, the analysis of variance for the total model was highly [*sic*] significant (p=0.0001, F =16.09) (B. Tepper, personal communication, April 17, 2012).

Nelson (2010) supported the implementation of art therapy in Jersey City Public Schools by grounding theoretical principals in the work of scholars such as Riley (1999), and Prout and Brown (2007) who maintained that adolescents often find therapy to be an imposed form of torture. Both Riley (1999) and Prout and Brown (2007) acknowledged that adolescents are well defended, street smart, and not tolerant of inauthentic attempts by adults to "pry" (p.18) into their belief systems and issues. Riley (1999) attributed the creative ability of art therapy to respond to the students' realities and allow them the room to explore uncertainty and flexibility as a major factor that can lead to a successful intervention.

According to the Illinois Children's Mental Health Task Force (2003), 70% to 80% of Chicago Public School children in need of help do not receive appropriate and necessary mental health services. As a result of those facts, Art Therapy Connections (ATC), an inner city, year-long school-based art therapy program in Chicago, was created to serve the mental health needs of students identified as being at risk of failing grades 3-12 and to encourage students to stay in school. As the students create art, they develop a language of expression (Sutherland, Waldman & Collins, 2010). Art Therapy Connections focused on increasing student concentration, self-control, enhancing interpersonal skills, diffusing feelings of anger, and providing students with a method of self-exploration. Respecting and accepting students' creative expression, validating their right to be angry, sad or frustrated can help them feel more connected with the community and possibly help raise their self-esteem. According to Klorer (2000), "Children gravitate toward forms of expression that will help them to communicate feelings safely" (p.242). Art

Therapy Connections nurtured creative community expression. Each directive was designed to

teach useful emotional regulation and anger management as well as to promote self-care and

community involvement, and respectful, supportive and positive relationships (Sutherland,

Waldman & Collins, 2010).

Art itself can become a bridge that provides access to feelings universally (McNiff,

1984/2009). Data collected by Art Therapy Connections reported the progress of 150 students

who participated during the 2007-2008 academic year. Art Therapy Connections records

demonstration that approximately 80% of the students consistently attended school. Twenty

percent of students not in school were ill, truant, suspended, expelled, or transferred out of the

district (Sutherland et al., 2010). Data collected from the participating high school for the 2007

and 2008 academic years demonstrates graduation rates of 78% for students that participated in

the year-long art therapy program whereas the graduation rate for the entire student body was

56%. The authors reported a 36% improvement in the graduation rate for students that

participated in the Art Therapy Connections program but it is unclear how the researches arrived

at those findings. Sutherland et al. (2010) affirmed the client's ability to change and emphasized

the important alliance with a competent, caring adult as a predictor of positive outcome.

Summary

The growing complexities of educating children and the increasing limitations of the

educational system combine to create a damaging reality that underserves the needs of school

age children. As a result of these realities, and as shown in the literature, the integration of the

expressive therapies within educational settings has the potential to provide educators with a

greater understanding of the social-emotional conditions that influence behavior and seem to have an adverse effect on academic achievement. Allowing students the opportunity to creatively explore and develop solutions for the problems they face has proven an effective and empowering solution to the individual and often complex realities students face. With this added understanding, students, educators, and expressive therapists alike can begin to address the root causes of behavioral and academic deficiencies, empowering students to express themselves in socially appropriate ways, take ownership of their education, and foster creative life-long growth. The brain learns best when it is dynamically involved in exploring, inquiring, and analyzing (Gardner, 1999).

There are minimal investigations of school based art therapy interventions with mainstream high school students existing in the literature. This population is of particular importance because it is the final formative educational period before students embark on independent collegiate study. Academic and emotional difficulties have the potential of interfering with a successful transition between these educational stages. With that in mind, it is important to offer high school students the necessary psychological support and the appropriate tools for coping with difficulties as well as enhancing the spectrum of their emotional language if they are to be successful (Pleasant-Metcalf & Rosal, 1997).

However, a comparison of the effectiveness of guided art therapy and mere art exposure is missing altogether from the literature. Proponents of art therapy believe that it is only by engaging in the creative process with a trained art therapist, as opposed to creating art work independently, that individuals gain insight into their own psychological processes (For example see, Gladding, 2011; Isis, Bush, Siegel, & Ventura, 2010; Sassen, Spencer, & Curtin,

2005; Spier, 2010; Sutherland, Waldman, & Collins, 2010). The effectiveness of art therapy for addressing the emotional needs of school-based children is an area that needs further empirical support. Although many narrative case studies can be found in the literature (Broecher 2012; Lee, 2013; Nishida & Strobino 2005), studies demonstrating the effectiveness of art therapy within academic settings are fundamental to support the incorporation of this intervention within education.

CHAPTER 3

Method

The purpose of this study was to assess the efficacy of group art therapy interventions in improving social and emotional issues for male high school freshmen. The BASC- 2 Self Report clinical scales (Anxiety, Depression and Self-Esteem) and the composite scales (School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, Emotional Symptoms Index and Personal Adjustment) were administered pre- and post-intervention.

Classes were assigned either to an experimental group that participated in art therapy group sessions, or to a control group who were allowed to complete academic work, but did not participate in art therapy group sessions. At the conclusion of the 12 week intervention period, participants in the experimental group completed a post intervention review questionnaire about the artwork they created during the intervention. The intent of the study was to measure the implications of infusing art therapy within an educational setting, its potential usefulness as part of a mainstream academic curriculum, and participants' perceptions of art therapy.

The study was conducted at an all-boys private high school, located within New York City. The participants resided in low-income neighborhoods and could be classified as students living in poverty. However, substantial financial assistance was provided to families to offset the cost for students to attend the high school. Baseline academic assessments were administered prior to the start of the school year during freshman registration. Prior to entering high school students were required to take The Archdiocesan Catholic High School Exam (TACHS Exam), to provide an academic profile from 6th, 7th and 8th grade as reported by the students' elementary schools, and take a non-standardized high school placement exam. Based on these assessments,

students were placed into one of three academic tracks (Honors, Average, or At Risk). Honors

Track students met the criteria required to receive an Advanced Regents Diploma, which entails

they to pass eight New York State Regents Exams, and take Advanced Placement Classes

potentially earning them college credits. Students assigned to the Average Track were expected

to receive a New York State Regents Diploma by passing five New York State Regents Exams.

Participants assigned to the At-Risk Track met the criteria of students who enter high school with

academic deficiencies and must remediate some basic skills either in reading, writing, or

mathematics and are considered at-risk for not meeting the basic requirement needed to receive a

high school diploma. They must pass five New York State Regents Exams in order to graduate

from high school.

Research Design

For the duration of the six month study, one class from each of the academic tracks

(Honors, Average, and At-Risk) were arbitrarily assigned to the experimental group, which

participated in 12 group art therapy sessions. The remaining class from each of the three

academic tracks was assigned to the control situation. The control group participates could

complete work assigned by other teachers or interact with their peers. The control group was

void of artistic expression or therapeutic process.

All students completed the BASC-2 prior to the study and at the end of the intervention

period. The BASC-2 is a self-report survey used to evaluate self-perceptions and a variety of

emotional and behavioral disorders in children. For the purposes of this study, mean changes in

T-scores, which measures distance from the mean, were calculated for BASC-2 variables. For

the BASC-2 scales of Anxiety, Depression, School Problems, Internalizing Problems,

Inattention/Hyperactivity Problems, and Emotional Symptoms Index, clinically significant T-scores fall within a range of 70 and above, at-risk T-scores range from 60-69, and typical T-scores fall within a range of 59 and below. For the adaptive scales of Self-Esteem and Personal Adjustment, clinically significant T-scores fall within a range of 30 or lower, at-risk T-scores range from 31-40, and typical T-scores fall within a range of 40 and above. T-scores indicate the distance from the non-clinical group mean of 50 and a standard deviation of 10.

Additionally, participants in the experimental group completed a post-art therapy reflection comprised of five open-ended questions at the end of the intervention. The researcher believed that a better understanding of the effectiveness of art therapy within an educational setting may be accessed through the reflections provided by participants. Specifically, at the conclusion of the study's 12 interventions, participants were given a folder containing all of their art work created during the duration of the study. Participants were instructed to select one of the art pieces from the folder that they felt possessed the most emotional energy. Using the selected piece, participants responded the five open-ended prompts. The questions were developed to aid participants process the affect they experienced during the art therapy sessions.

1. What about this art piece indicates emotions?

2. Describe the artwork.

3. Describe how you felt before you created the artwork.

4. Describe how you felt after you created the artwork.

5. What does this piece mean to you now that you had time reflect on it?

Intervention

The experimental group was exposed to 12 sessions of specific art therapy interventions designed to address the transition into high school. Particular attention focused on decreasing anxiety and depression symptoms and increasing self-esteem. Each of the six interventions (see below) were administered consecutively and repeated twice over the course of the study.

Intervention 1. Participants in the experimental group were instructed to choose one

Figure 1 Predesigned Mandala
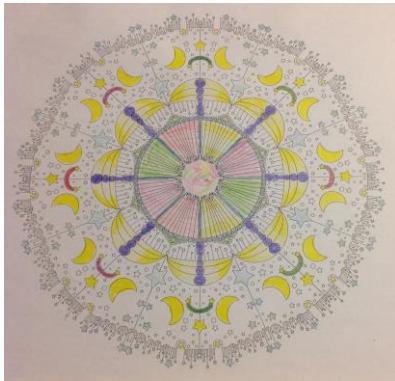
predesigned mandala template and used color pencils, markers, crayons, and oil pastels to complete the design. Benson (1975) indicated that repetitive motion helps to induce a state of relaxation. Curry and Kasser (2005) evaluated the effectiveness of coloring pre-drawn mandala patterns in the reduction of anxiety. According to Kasser (2005), anxiety levels were measured before and after an anxiety induction exercise. Kasser (2005) reported decreases in anxiety were experienced for those participants completing pre-drawn mandalas. Sandmire, Gorham, Rankin and Grimm (2012) assert that the relaxing effect of art making enables participants to enter a "flow-like state" and that this condition can decrease anxiety (73).

Intervention 2. Another intervention directed participants to create self-portraits using

any of the art media provided (charcoal, color pencils, markers, oil pastels, ink, or mixed media). According to Cockle (1994), a self-portrait has been shown to be an effective art experience through which children can express their feelings regarding self and their environment (p.46). Furthermore Cockle (1994) maintained that the creative process

Figure 2 Self-Portrait   while in the context of a supportive therapeutic relationship seems to

bring about positive movement and change. Schaverien (1990) asserted that the creation of

frontal portrait often implies the need to recognize and accept something that is difficult to

acknowledge. Dalley, Rifkind, and Terry (1993) supported Schaverien (1990) and stated that a

self-portrait may represent the individual's need to face up to something difficult to accept.

According to Haens (2007), self-portraits provided a true-to-life representation of the diseased

aspects of the self which ultimately enabled the clients to work through defense mechanisms that

distort their sense of self and life circumstances (p.36).

Intervention 3. The third intervention required participants to use a white piece of paper

and precut images from magazines and text to design a collage. Participants were provided with scissors to alter images or text before gluing them to the paper surface. Stallings (2010) affirmed that collage making appears to be a good avenue of expression, providing a nonverbal mode of communication, which allows expression beyond the verbal and cognitive abilities of participants.

Figure 3 Collage

Intervention 4. According to Kimport and Robbins (2012), "the use of clay in art therapy has a long history and has been the source of a great deal of theoretical writing, often within the psychoanalytic tradition" (see Henley, 2002; Sholt & Gavron, 2006,p.74). The fourth

intervention asked participants to use a lump of clay and work it with their hands until it became warm and malleable. Participants were prompted to mold the clay

Figure 4 Sculpture   into a pleasing form which could be an animal, a person, an object or abstract form. Henley (2002) supported the use of clay work asserting that it allows clients to express and discharge negative emotional states such as aggression.

Intervention 5. Another intervention instructed participants to visualize a landscape from

their imagination and paint it on a piece of white paper using acrylic paints or watercolors. Participants were free to add detail to their initial paintings by using water color pencils, markers, crayons, pastels and fine-tip permanent markers. According to Dalley (1984), the process of painting can be relaxing, satisfying,

Figure 5 Painting

frustrating, even mildly 'therapeutic' and it is through this process that participants create a concrete rather than verbal medium through which a person can achieve both conscious and unconscious expression, which can be used as a powerful agent for therapeutic change.

Intervention 6. The final intervention asked participants to arrange a variety of objects in a pleasing orientation and draft the still life with pencil. After the pencil draft is completed, participants were able to use a variety of drawing pencil hues and tones to elaborate on the still life's form and dimension.

Figure 6 Still Life

Measurement Tool (BASC-2)

The Behavior Assessment System for Children, Second Edition (BASC-2) is an instrument used to evaluate the behavior and self-perception of children and young adults ages 2 through 25 years. The BASC-2 Self-Report of Personality (SRP) measures numerous aspects of behavior, personality, emotions and self-perceptions including positive (adaptive) as well as negative (clinical) dimensions. Differential diagnosis is an increasingly important issue facing educational systems. The complexity of problems encountered by school aged children requires an array of interventions that must be tailored to the student's needs. Academic difficulties are frequently linked to behavior problems (Reynolds & Kamphaus 2004). The interactions between syndromes like depression and attention deficit hyperactivity disorder, to name a few, have been known to have academic consequences. Conversely, students with learning disabilities or those classified as intellectually disabled often suffer from adjustment problems such as low self-concept or anxiety. In addition, research demonstrates that good behavioral assessments of constructs such as Attitude to School, Attitude to Teachers, Study Skills, Attention Problems, and Adaptability, in tandem with cognitive assessments, improve the prediction of both school performance and response to intervention (Yen, Konold & McDermott, 2004).

The Clinical Scales measure maladaptive behaviors. Scores in the Clinically Significant range suggest high levels of maladjustment. Scores in the At-Risk range identify either a significant problem that may not be severe enough to require formal treatment, or the potential of developing a problem that needs careful monitoring (Reynolds & Kamphaus, 2004). The BASC-2 also provides information about a child's adaptive functioning. The Adaptive Scales measure positive adjustment. Unlike scores on the Clinical Scales, high scores on the Adaptive Scales represent positive or desirable characteristics, and low scores represent possible problem areas (Reynolds & Kamphaus, 2004). Interpretation of results on the BASC-2 Self-Report may be tempered as indicated by responses on the L index (Reynolds & Kamphaus, 2004). This index is designed to assess the tendency of participants to give an extremely positive picture of themselves.

The *DSM-IV-TR* diagnostic criteria regarding anxiety disorders identify a number of behaviors which are included on the BASC-2 Anxiety scale (Reynolds & Kamphaus, 2004). Many of the symptoms included in the *DSM-IV-TR* criteria are assessed by the BASC-2 Depression scale, including dysphoric mood, suicidal ideation, withdrawal from others and self-reproach. Many of the items were written as quoted statements that assess the presence of maladaptive child cognitions about self, the world, and the future (Beck, 1967, 1976). According to Reynolds and Kamphaus (2004), the BASC-2 Self-Esteem scale assesses self-satisfaction, with reference to both physical and to more global characteristics. High scores on this scale are indicative of positive self-esteem. Such individuals are often seen by others as warm, open, venturesome, and self-assured. Reynolds and Kamphaus (2004) asserted that individuals with high Self-Esteem scale scores typically have good peer relationships, a positive

sense of their identity, and appropriate levels of ego strength. Inversely, Reynolds and

Kamphaus (2004) maintained that individuals with low self-esteem, and particularly those with

Clinically Significant T scores, tend to reveal a pervasive sense of dissatisfaction with the self.

Shyness and a feeling of tension are often evident, and the possibility of anxiety and depression

exists. According to Kamphaus et al., (2003) some adolescents possess low self-esteem in the

absence of any other self-reported difficulties.

School Problems Composite Scale

Scales on the BASC-2 School Problems composite are intended to provide a broad

measure of adaptation to school and include Attitude to School, Attitude to Teachers, and

Sensation Seeking. The Attitude to School scale surveys the respondent's general opinion of the

utility of school, along with his or her level of comfort with school related matters. The Attitude

to Teachers scale assesses the individual's perception of teachers as being uncaring, unfair, or

unmotivated to help their students. Similarly to the Attitude to School scale, Attitude to Teacher

scale scores may fluctuate in reaction to recent occurrences of conflict (or special assistance

from) a teacher or school administrator (Reynold & Kamphaus, 2004). Sensation Seeking has

been defined as having the "need for varied, novel, and complex sensations and experiences and

the willingness to take physical and social risks for the sake of such experiences" (Zuckerman,

1979, p. 10). This scale assesses this trait by investigating both the desire to engage in thrilling

or potentially hazardous activities and a preference for excitement associated with risk-taking.

School conduct problems may often be seen in individuals who received high Sensation Seeking

scores. According to Reynolds and Kamphaus (2004), high scores on the Sensation Seeking

scale indicate potential alcohol and drug use or experimentation. The authors emphasized that

when accompanied with low Anxiety scores, high Sensation Seeking scores tend to be associated with the diagnosis of conduct disorder. Reynolds and Kamphaus (2004) underscored that Sensation Seeking is related to antisocial behavior and it has not been associated with Attention Deficit Hyperactivity Disorder. Furthermore, high scores in the Sensation Seeking scale also may be seen with elevated Depression scores, especially in males. According to Reynold & Kamphaus (2004) such individuals may increasingly engage in risk-taking behaviors to overcome depressive feelings that are not understood and to overcome anhedonia (a psychological condition characterized by inability to experience pleasure in normal pleasurable acts), a common depression symptom.

The child's relationships in the school setting are extremely salient in the child's life. Reynolds and Kamphaus (2004) maintained that high scores on the School Problems composite indicate pervasive patterns of dissatisfaction with schooling, school personnel, and the structure of the educational process. According to the authors, individuals scoring in the At-Risk range may be experiencing academic deficiencies which are usually associated with severe problems in school and within the school environment. Furthermore, Reynolds and Kamphaus (2004), contended that adolescents with such scores may be at risk of dropping out. According to Reynolds and Kamphaus (2004), various studies of sensation-seeking behavior have shown clear sex and age differences, with males scoring higher than females and its manifestation peaking in late adolescence and young adulthood (for example see, Eysenck & Eysenck, 1985; Zuckerman, 1979).

Internalizing Problems Composite Scale

According to Reynolds and Kamphaus (2004), the BASC-2 Internalizing Problem composite consists of Atypicality, Locus of Control, Social Stress, Anxiety, Depression, and Sense of Inadequacy. Unusual thoughts and perceptions commonly associated with severe forms of psychopathology such as psychotic disorder are evaluated in the Atypicality scale. Elevated Atypicality scores could highlight a variety of problems including confused thought, serious thought disorder, severe emotional disturbances, poor ego strength and/or a decompensating process (Reynolds & Kamphaus 2004).

For Reynolds and Kamphaus (2004), the Locus of Control scale assesses an individual's perception of his or her level of control over external events. The authors suggested that low scores on this scale may indicate the perception of having internal control over events, whereas high scores indicate a belief of being controlled by others or by fate or some other abstract force. The external forces, referred to by the authors, typically include authority figures such as parents or teachers. Overall, this scale gauges a major component of a child's attribution system.

The Social Stress scale evaluates the intensity of stress experienced by children in relation to their interactions with peers and others. According to Reynold & Kamphaus (2004), feelings of tension, pressure, and lack of coping resources (especially outlets through close friends and social contact) are evident in social stress. Scores in the at-risk range or higher may show problems related to anxiety, confusion, and somatic complaints. The authors suggested that young children with clinically significant scores may have a tendency to turn inward in an unsuccessful attempt to cope with those tensions. They may appear shy and be prone to guilt, but they may be emotionally labile and may display an unexplained edginess or hyperirritability.

According to the authors, the Sense of Inadequacy scale measures perceptions of low achievement expectations, a tendency not to persevere, and a perception of being unsuccessful in academic endeavors. Reynold & Kamphaus (2004) suggested that the scale is related to the concept of level of aspiration, in that the child who sets or accepts unrealistically high goals would be likely to score high on this scale. The authors also asserted that respondents may feel inadequate to meet the expectations set either by themselves or by others. Reynold & Kamphaus (2004) characterized the Internalizing Problems composite as a broad index of inwardly directed distress that reflects internalizing problems a child may be experiencing.

Inattention/Hyperactivity Composite Scale

The BASC-2 inattention/hyperactivity composite assesses possible attention deficit hyperactivity disorder.

Emotional Symptoms Index Composite Scale

According to Reynold & Kamphaus (2004), the Emotional Symptoms Index (ESI) is the BASC-2's most global indicator of serious emotional disturbance, particularly internalized disorders. It is composed of four scales from Internalizing Problems composite (Social Stress, Anxiety, Depression, and Sense of Inadequacy) and two scales from the personal adjustment composite (Self-Esteem and Self-Reliance). When used as part of the ESI, scores on the Self-Esteem and Self-Reliance scales are inverted making high scores on these scales indicative of more problems. Reynold & Kamphaus (2004) suggested that elevated scores on the ESI almost always signify the existence of serious emotional disturbance that is broad-based in its impact on the thoughts and feelings of the individual.

Personal Adjustment Composite Scale

The personal adjustment composite consists of the Relationship to Parents, Interpersonal Relationships, Self-Esteem, and Self-Reliance scales. Unlike scores on the clinical-scale composites, high scores on this composite indicate positive levels of adjustment, and low scores indicate problematic levels of adjustment. At-Risk scores suggest problems with interpersonal relationships, self-acceptance, identity development, and ego strength. Scores in the clinically significant range often indicate deficiencies in one's support system and coping skills. Low scorers on this scale will tend to have disturbed peer relationships, to be prone to withdrawal and introversion, to repress uncomfortable feelings and thoughts, and to have few positive outlets for alleviating stress.

According to Reynolds and Kamphaus (2004); with regards to the *DSM-IV-TR* diagnosis, low personal adjustment composite scores are more likely to be related to adjustment disorders and certain Axis II personality disorders than to internalizing problems. An elevated score on the internalizing problems composite accompanied by a low score on the personal adjustment composite denotes the likelihood of serious problems and a lack of both support and effective coping strategies.

Data Analysis Procedures

The statistical analysis of data assessed change using pre and post intervention scores on BASC-2 self-report questionnaires between the experimental and control groups. Another level of analysis specifically compared changes using pre- and post- intervention scores on BASC-2 self-report questionnaires within academic track between the experimental and control groups. Statistical analysis was performed with IBM SPSS Statistics 20. Independent sample *t*-tests were

conducted within each of the three academic tracks comparing change in mean scores for

participants in the experimental group and the control group, and mixed ANOVA was used to

look at the data across the academic tracks. The variables tested were Anxiety, Depression and

Self-Esteem, School Problems, Internalizing Problems, Inattention/Hyperactivity Problems,

Emotional Symptoms Index and Personal Adjustment.

Qualitative Data Analysis Procedure: Formulating Meaning and Themes

The qualitative feature of the study aimed to understand participants' perceptions of their

artwork at the onset and conclusion of the art therapy intervention. The experimental group

participants' responses to open ended prompts were coded and analyzed through the

interpretative technique of content analysis. Specifically, in the first cycle of coding, the

researcher utilized affective coding methods which investigated participant's emotions, values,

and conflicts during the art making experience. According to Saldaña (2013), although some

researchers may perceive affective methods of coding as lacking objectivity or rigor, "affective

qualities are core motives for human action, reaction, and interaction" (p. 105). Specifically,

Emotional Coding techniques were used by the researcher to label emotions inferred by the

participants. Goleman (1995) defined an emotion as "a feeling and its distinctive thoughts,

psychological and biological states, and range of propensities to act" (p. 289). Saldaña (2013)

suggested that Emotional Coding is useful in particular with qualitative studies that explore the

intrapersonal and interpersonal participant experiences and actions. Descriptive coding

techniques were utilized in the next cycle of coding. During this process labels were assigned to

data strands which summarized in a word or a phrase the basic idea of the statement. This

method of coding provided an inventory of categories. Tesch (1990) asserted that, "these [codes]

are identifications of the topic, not abbreviations of the content which is the substance of the message" (p. 71). Finally, the researcher generated themes directly identified in the data set or on a latent level, which underlined the phenomenon explored. Themeing the data provided a brief profile that identifies what units of data are about and what those units mean. According to Boyatzis (1998), a theme, at a minimum describes and organizes possible observations or at the maximum interprets aspects of the phenomenon either directly or by underlying the phenomenon. DeSantis and Ugarriza (2000) maintained that, "a theme is an abstract entity that brings meaning and identity to a recurrent [patterned] experience and its variant manifestations thus capturing the nature of the experience into a meaningful whole (p. 362).

Setting

The setting for the study was an all-boys private high school in the South Bronx, accredited by The Board of Regents of The University of the State of New York and the Middle States Association of Colleges and Schools. Personnel involved in the study were the Director of the Guidance Counseling Department at the high school, several student interns who aided in the collection of data particularly the BASC-2 questionnaires, and the author, who also served as an art therapist and counselor at the setting. The Director of the Guidance provided demographic data for the participants in the study.

Participants The total number of participants was 162. The ethnic breakdown of the students in the study included 38 African Americans, 113 Latinos, 4 Asians and 7 Caucasians. Seventy-five percent of the sample population resided in the Bronx. Approximately 22% resided in Manhattan. At the time of the study, 44% of the sampled students resided in single parent homes. Fourteen percent of the students in the study were receiving public assistance at the time

the study was conducted. Approximately, 78% of the population sampled received some type of

financial support to offset the cost of tuition.

Table 1

Demographic Information for Sample Population

Demographic Information	Amount	Percentage
Ethnicity		
African American	38	23.5%
Latinos	113	69.7%
Asian	4	2.5%
Caucasian	7	4.3%
Residence		
Bronx	121	74.7%
Manhattan	35	21.6%
Other	6	3.7%
Single Parent Households		
Yes	71	43.8%
No	91	56.2%
Public Assistance		
Yes	23	14.2%
No	139	85.8%
Total Enrolled	**162**	

Source: Data compiled from student demographic surveys.

Table 2

Study Participant Breakdown

	Experimental Group	Control Group	Totals
Honors Track	29	24	53
Average Track	26	26	52
At-Risk Track	25	26	51
Totals	**80**	**76**	**156**

CHAPTER 4

Results

For the BASC-2 scales of Anxiety, Depression, School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, and Emotional Symptoms Index, clinically significant T-scores fall within a range of 70 and above, at-risk T-scores range from 60-69, and typical T-scores fall within a range of 59 and below. For the adaptive scales of Self-Esteem and Personal Adjustment, clinically significant T-scores fall within a range of 30 or lower, at-risk T-scores range from 31-40, and typical T-scores fall within a range of 40 and above. T-scores indicate the distance from the non-clinical group mean of 50 and a standard deviation of 10.

At pre-intervention, 52% of all participants' overall Anxiety scores ranged below the reported mean for a non-clinical population. Seventy-six percent of the participants overall Depression scores fell below the mean for a non-clinical population. For Self-Esteem, 26% of participants overall scores fell below the mean. For School Problems 54% of participants scored below the non–clinical mean, while for Internalizing Problems, 61% of participants scored below the mean, respectively. Sixty percent of participants scored below the non-clinical mean for Inattention/Hyperactivity Problems. For Emotional Symptoms and Personal Adjustment respectively, 64% and 44% of participants scored below the mean for a non-clinical population.

For participants in the experimental group, 46% scored below the overall mean for Anxiety while 71% scored below the non-clinical mean for Depression. Thirty-one percent scored below the non-clinical mean for Self-Esteem. For School Problems, 54% scored below the overall mean. Fifty-seven percent of participants and 56% of participants scored below the non-clinical mean for Internalizing Problems and Inattention/Hyperactivity Problems,

respectively. For Emotional Symptoms index, 59% of participants scored below the mean.

Forty-eight percent of participants scored below the non-clinical mean for Personal Adjustment.

For participants in the control group, 58% scored below the overall mean for Anxiety,

while 80% scored below the non-clinical mean for Depression. Twenty-one percent scored below

the non-clinical mean for Self-Esteem. For School Problems, 54% scored below the overall

mean. Sixty-six percent of participants scored under the non-clinical mean for Internalizing

Problems. Similarly, 63% of participants scored under the non-clinical mean and

Inattention/Hyperactivity Problems. For Emotional Symptoms Index, 68% of participants scored

below the mean. Forty-two percent of participants scored below the non-clinical mean for

Personal Adjustment.

For participants in the Honors Track, 53% scored below the overall mean for Anxiety.

Seventy-two scored below the non-clinical mean for Depression while 32% scored below the

overall mean for Self-Esteem. For School Problems and Internalizing Problems, 55% and 62% of

participants scored below the overall non-clinical mean. Fifty-seven percent of participants in the

Honors Track scored below the overall mean for Inattention/Hyperactivity Problems. For

Emotional Symptoms Index, 60% of participants scored below the non-clinical mean. For

Personal Adjustment, 53% of participants scored below the non-clinical mean. For a comparison

of Honors Track participants in the experimental and control group refer to Figure 7.

Figure 7.Comparison of Honors Track Pre Intervention Experimental and Control Group

At pre-intervention, 46% of participants in the Average Track scored below the overall non-clinical mean for Anxiety. For Depression, 85% of participants in the Average Track scored below the overall non-clinical mean. For Self-Esteem, 23% of participants scored below the non-clinical mean. Forty-six percent of participants scored below the non-clinical mean for School Problems, while 58% scored below the mean for Internalizing Problems. For Inattention/Hyperactivity Problems 60% of the participants in the Average Track scored below the overall mean. Sixty-nine percent of participants scored below the non-clinical mean for Emotional Symptoms Index. For Personal Adjustment, 37% of participants scored below the mean. For a comparison of Average Track participants in the experimental and control group see Figure 8.

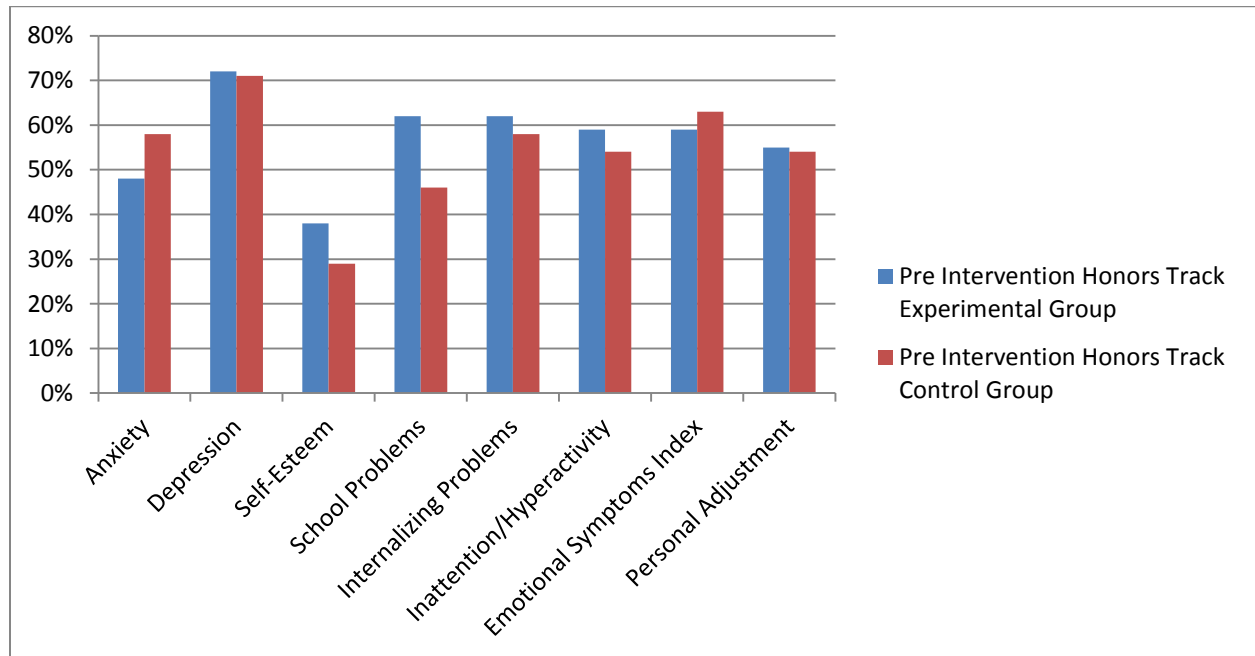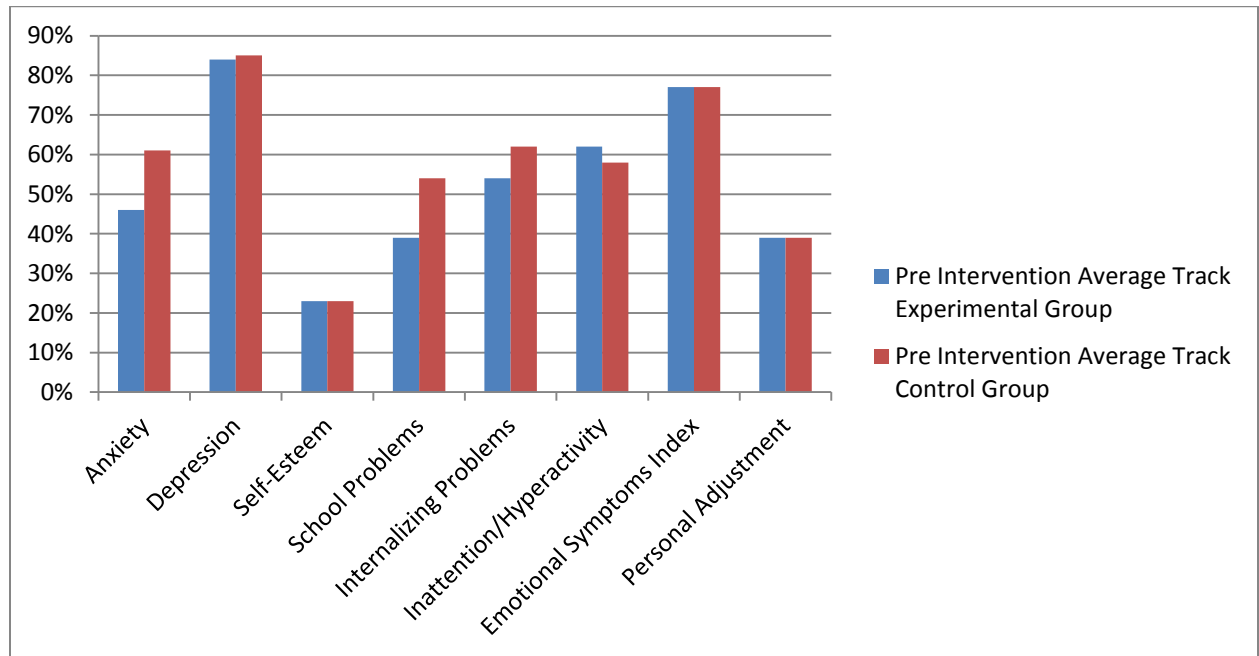*Figure 8.Comparison of Average Track Pre Intervention Experimental and Control Group*

For participants in the At-Risk Track, 61% of participants scored-below the overall non-clinical mean. Seventy-seven percent of participants in the At-Risk track scored below the mean for Depression. For Self-Esteem, 24% of participants scored below the mean. For School Problems and Internalizing Problems, 61% and 65% of participants scored below the overall non-clinical mean, respectively. Sixty-nine percent of participants in the At-Risk Track scored below the overall mean for Inattention/Hyperactivity Problems. For Emotional Symptoms Index, 67% of participants scored below the mean. Forty-seven percent of participants scored below the non-clinical mean for Personal Adjustment. For a comparison of At Risk Track participants in the experimental and control group refer to Figure 9.
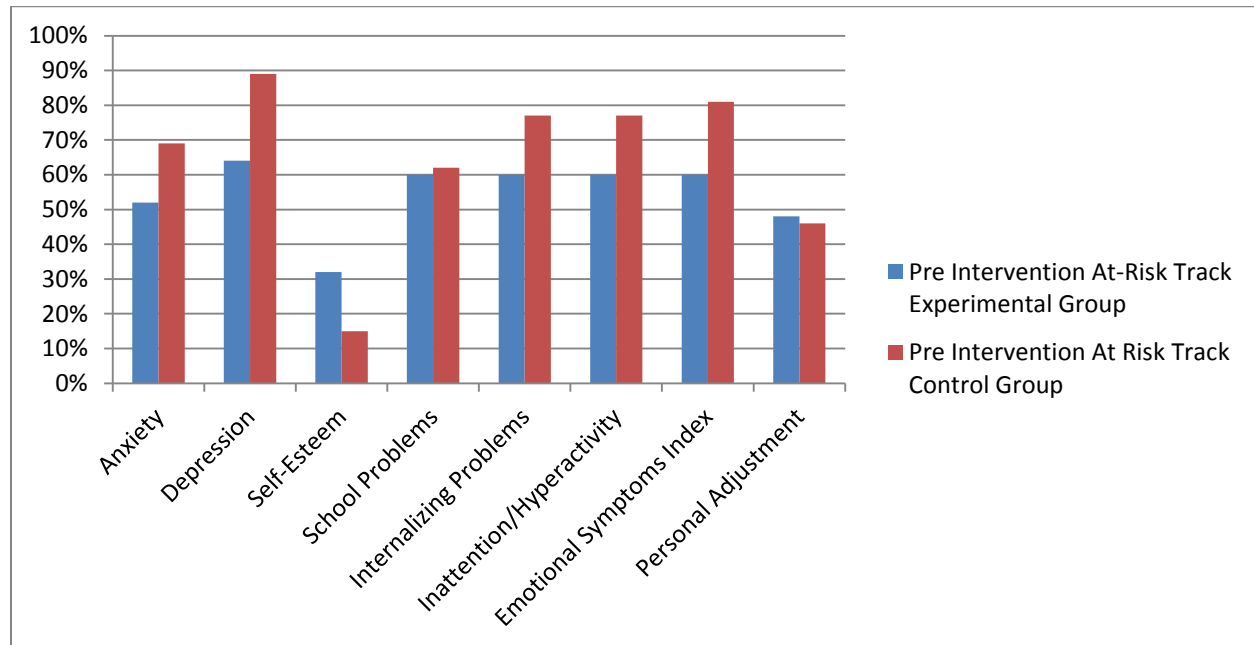
Figure 9.Comparison of At-Risk Track Pre Intervention Experimental and Control Group

Honors Track

Independent samples *t*-tests were conducted comparing participants in the Honor Track who received art therapy against participants who did not. Based on the observed data, the null hypothesis was rejected with regard to Inattention/Hyperactivity Problems (t (51) = 1.854, p<.035, 95% CI for the difference [-.86761, 21.78428]). Participants in the experimental group had a significant decrease in Inattention/Hyperactivity compared to those in the control group but significant differences were not noted on Anxiety, Depression, Self-Esteem, School Problems, Internalizing Problems, Emotional Symptoms Index or Personal Adjustment. Cohen's d effect size was calculated for Inattention/Hyperactivity Problems at 0.58.

Average Track

Independent samples *t*-tests were performed comparing participants in the Average Track who received art therapy against participants who did not. Based on the observed data, the

null hypothesis was rejected with regard to the Personal Adjustment Composite (t (50) = 2.086,

p<.021, 95% CI for the difference [4.2858, 22.57142]) and for the Self-Esteem scale (t (50) =

2.762, p<.004, 95% CI for the difference [4.31333, 27.30205]). Participants in the experimental

group had a significant increase compared to the control group in Personal Adjustment and Self-

Esteem but significant differences were not noted on Anxiety, Depression, School Problems,

Inattention/Hyperactivity Problems, Internalizing Problems, or Emotional Symptoms Index.

Cohen's d effect size was calculated for Personal Adjustment at 0.61 and Self-Esteem at 0.61.

At Risk Track

There were no significant statistical differences noted on any of the BASC-2 composite

or clinical scales for participants in the At-Risk track.

Table 3

Independent Sample T-Test Results for all Academic Tracks

	Experimental Group			Control Group				
	N	*M*	*SD*	*N*	*M*	*SD*	*t*	*p*
Honors Track								
Inattention/Hyperactivity	29	4	19.4	24	-6.46	21.65	1.86	.035
Average Track								
Personal Adjustment	26	.85	19.03	26	-10.65	20.69	2.09	.021
Self-Esteem	26	3.73	23.37	26	-12.08	17.48	2.76	.004

Repeated Measures ANOVA

Two way ANOVA was used to test the effects of Academic Track, Group, and their interaction on BASC-2 variables of Anxiety, Depression, Self-Esteem, School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, Emotional Symptoms Index and Personal Adjustment. Only the School Problems scale showed any significant effects. There was a significant effect for group (the experimental group improved more than the control group), and there was a statistical effect of academic track (F (2,149) = 3.384, $p < .037$. The interaction was not statistically significant. For Academic track, students in the At Risk group show greater improvement than those in either the Honors or Average track (see Figure 10).
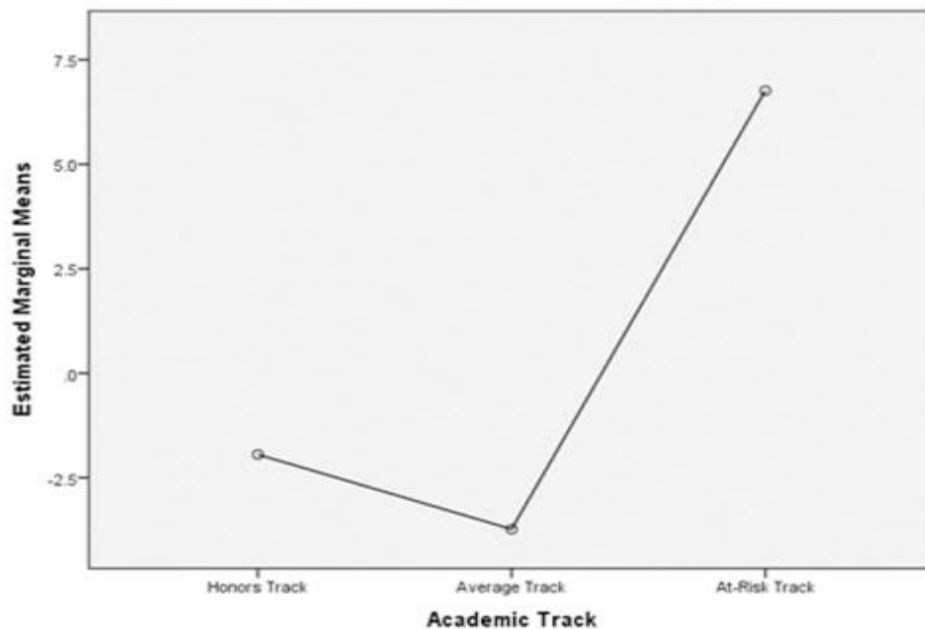
Figure 10.Estimated marginal means of school problems post-pre difference.

Qualitative Feature

Data collected from the experimental group participants responses to the post-art therapy reflection questions were analyzed and coded.

Table 4 displays the nine themes identified by the researcher and an example of the textual statement.

Table 4

Emergent Themes

Theme	Textual Example
Sense of Ownership	*"That it may not be the best but it's my own artwork. It is what came from the heart and no one can replace it."*
Introspective	*"This piece is a motivation to me to keep pushing for the life I want. I want this but I also have to go out and get it's by hard work and determination."*
Cathartic	*"What this piece means to me is a thing to help me relax like if I'm upset of something I can think of this to help me calm down. Basically it is a place to get away to."*
Ventilation of Negative Affect	*"School can be boring and annoying… Before I drew it I was tired and upset."*
Expression of Positive Affect	*"After I created this piece, I knew that I had accomplished what I wanted to. When I looked at the complete project, I saw complete peace, with no negative energy near it at all.*

	I felt happy that this painting became a part of me."
Future Projection	*"This is how I would like to see life. I would like to be full of happiness and joy all the time."*
Concrete Descriptors	*"The pac-man character is doing what he is programmed to do is gather a high score by defeating its enemies."*
Symbolic Language	*"This artwork is of a basketball in the world that has perservered [persevered] through hard dribbles at the parks and it's still the same ball. I can use this as a[n] analogy for me."*
Change in Affect	*"I felt like a productive person. I felt like I could make people happy. I was sad during the time I was making this picture. Also I was depressed befor[e] I drew the artwork."*

Seventy-eight participants responded to the qualitative questions, 29 were from the Honors Track, 25 participants were from the Average Track and 24 were from the At-Risk Track.

Honors Track

Eighty-six percent of participants in the Honors Track expressed varying degrees of positive affect when describing the emotions post art creation. When describing the art piece that possessed the most emotion, 41% of participants reported negative affect prior to creating artwork which usually centered on conflict at school or frustrations with academic life. When

asked to explain what aspects of the artwork indicate emotion, 55% of responses attributed a

capacity to ventilate negative affect with the art product, 10% described their work as a release

of negative affect and 41% indicated they felt negative emotions prior to creating the artwork.

Thirty-one percent of responses were concrete descriptors, while 21% used symbolic language

such as metaphors to describe the art product or experience. Twenty-four percent of participant

responses indicated a sense of ownership of the art product as well as the artistic process.

Honors Track participants reported experiencing positive affect in each question; 79% indicated

positive emotional content, 28% described the artwork in positive terms, 34% felt positive before

creating the artwork, and 31% attributed positive meaning to the art piece several weeks after its

creation. Responses for Honors Track participants were classified into four themes; ventilation

of negative emotions, expression of positive affect, concrete descriptors and use of symbolic

language (Refer to Table 5).

Table 5

Emergent Themes Percentages for Honor Track

Themes	Artwork Descriptions	Pre Art Making	Post Art Making	After Several Weeks of Reflection
Ventilation of Negative Emotions	34%	41%	3%	3%
Expression of Positive Affect	28%	34%	86%	31%
Concrete Descriptors	31%	3%	0%	0%
Symbolic Language	21%	3%	0%	0%

In general their responses were more optimistic and included comments like;

- *I was happy because I created a decent painting*

- *I felt satisfies, because I got put down things I enjoy. It helped continue my good mood.*

- *I felt like I should express myself and my thoughts. I should also tell people*

- *I felt that I painted what I felt. The yellow in the canvas can be seen as how bright and in a good mood I was in. The blue can be viewed in a good mood as well.(I felt good and accomplished. As well as content w/ my artwork)*

- *After creating this, I was proud of myself. I created something that I thought was hard to do. I was happy that I could finish with a nice product.*

- *I also felt good because I let out my feelings on my artwork.*

- *I was pretty amazed by what I saw. All I have done is follow the instincts in what to draw. My hand did all the work I just try to picture it.*

- *I felt truly satisfied at my artwork and now that I look at it again, I really like it. I loved the design and the colors that I chose. I can use the design of this as an analogy for many things in life.*

- *I felt proud of myself for completing a piece like this. I tried my best and I wanted people to see it my way.*

- *I felt that I created a good artwork that not only describes myself, but describes the way I act every day. Through the artwork it describes my eagerness to do my best and succeed in what I can do well and what I can't.*

- *I felt that the piece looked better than I expected. I loved the way it looked when it was finished and my classmates also like the collage.*

- *I felt happy that I had drawn an image that really expressed some emotional energy. I finished something that I didn't know I was going to draw in the first place.*

- *I felt very proud on how my artwork came out. It was better than I expected. It wasn't what I intended to draw but it was a good illustration.*

- *After I created the artwork I felt like my emotions were revealed on the paper. These emotions that were racing through me were now seen. I felt better after all of this was drawn.*

- *After I created the artwork I felt good because I got to relieve some stress by painting something I enjoy which is basketball.*

- *I felt very energetic and excited after creating this artwork.*

- *I was still tired but I felt a little happier because I thought I made a very good art piece and whenever I create something good I feel better than usual.*

- *After I created this I was amazed because I really didn't think I was going to do such a good job.*

- *After I created the artwork I felt more at peace and relaxed. I had poured all of my emotion out on the painting.*

- *I felt satisfied after this, it was extremely fun.*

- *I felt good that I was able to create a cool piece of artwork that means something to me and I was able to describe how I feel on them.*

- *I was sluggish and depressed as if I put all my energy into the artwork and relieved myself of all my cares and stress.*

- *I still felt adventurous and wanted to go sightseeing. I had a strong desire to go have an adventure.*

- *After I created this artwork I felt inspired. I knew I can reach my goals, no matter how high the bar is.*

One participant reported negative association with their artwork after creating it. The participant reported, "*I felt sad after I created this artwork because I remembered the characters I grew attached to. To see their stories end made me depressed for a while after. It's not like every game character can make me remember them for the rest of my life.*" The participant was making reference to video game characters and his affinity for them. The artwork was a collage piece which included several video game references. When participants were asked what the art piece means to them now that they had time to reflect on it most of the comments reiterated their positive associations to the experience. One participant did however have a negative association reporting, "*This piece means that the world is a very crazy place. There is so much symbolism in the world that it confuses many people and when we try to interpret them, it turns into a mess.*" For respondents perceptions of the emotion in the art piece selected in the please refer to Table 6.

Table 6

Honors Track-What about this art piece indicates emotions?

Positive Responses	Negative Responses
"…determination and love… protect the love"	*"looks like it's raining fire. It also has a dull*
"It gives off a jovial feeling."	*yellow it looks sad."*
"Happiness" (x3)	*"There are multiple emotions: fear, anger,*
"…peaceful because it feels you're watching	*hate, happiness, sorrow, insanity and envy."*
the sun set on a cliff."	*"The figure is in melancholic state as a result*
"This indicates me being very intelligent."	*from realizing his/her existence is trivial."*
"…peaceful and be in harmony…"	*"This piece shows blankness, but a world of*
"…serenity, power of through symbolism…it is	*emotion behind the plain face."*
a meaning of confidence, a sense of urgency to	*"I am failing in some classes."*
show the real side of self."	*"…a feeling of sadness due to its darker*
"…says something that I absolutely adore.	*colors." (x2)*
"…makes me feel calm and excited."	*"…indicates hurt and sadness. It shows flakes*
"It's a relaxing drawing."	*of blood and bullets and smoke. It shows war.*
"…blue represents peace green represents	*These things are represented in dark drops.*
happiness."	*These emotions are being seen by everyone."*
"It feels peaceful and relaxing, like it would	*"The emotion is either rage or anger."*
feel if I was there in person. I also want to see	*"…the black represents emptiness."*
a place like this in real life."	*"…mad and sad…*

Average Track

For participants in the Average Track, 16% of responses indicated negative emotions prior to creating the artwork. Inversely, 80% of participants reported experiencing positive feelings after creating the art work. In general, participants in the Average Track reported experiencing positive affect in each question regarding artistic creation; 60% attributed positive associations with the artwork, 16% described the artwork using positive terms, 48% described positive affect before creating the art piece, and 20% ascribed positive feelings when reflecting on the work after several weeks. Average Track participants used concrete descriptors in identifying aspects of the artwork with high emotional content and describing the artwork, 24% and 64%, respectively. Thirty-two percent of the responses indicated a sense of ownership over the art product and the artistic process. Four themes emerged from Average Track participant responses; sense of ownership, ventilation of negative feelings, expression of positive affect and concrete descriptors (Refer to Table 7).

Table 7

Emergent Themes for Average Track

Themes	Affect Indicated by Artwork	Artwork Descriptions	Pre Art Making	Post Art Making	After Several Weeks of Reflection
Sense of Ownership	0%	0%	4%	0%	32%
Ventilation of Negative Feelings	0%	8%	16%	4%	4%
Expression of Positive Affect	60%	16%	48%	80%	20%
Concrete Descriptors	25%	64%	8%	0%	4%

Participants in the Average Track described their artwork in very concrete terms, naming athletes, teams or sports. Some of these occurrences seemed void of emotional content simple images of team logos or jerseys while others possessed emotionally idealistic fantasies of becoming professional athletes. For example, participants described images of a football player catching a ball, the wrestler John Cena as a central figure of power or an NBA jersey as a wish fulfillment fantasy illustrating their desire to get drafted and become a basketball player. These very concrete manifestations of participant responses can be juxtaposes with participants from the same academic track whose descriptions were abstract, negative and contained many religious references. Some examples, of this phenomenon include;

- *"In the artwork I see the downgrading of c[h]ristian morals. I see the physical form of evil conquering our action and clouding our judgment"*

- *"It is a flame and the middle there is an eagle and [a] cross. It is a burning circle of flames of different colors and the red lines give the effect that it shines."*

- *"I see the mountains and the moon and the dark side or sky on the other side of the mountains and the mountains are gigantic not letting you see the dark side."*

- *"In this artwork the world is ending because we are being invaded by aliens"*

- *"The artwork depicts the controversial principle of multiple universes. The Earths show the principle of a parrell [parallel] universe were the earth has an opposite form. The purple line represents their connection, and the white space around it represents their distance."*

- *"I felt sort of lost in the fact that the universe is so great that there have to be more than just the Earth."*

Participants reported feeling sad, gloomy and tired before creating the artwork. Several participants reported feeling externally stimulated by anger. Others reported an internal buildup of anger, "*Before I created this artwork I felt the anger inside of me building due to the fact that I couldn't let it out and had to hold it in."* Participants also reported feeling anxious, upset, and felt they had a *"shortage of creativity"* while in school. After creating the artwork only two participants reported negative feeling. One participant indicated, "*I still felt bored after I created this artwork because I'm not proud of it. I didn't have that much things to work with"* while another reported, *"I felt not completely satisfied because when I was done, I sort of had a different image."* Despite those responses, participants were generally positive in their associations upon reflection of the artwork. For example, participants reported;

- *"I felt relieved as if all my emotions escaped me and left no tension what so ever."*

- *"I felt proud of my amazing artwork as I basked in its glory."*

- *"I felt happy, since I used the red, orange and yellow. The brightness made me feel a little bit better."*

- *"I felt very good about this image when I finished doing this artwork. Making this artwork made me feel good about sports."*

- *"After I crated the artwork I felt better than before. I felt very happy and I felt that artwork was the best artwork that I made. The piece was well-thought and I put alot of work into this and I'm happy I did."*

- *"I felt strange like nothing could ruin how happy I was it was as impossible as trying to cross over my mountains."*

- *"After I finished creating this artwork I felt satisfied on the way I portrayed my thoughts on the canvas. I felt inspired to learn more about this topic."*

- *"After I created the artwork I felt happy and glad that I was able to put my thoughts and myself to a piece of paper to express how I feel about certain things."*

- *"After the artwork I felt relieve because I was able to reflect my emotions into an art pi[e]ce and was able to let out some of my anger."*

- *"After I created the artwork I felt successful & confident. I actually felt good & was calm because I reflected on this portrait on my life & the opportunities I have encountered."*

- *"I felt calm and relaxed because painting soothed me & I felt good. I felt calm because painting the sea was a relaxing day for me & I love the sea & ocean."*

- *"Now that I have reflected on my piece this piece means to me that I am a normal boy and it is important to express myself in paper so that other people could see who I am and for my own self to know who I am. Reflecting on it I also feel relaxed."*

- *"This is an artwork that I can reflect to my emotions and now that I had time to reflect on it I was able to admire and let my emotions go."*

At-Risk Track

Although 42% of At-Risk Track participants reported a sense of ownership directly after creating the art piece, only 17% continued to express such ownership when reflecting about the artwork after several weeks. The inverse relationship can be noted in terms of introspective comments provided by participants in the At-Risk Track. After the creation of the artwork, 13% of participant's responses indicated some level of introspection, which later increased to 46% after several weeks. Twenty-nine indicated that the process of creating artwork provided some cathartic benefits. Sixteen percent of participants reported experiencing negative feelings before creating the art piece. Similar to Honors and Average Track participants, At-Risk Track participants reported experiencing positive affect on each of the questions; 75% indicated positive emotional content, 13% described the artwork using positive terms, 25% report feeling positive prior to the art making, 21% report feeling positive after making an art product and 13% ascribed positive feelings when reflecting on the work after several weeks. Twenty-nine percent of response suggested fantasy like imagery, usually affiliated with a video game or future projections. Participants in the At-Risk Track described their artwork and experience using concrete descriptors in 88% of responses. Respondents from this academic track also reported experiencing changes in affect during the art making process. These changes were reported in

29% of the responses and often attributed multiple feeling states to singular aspects of the art work or the artistic process. Eight themes emerged from the responses of At-Risk participants; sense of ownership, cathartic release, introspection, ventilation of negative feelings, expression of positive affect, fantasy or future projection, concreter descriptors and change in affect (Refer to Table 8).

Table 8

Emergent Themes for At-Risk Track

Themes	Affect Indicated by Artwork	Artwork Descriptions	Pre Art Making	Post Art Making	After Several Weeks of Reflection
Sense of Ownership	0%	0%	0%	42%	17%
Cathartic Release	0%	0%	0%	29%	0%
Introspection	0%	0%	0%	13%	46%
Ventilation of Negative Feelings	0%	8%	16%	0%	0%
Expression of Positive Affect	75%	13%	25%	21%	13%
Fantasy or Future Projection	13%	8%	0%	4%	4%
Concrete Descriptors	13%	50%	0%	0%	25%
Symbolic Language	0%	4%	4%	0%	0%
Change in Affect	0%	0%	29%	0%	0%

In general, participants expressed negative feelings while in school including anxiety, anger, loneliness, and envy. After creating art within a structured art therapy setting, participants reported feeling relaxed, proud, relieved, and confident. At-Risk Track participants typically enter high school with academic, behavioral or emotional deficiencies. As a result of these deficiencies they are at-risk of failing to successfully complete the requirements for graduation. The participants from the At-Risk Track also face an added stigma as a result of their academic track. Not only do other students identify them as academically deficient but teachers also carry such perceptions and these subsequently become internalized by the participants. For some it serves as motivation but unfortunately for most it is a huge emotional block to overcome. The manifestation of such internalized self-perception usually manifests itself as lack of motivation, defiant behavior, inattention and hyperactivity as well as a low work ethic. A comparison of the positive and negative association is displayed in Table 9.

Table 9

At-Risk Track Response Comparison

Positive Response	Negative Responses
"Before I created the artwork I was happy. I was in a good mood and really energetic. That is why I painted this picture with bright colors. Bright colors represent happiness."	*"...the red sky which is confusion or* *"...sadness..."* *"In this artwork, the black means loneliness."*
"...a little joy and excitement."	*"When I look at this artwork, I see me. Even though I don't have many friends, I'm still*
"I felt happy because it was free time from my	*social because I'm looking for someone I can*

regular classes."

"Before I created this painting I felt calm and relaxed. I also felt the need to be alone for a little while."

"Then I felt happy because I could put my emotions with paint on the board given."

"After I was done I was more relaxed, loose, and calm. I was just cutting [cutting refers to making fun of another classmate], talking, laughing, and joking while still doing work for a teacher. I want every class to be like that."

"After when I was done I felt good and satisfied at my artwork. I had a clear idea and theme for my artwork. It is positive and joyful."

"The butterfly is free of stress, relaxed, and calm."

"Before I created this artwork I felt "bottled in" [be]cause I almost never talk about myself and this helped me express what is really on my mind, heart, and soul."

relate to."

"I felt frustrated. I also felt as if this artwork had no meaning or point until I finished it and understood what it me[a]nt."

"I felt depressed knowing that I had to go to Homework Clinic" [a mandatory afterschool detention for students who fail to do homework]

"School can be boring and annoying"

"I don't know. Probably worried, anxious, anticipating forward progress. I don't know anything about me."

"I felt like crap before I painted this. I was not feeling good that day. I was tired and not in a good mood. But when I painted this I[t] rela[i]ved all the stress I had inside me."

"I was sad during the time I was making this picture. Also I was depressed befor[e]. I drew the artwork."

"I was stressed and worried."

"I was confused at first and I was clueless."

"I knew it would not be as good as I visioned

[envisioned] it to be."

"I felt the loneleness [sic] I've had throughout

my elementary years."

"I wanted to go home."

"I felt that everyone was going to joke about it.

I also felt that after I finished it was not going

to be perfect. I felt that it was still a sign to

someone."

"Unsure. Unknowing of anything."

"What this piece means to me is all the time I

have been heartbroken."

Participants in the At-Risk Track were also very concrete in their artistic representation and responses. Several participants depicted images of athletes, musicians, money and seductive women, *"I see some of the most beautiful girls. I see my idol,* [reference to a basketball player] *looking so focused. I see words indicating my fearfulness of time."* Another participant reported, *"The artwork has a plate of food, a basketball player trying to get up after a foul and the language used to refer to blachs [sic]. I see this as a future lifestyle. Eating shrimp, pictures of me after finishing a basket, and people not referring to me as the N-word just because I made it somewhere in lite [sic]."* The racial undertone may be emblematic of an inferior self-image,

possibly reinforced through peer interaction or academic placement. Academic difficulties may

contribute to the over identification with athletics.

CHAPTER 5

Discussion

Quantitative Results

The purpose of the study was to determine if statistically significant differences could be identified on the BASC- 2 Self Report composite scales (School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, Emotional Symptoms Index and Personal Adjustment) and clinical scales (Anxiety, Depression, Self-Esteem), for academically tracked high school freshman participating in art therapy (Experimental Group) and those not participating in art therapy (Control Group), to determine the efficacy of art therapy in enhancing the academic lives of students. Schools today can no longer afford to simply teach reading, writing, and arithmetic. The task of effectively educating children requires schools to consider their emotional and social well-being, enhancing their academic experience. According to Carey & Carifio (2012), schools are under increased pressure to address student drop-out rates. Dropouts are twice as likely to find themselves entrenched in cycles which perpetuate poverty (Bridgeland, Dilulio, & Morison, 2006). The National Center for Educational Statistics (2011) reported that 59% of federal inmates are high school dropouts. The personal costs to individuals who have dropped out of high school remains immeasurable despite, the very tangible $8 billion taxpayers spend annually supporting public assistance programs (Bridgeland, Dilulio, & Morison, 2006).

Garbarino (1997) suggested that the incorporation of therapeutic approaches immunizes children from the toxicity experienced throughout their development. Pekrun, Gotz, Titz and Perry (2002) advocated for the need to enhance students' psychological well-being by giving

them chances to cope with excessive demands, and by increasing opportunities for success. Achievement pressure and anticipations of failure were reported as major contributors to emotional arousal by Pekrun et al. (2002). Consistent with Randick and Dermer (2013), adolescents are tasked with securing social acceptance and gradually creating an authentic identity and sense of self that will enable them to meet the challenges of the world. Failure to effectively address student concerns has already manifested itself; high school and university students reported experiencing high levels of anxiety in school (Pekrun, Gotz, Titz and Perry, 2002). According to Kessler et al., (2005) anxiety disorders are the most common mental disorder in the United States. With the median age of onset for anxiety disorders at 11, interventions aimed at prevention or early treatment need to focus on the youth.

Sandmire, Gorham, Rankin and Grimm (2012) examined the effect of art making on anxiety and the findings indicate that brief periods of art making can significantly reduce a person's state of anxiety. Unfortunately, anxiety is only one of many factors affecting student's ability to succeed in schools. The frequency and severity of Major Depression in adolescents is a significant public health concern. For McKnew, Cytryn, and Yahraes (1983), the difficulty in diagnosing depression in children and adolescents is that some children and adolescents mask depression with antisocial behavior which can often lead them to be misdiagnosed. Silver (2009) found evidence that strongly negative responses to the drawing task can identify children and adolescents who may be depressed. Accurately assessing depression and facilitating treatment is a paramount task for clinicians. Wadeson (2010), maintained that the creative process involved in artistic self-expression helps people to become more physically, mentally, and emotionally healthy and functional. Through this creative process, Wadeson (2010)

asserted the capacity for individuals to resolve conflicts and problems, develop interpersonal skills, manage behavior, reduce stress, handle life adjustments, and achieve insight. For children, art as a primary means of expression, may service the needs of students and enhance their academic experience. Within an academic setting, art therapy can ameliorate academic difficulties (Loesl, 2010); address peer pressure (Sassen et al., 2005); explore conflicts with teacher and peers (Gibbons, 2010); foster life skills (Spier, 2010); and explore intra- and interpersonal relationships (Sutherland et al., 2010)

In a pilot study that compared 178 academically tracked male high school freshmen participating in art therapy or open studio, statistically significant differences were found on some of the BASC-2 scales. Specifically, participants in the Honors Track Art Therapy group reported statistically significant results for Internalizing Problems, Inattention/Hyperactivity Problems, and Emotional Symptoms Index but not for School Problems or Personal Adjustment. No statistically significant results were reported for participants in the Average Track. However, participants in the At-Risk Track, reported statistically significant results for Internalizing Problems but not for School Problems, Inattention/Hyperactivity Problems, Emotional Symptoms Index or Personal Adjustment (Refer to Table 10).

Table 10

Independent Sample T-Test Results from Pilot Study

	Art Therapy			Open Studio				
	N	*M*	*SD*	*N*	*M*	*SD*	*T*	*p*
Honors Track								
Internalizing Problems	23	-11.5	15.57	20	8.9	2.54	-3.4	.002
Inattention/Hyperactivity	23	-21.39	28.34	20	-.65	23.2	-2.6	.013
Emotional Symptoms	21	-15.83	25.18	23	8.5	24.6	-3.6	.001
At-Risk Track								
Internalizing Problems	25	-9.56	19.89	22	4.59	15.6	-2.7	.01

Despite the statistical significance of some variables, the uncertainty of generating false positives when calculating multiple independent sample *t*-tests requires further statistical inquiry. The Bonferroni correction was calculated and compared using an independent sample *t*-test in each academic track. The alpha value for the BASC-2 variables was calculated at .01. Using the new alpha values, statistical significance was still found on some variables (See Table 11).

Table 11

Independent Sample T-Test Results after the Bonferroni Correction from Pilot Study

	Art Therapy			Open Studio				
	N	*M*	*SD*	*N*	*M*	*SD*	*t*	*p*
Honors Track								
Internalizing Problems	23	-11.5	15.57	20	8.9	2.54	-3.4	.002
Emotional Symptoms	21	-15.83	25.18	23	8.5	24.6	-3.6	.001
At Risk Track								
Internalizing Problems	25	-9.56	19.89	22	4.59	15.6	-2.7	.01

In the pilot study, participants in the Honors Track reported statistically significant differences on the BASC-2 scales of Internalizing Problems and Emotional Symptoms. Regarding the Inattention/Hyperactivity Scale, participants in the art therapy group showed greater positive change when compared to participants in open studio. Art therapy may have been a useful tool which seemed to enhance participant's attention. For the Emotional Symptoms Index, participants in the open studio group reported an increase of positive or desirable characteristics. Participants from the Honors and At-Risk Tracks, engaged in art therapy, reported greater mean changes on Internalizing Problems. This suggests that, participants in the art therapy group may have benefited from art therapy by increasing the level of emotional expression, strengthening participants coping skills and decreasing potential tendencies to internalize problem. The inference can be made, that for participants categorized

at-risk of academic failure, art therapy may serve as an appropriate intervention in increasing coping skills and providing a creative venue in which to test out possible solutions to problems.

In the current study, similar findings support, at least on some level, the potential for art therapy to enhance the academic experience of male high school freshmen. Participants in the Honors Track experimental group displayed a statistically significant reduction in the BASC-2 scores for Inattention/Hyperactivity when compared to the control group; for them art therapy seemed to increase focus and attention. BASC-2 scores for Anxiety, Depression, Self-Esteem, School Problems, Internalizing Problems, Emotional Symptoms Index, and Personal Adjustment were not statistically significant. It is also probable that because participants in the Honors Track enter high school with a stronger academic background and acclimated fairly well to the high school environment that the BASC-2 was not robust enough when assessing the non-clinical population. In general, participants in the Honors Track have an academic record free of major academic deficiencies, behavioral difficulties, or emotional complications.

Participants in the Average Track displayed statistically significant differences on Personal Adjustment and Self-Esteem but not for Anxiety, Depression, School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, and Emotional Symptoms Index. For participants in the Average Track, art therapy may have positively influenced levels of adjustment and self-expression. The creation of an artistic product facilitated by an art therapist may have increased participants levels of self-acceptance, increased ego strength and aided in identity formation. Data gathered from the participant responses to the qualitative questionnaire indicated that through the creative process peer interactions increased, ventilation of uncomfortable feelings occurred, and outlets for alleviating stress were provided. These

findings were not previously supported in a pilot study, where no statistically significant results were reported for participants in the Average Track.

While no statistically significant differences were noted in any of the BASC-2 scales for participants in the at-risk track, previous results from a pilot study report statistically significant results for Internalizing Problems. In general, participants in the at-risk track enter high school with academic deficiencies, behavioral difficulties, and/or emotional complications. It is likely that the duration of the study and/or sensitivity of the BASC-2 were not sufficient to generate statistically significant differences. Although both studies were conducted in group settings following similar methodology, it is possible that the group setting in which the interventions were delivered may not have been suitable for an at-risk population which may require smaller groups, individual sessions or prolonged engagement. Although participants at-risk of academic failure may benefit from art therapy by increasing coping skills and providing a creative venue for self-expression as noted on the pilot study, the comorbidity of academic, behavioral, and emotional difficulties experienced by participants created an unstable environment particularly sensitive to external distractors, critical feedback, and/or skewed perceptions of self. Furthermore, it is also probable that because participants in the at-risk track struggle academically, that the length of the BASC-2 questionnaire (176 questions) may have exhausted the participants and contaminated their responses.

Two way ANOVA was used to test the effects of Academic Track, Group, and their interaction on BASC-2 variables of Anxiety, Depression, Self-Esteem, School Problems, Internalizing Problems, Inattention/Hyperactivity Problems, Emotional Symptoms Index and Personal Adjustment. Only the School Problems scale showed any significant effects. There

was a significant effect for group (the experimental group improved more than the control group), and there was a statistical effect of academic track. The interaction was not statistically significant. For Academic track, participants in the At Risk group show greater improvement than those in either the Honors or Average track. At Risk track participants enter high school with greater incidents of school problems, defined by poor academic performance and a history of disruptive behavior as indicated by elementary school records. Pre-Intervention BASC-2 self-report surveys were collected in September of participant's freshman year. It is possible that participant responses on the BASC-2 pre-intervention surveys were internalized perceptions from previous academic experiences or participant expectations what this new academic experience would be. Adjusting to a new academic environment may also be a contributing factor to the School Problems variable. As At-Risk Track participants became acclimated to the new academic environment and developed the skill sets needed to succeed, improvement on the School Problems variables post-intervention were possibly reported.

Qualitative Results

Honors Track

An overwhelming number of participant responses, 86% indicated positive after the art therapy intervention. That sense of optimism was reinforced when 55% of participant responses indicated that the art product served to ventilate negative feelings. Twenty-four percent of participant responses indicated a sense of ownership of the art product as well as the artistic process. The capacity to metaphorically explore the self, peer relationships, and potential difficulties was evidenced by participant's capacity to use symbolic language (24%). When compared to symbolic language the capacity to use concrete descriptors and identifiers (34%)

seemed to provide for Honors Track participants a balanced combination that enhanced their

capacity to better understand the process. In essence, they were able to move from metaphoric

expression of the self to concrete understanding and application. One Honor Track Participants

wrote, *"The mood of this piece is peaceful and in harmony. It can be seen differently in different*

places but the sky and the ocean are one. To me it feels like a scene from the beginning, when

the world was being created, during a time when animals ruled the world. Before I created it I

had no idea at what to paint. It had to have a sky or the ocean. I was a bit nervous not knowing

which one to draw. I was pretty amazed by what I saw. I followed my instincts on what to draw.

My hand did all the work I just try to picture it. It may not be the best but it's my own creation.

It is what came from my heart and no one can replace it." Honors Track Participants understood

the levels of symbolism and were able to reflect on their artwork and process, "This indicates an

expression of self, whether its serenity, there is power through symbolism. Even if it's the way

the pictures are set up, it represents a confidence, a sense of urgency to show the real side of

self." Participant responses rarely engaged in fantasy or future projection (14%). Participants

from the Honors Track remained on task and understood not only the intervention but were able

to infer possible connections within their own experience. During the art making and reflective

component of the study, Honors Track participants displayed a greater level of adaptability and

compliance than Average Track or At-Risk Track participants. When compared with the

qualitative data of Honors Track participants, those in the experimental group displayed greater

mean change in the BASC-2 scale of Inattention/Hyperactivity Problems which suggests that art

therapy was an effective therapeutic intervention in helping Honors Track participants focus their

attention and reduce hyperactivity. It may be possible that increased attention and reduced

hyperactivity may be a contributing factor to the participant's ability to reflect on the product and process potentially aiding in intrinsic meaning making during the art therapy interventions. These participants are regularly reinforced as students projected to take advanced placement courses and are rewarded by being offered programs both in school and outside of school which are aimed at maximizing their academic success. These factors seem to increase participant's sense of self and positively affirm their academic capacities.

Average Track

Like Honors Track participants, an overwhelming number of Average Track participant responses indicated positive affect after the art therapy intervention, 80%. Sixteen percent indicated that the creation of an art product facilitated in the ventilation of negative feelings. Unlike participants in the Honor Track, those in the Average Track reported a disproportionate amount of concrete descriptors and identifier (72%) when compared to symbolic language responses (16%). Average Track participants seemed capable of representing and reflecting concrete ideas but seemed less capable or resistant to symbolic or metaphorical language. Despite the low percentage of symbolic language used, participants in the experimental group had greater mean changes in Personal Adjustment and Self-Esteem than the control group. Average Track participants indicated a sense of ownership with regards to the artwork and artistic process (32%). The sense of ownership may have aided in participant's engagement and investment in the art therapy interventions.

At-Risk Track

Participants in the At-Risk Track reported the highest percentage of ownership immediately after the art therapy intervention, 42%. However, reflecting on the art product after

several weeks, only 17% of respondents recorded displayed a sense of ownership. Twenty-nine

percent of responses indicated that the experience provided some cathartic quality. Participants'

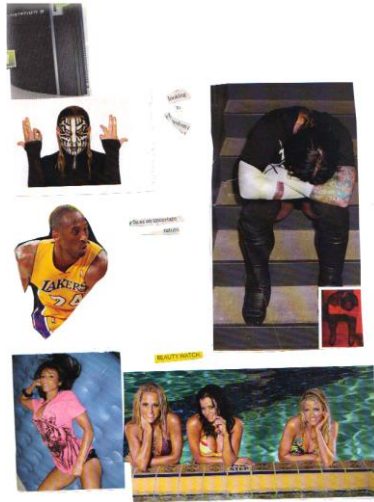responses indicated minor introspection immediately after the creation of the artwork (13%) but

seemed to increase to 46% after several weeks of reflection. The

inverse relationship between participant's sense of ownership and

introspection requires further exploration. Responses regarding

participants' expression of positive affect were sporadic but the

trend indicated a decline in positive affect (25% before creating

the artwork, 21% after creating the artwork, and 13% after several

weeks of reflection). This negative trend may suggest

Figure 11 At-Risk Student Sample

participant's dissatisfaction with the art product or might refer to a

disconnection between student's intention and the final art

product created. For example refer to Figure 11, *"The emotions are happy and kind of*

depressing and weird. I don't know. I see some of the most beautiful girls. I see my idol, looking

so focused. I see words indicating my fearfulness of time. I don't know. Probably worried,

anxious, anticipating forward progress. I don't know anything about me, still not sure. Still

trying to figure out what I want or how I'm going to get it. It's kind of shows where my head is

at. So, I guess it means something. Unsure, unknowing of anything." This disconnection may

mirror, on some level, their academic experiences or frustrations. Thirteen percent of emotional

content responses included some form of fantasy or future projection and overall participant

responses accounted for 29% fantasy and future projection. Half of participant responses were

concrete descriptors or identifiers. A negligible percentage included symbolic language. Unlike

the other academic tracks, participants in the At-Risk Track included responses of juxtaposing, contradictory or changing affect (29%). These juxtaposing or contradictory responses may indicate the vacillation of emotional energy At-Risk participants associate with school which further complicates their educational experiences.

Comparison of Quantitative and Qualitative Results

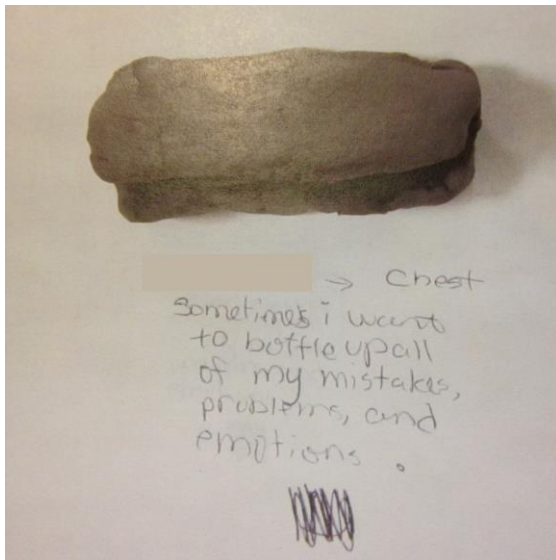For participants in the Honors Track experimental group, statistically significant reduction in the BASC-2 scores for Inattention/Hyperactivity were noted when compared to the control group. These participants also reported a high percentage of positive affect (79%) when reflecting on their art piece. Not only did art therapy seem to increase or at least enable them to express positive affect, Honors Track participants were also notably ventilating negative affect (55%) when reflecting on their artistic creation. Honors Track students who enter high school with stronger academic background, seemed to acclimate fairly well to the high school environment, and understood the multiple levels of meaning and symbolism created in art therapy sessions. In their responses, Honors Track participants were able to use both concrete descriptors (31%) and symbolic language/metaphors (21%) to represent complex emotions, perspectives and thoughts (for example, see Figure 12). One participant reported, "The piece I chose is my clay chest. It shows I have things/emotions I hide from the world. Sometimes things

Figure 12. Honor Track Participant Artwork.

I even hide from myself." The student reflected on his tendency to lock away feelings and emotions because that feels safe. Despite reporting an initial surge of energy as he worked on the piece and interacted with his peers, the participant reported feeling "sluggish and depressed" describing that, "I put all my energy into the artwork and relieved myself of all my cares and stress." For this participant the clay sculpture of a chest meant "a safe place to hide things (a hideout) for my emotions/ thoughts/ feelings." This awareness drained the student emotionally but provided some insight. He stated, "It is a place where I can put all my thoughts behind me." For participants in the Honors Track the ability to create symbolic imagery and to think about emotional content in an abstract fashion seemed to increase participant insight.

Average Track participants reported significant statistical differences on Personal Adjustment and Self-Esteem; art therapy may have positively influenced levels of adjustment and self-expression. Participant reflections indicated a high percentage (80%) of positive affect associated with the artistic product and may have increased participants' levels of self-acceptance, increased ego strength, and aided in identity formation. One participant reported, "…I felt the anger inside of me building due to the fact that I couldn't let it out and had to hold it in." After completing the art piece the same participant reported, "…I felt relieve[d] because

Figure 13. Average Track Participant Artwork.

I was able to reflect my emotions into an art pi[e]ce and was able to let out some of my anger"

(referring to Figure 13). Although the ventilation of feelings for Average Track participants was fairly low (16%), as was the use of symbolic language/metaphor (16%) and a sense of ownership (32%), the use of concrete descriptors (72%) seemed to help participants reflect and make meaning during some of the art therapy sessions.
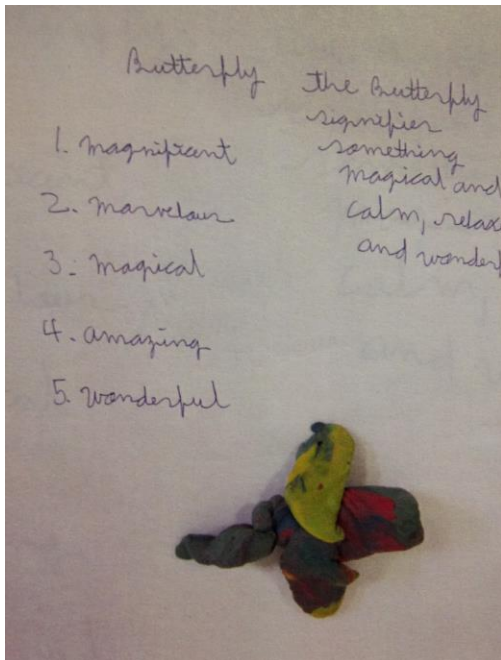

Figure 14. At Risk Track Participant Artwork.

Despite the lack of statistical significance of mean changes on BASC-2 variables for At-Risk Track participants, qualitative responses represented general feelings of uncertainty as indicated by contradictory or changing affect. One particular At-Risk Track participant reported, "I was stressed and worried." "After the artwork, I was calm and relaxed." This particular participant reflected on a clay sculpture he created of a butterfly, stating, "The butterfly represents me being relaxed and calm." After the initial completion of the sculpture the participant wrote five adjectives that described the butterfly: magnificent, marvelous, magical, amazing, wonderful. The tactile manipulation of the clay may have also relieved some of the stress initially reported by the participant. Although At-Risk Track participants reported a greater sense of ownership (42%) when compared to Honors Track (24%) or Average Track (32%) participants, there was greater variability in their responses, notably, change in affect (29%), fantasy or future projection (29%) and cathartic release (29%). The use of symbolic language/metaphor was remarkably low (8%) for At-Risk Track participants. Perhaps participant reflections highlighted a phenomenon

not captured by the BASC-2 Self-Report: a shifting of perspectives or skewed perceptions of At-Risk Track participants. Figure 14 is a sculpture created by an At Risk Track participant who indicated that, "the butterfly signifies something magical and calm, relaxed and wonderful." Yet, despite these concrete descriptors the participant was unable to formulate a metaphor which was meaningful to his own experience besides stating that "the butterfly represents me being relaxed and calm." Participant responses seemed to be alluding to some transformation, at least on an intuitive level, but it remained unclear how much meaning they were attributing to the imagery created.

Limitations

As with any study, there were certain threats to internal and external validity that could not be controlled. A general limitation of this study did not account for the level of exposure to art and/or art classes on the elementary school level for the incoming freshman. While some participants came from schools with art programs, most participants entered high school with no exposure to art and/or art classes. This was of notable importance because discomfort with the materials was noted with some participants in the experimental groups, particularly those in the At-Risk Track. This phenomenon seemed to diminish over the course of the study; participants in the experimental groups became more comfortable with the materials as well as the structure of the art therapy sessions.

As a condition of the setting, participants were in fairly close proximity to each other when completing the BASC-2 questioners and may have talked about some of the questions; this may have inadvertently contaminated some of the responses. The same phenomenon occurred during the art therapy sessions; participants in the experimental group also created artwork and

responded to 5-open ended prompts in close proximity to each other and may have borrowed or

adapted imagery from their peers. It is reasonable to state that a student's artwork and responses

to the questions may have been influenced by their peers.

Another possible limitation to the study involved human error. The BASC-2 self-report

questionnaire is comprised of 176 questions and the responses were imputed into BASC-2 Assist

Plus, a computer program utilized to compute and track participant responses. Participant

responses, particularly At-Risk Track participant responses, may have been influenced by

reading fatigue as they completed the lengthy BASC-2 questionnaire. Errors due to inaccurate

reading are also a possibility. All pre-intervention questionnaires were entered and tracked by

the researcher while the post intervention responses were entered by graduate level art therapy

interns and supervised and verified by the researcher. Although several measures were taken to

ensure accurate accounting of participant responses, it is possible that some responses may have

been recorded incorrectly.

Finally, it must be stated, that several students in the study were involved in a number of

school based clubs or afterschool programs. Some of these programs may have exposed them to

artistic expression through direct instruction and/or experiential art making opportunities. Others

participants may have been exposed to therapeutic services specific individual mental health

needs. Some therapeutic services may have address identity, self-esteem, and/or techniques to

coping with substance abuse or negative influences. These activities and/or therapeutic services

may have influenced participant responses. Although it was rarely the case, some students in the

study displayed exceptional artistic ability, great insight and a remarkable self-awareness. While

none of the students in the study had ever received art therapy services in the past, some of them

have received other forms of mental health services.

Strengths

The study's strengths included a large sample size which was representative of the

population in the South Bronx. In addition, the academic tracks served to group students within

clear developmental clusters. The academically matched control group provided a comparative

group from which to assess the intervention. The BASC-2 measures numerous aspects of

behavior and personality. As a diagnostic tool, it served as an accurate and reliable assessment

that was relatively simple to understand. The study evaluated participants as they entered high

school, a time of adjustment and growth, providing valuable information into the needs of this

population. Additionally, the incorporation of open ended questions provided participant

reflections into their art therapy experience.

Implications

The purpose of the study was to determine if significant differences could be identified

for academically tracked high school freshman receiving art therapy services (experimental

group) compared with those participants who did not receive art therapy services (control group).

It is particularly important for young adults from impoverished communities to receive such

support as they face seemingly overwhelming obstacles. According to several scholars (for

example see, Akee et al., 2010; Gennetian & Miller, 2000; Harding, 2003; Huston et al., 2003;

Kling et al., 2007; and Sampson et al., 2002) the contributing consequence of family poverty,

and to a lesser degree, disadvantaged neighborhoods on the mental, emotional and behavioral

health of children are well documented. Yoshikawa, Aber & Beardslee (2012) maintained that,

this causal effect provides a strong rationale for prevention based on poverty as a risk factor (p. 280). Art therapy, as well as other expressive therapies, may be helpful in addressing some of the risk factors associated with impoverished communities.

In the context of art therapy, the research findings do not challenge any standing beliefs. There is ample support on either side of the theoretical camps to debate or dispute any of the findings. Part of the intrigue of art therapy is the potential to explore the interaction of creativity and artistic expression in the human experience. Thus, the results from the study conducted have both clinical and educational merit. From a clinical standpoint, children's drawings divulge internal information, which allows the clinician intimate access into the child's perceptions of themselves. With this information, clinicians and educators can begin their work in meeting the child's social-emotional needs. From an educational standpoint, art therapists can begin to identify students whose artwork raises some concerns and encourage positive coping skills.

Some experts, like Nicolopoulou (2010), believed that the lack of creative outlets for students is one of the factors contributing to a rise in anger and aggression in young children, which can be reflected in the increase and often severe behavioral problems evidenced in schools. Increased academic demands may contribute to high levels of frustration, stress and anger, potentially intensifying maladaptive behavior and increasing the number of psychiatric disturbances and hospitalizations among children today. According to Miller and Almon (2009), it is important that educators promote physical and emotional health and not exacerbate illness. For educators, it is imperative to highlight that child-initiated play, when combined with thoughtful and focused learning, leads to lifelong benefits that are not attainable though didactic drill, standardized tests, or scripted teaching. Artistic expression when directed by an art

therapist can provide individuals with the support needed to navigate the unpredictable waters of

adolescence. If the developmental needs of students are left unattended, emotional, academic

and psychological progress will inevitably hinder growth.

References

Akee, R. K. Q., Copeland, W., Keeler, G., Angold, A., & Costello, E. J. (2010). Parents' incomes

and children's outcomes: A quasi-experiment using transfer payments from casino

profits. American Economic Journal: Applied Economics, 2, 86 –115.

doi:10.1257/app.2.1.86

Anvari, S.H., Trainor, L.J., Woodside, J., & Levy, B.A. (2002). Relations among musical skills,

phonological processing and early reading ability in pre-school children. *Journal of*

Experimental Child Psychology, 83, 111–130.

Arcari, P. M. (1997). Efficacy of a workplace smoking cessation program: Mindfulness

meditation vs. cognitive-behavioral interventions. Dissertation Abstracts International:

Section B: The Sciences & Engineering, 57(10-B), 6174.

Ashiabi, G. (2007). Play in the preschool classroom: Its socioemotional significance and the

teacher's role in play. *Early Childhood Education Journal, 35*, 199-207. doi:

10.1007/s10643-007-0165-8

Attar, B. K., Guerra, N. G., and Tolan, P. H. (1994). Neighborhood disadvantage, stressful life

events, and adjustment in urban elementary-school children. Journal of Clinical Child

Psychology, 23, 391-400.

Bancroft, K. (2010). Implementing the mandate: the limitations of benchmark tests. Educational

Assessment, Evaluation and Accountability, 22(1), 53-72. Retrieved August 20, 2010,

from ProQuest Education Journals. (Document ID: 1977733791).

Baker, F., & Jones, C. (2006). The effect of music therapy services on classroom behaviours of

newly arrived refugee students in Australia—a pilot study. *Emotional & Behavioural*

Difficulties, 11, 249-260. doi: 10.1080/13632750601022170

Balgaonkar, A. (2010). Effect of dance/motor therapy on the cognitive development of children.

International Journal of Arts and Science, 3(11), 54-72.

Beck, A.T. (1967). *Depression: Clinical, experimental, and theoretical aspects.* New York:

Hoeber.

Beck. A.T. (1976). *Cognitive therapy and the emotional disorders.* New York: International

Universities Press.

Beck, A. T., Rush, J., Shaw, B. F., & Emory, G. (1987). *Cognitive theory of depression.* New

York: Guilford Press.

Bell, C. C. (2001). Cultivating resiliency in youth. *Journal of Adolescent Health, 29*, 375-381.

Bell, C. E., & Robbins, S. (2007). Effects of art production on negative mood: A randomized,

controlled trial. *Art Therapy: Journal of the American Art Therapy Association, 24*(2),

71-75.

Benson, H. (with Klipper, M.Z.) (1975). *The relaxation response.* New York, NY: William

Morrow.

Benton, S. A., Robertson, J. M., Tseng, W. -Ch., Newton, F. B., & Benton, S. L. (2003).

Changes in counseling center client problems across 1 3 years. *Professional*

Psychology, Research and Practice, 34, 66 − 72.

Berglund, C. (1982). The life review process in geriatric art therapy: A pilot study. The

Arts in Psychotherapy, 9(2), 121-130.

Berger, D., Johnson, S., & Stein, R. (2009). Effects of Yoga on Inner-City children's well-being:

A Pilot Study. *Alternative Therapies, 15*(5), 36-42.

Berk, L. (1996). Infants, children and adolescents (2nd ed.). Needham Heights, MA: Simon & Schuster.

Berliner, D. C. (2009). Rational response to high-stakes testing and the special case of narrowing the curriculum. Paper presented at the International Conference on Redesigning Pedagogy, National Institute of Education, Nan yang Technological University, June 1– 13, Singapore.

Boothby, D., & Robbins, S. (2011). The effects of music listening and art production on negative mood: A randomized, controlled trial. *The Arts in Psychotherapy, 38*(3), 204-208.

Boris, R. (2001). The Root of Dance Therapy: A consideration of movement, dancing, and verbalization vis-à-vis dance/movement therapy. *Psychoanalytic Inquiry*, 21:356-367.

Broom, R. (2000). Assessing violence risk among youth. *Journal of Clinical Psychology, 56,* 1263-1288.

Branden, N. (1994). *Six pillars of self-esteem*. New York: Bantam.

Brine, D. T., & Daigneault, S. D. (1998). The use of play therapy with adolescents in high school. *International Journal of Play Therapy. 7*, 25-47.

Bridgeland, J., Dilulio, J., & Morison, K. (2006). *The silent epidemic: Perspectives of high school dropouts.* (A report by Civic Enterprises in association with Peter D. Hart Research Associates from the Bill & Melinda Foundation) Retrieved from *www.ignitelearning.com/pdf/TheSilentEpidemic3-06FINAL.pdf*

Brim, H. (2010). Darkening the ovals of education. *The Clearing House*, 83(5), 153-157. Retrieved August 20, 2010, from Research Library. (Document ID: 2112784441).

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in

    psychological well-being. *Journal of Personality & Social Psychology, 84*(4), 822-848.

Broecher, J. (2012). Children coping with surgery through drawings: A case study from a

    parenting class. *Art Therapy: Journal of the American Art Therapy Association, 29*(1),

    38-43.

Bush, J. (1997). *The Handbook of School Art Therapy*. Springfield, IL: Charles C. Thomas

    Publisher, Ltd.

Carey, T. & Cardio, J. (2012). The minimum grading controversy: Results of a qualitative study

    of seven years of grading data from an urban high school. *Educational Researcher, 41*(6),

    201-208. doi:10.3102/0013189X124453309

Carlini-Cotrim, B., & de Carvalho, V. A. (1993). Extracurricular activities: Are they an effective

    strategy against drug consumption? *Journal of Drug Education, 23* (1), 97-104.

Chapman, C. (2009, December 12). State's failure to pay forces program cuts. *Morris Daily

    Herald*. Retrieved from http://www.morrisdailyherald.com

Chauhan, V. (2004). Drama techniques for teaching English. The Internet TESL Journal, 10(10).

Cheek, J.M., & Smith, L.R. (1999). Music training and mathematics achievement. *Adolescence,

    34,* 759–761.

Cheong-Clinch, C. (2009). Music for engaging young people in education. *Youth Studies

    Australia, 28*, 50-57.

Chong, H. & Kim, S. (2010). Education-oriented music therapy as an after-school program for

    students with emotional and behavioral problems. *The Arts in Psychotherapy, 37*(3), 190-

    196.

Christenfeld, N., & Creager, B. (1996). Anxiety, alcohol, aphasia, and ums. Journal of
      Personality & Social Psychology, 70(3), 451-460.

Compas, B. E., Banez, G. A., Malcarne, V., and Worsham, N. (1991). Perceived control and
      coping with stress: A developmental perspective. *Journal of Social Issues*, 47(4), 23-34.

Cockle, S. (1994). Healing through art: The self-portrait technique. *International Journal of Play*
      Therapy, 3(1), 37-55.

Cole, D., Sugioka, H., & Yamagata-Lynch. (1999). Supportive Classroom Environments for
      Creativity in Higher Education. *Journal of Creative Behavior, 33*(4), 277-293.
      doi: 10.1002/j.2162-6057.1999.tb01407.x

Cooley, L. (2009). *The Power of Groups: Solution-Focused Group*. Thousand Oaks, California:
      Corwin, A Sage Company.

Coseo, A. (1997). Developing cultural awareness for creative arts therapists. *The Arts in*
      Psychotherapy, 24(2), 145-157.

Cronin, P. (1994). Ways of working: Art therapy with women in Holloway prison. In M.
      Liebmann (Ed.), Art therapy with offenders (pp. 102-120). Philadelphia: Jessica
      Kingsley.

Cuban, L. (1989). The 'At-Risk' label and the problem with urban school reform. *The Phi Delta*
      Kappan. 70(10), 780-784, 799-801.

Curry, N.A., & and Kasser, T. (2005). Can coloring mandalas reduce anxiety? *Art Therapy:*
      Journal of the American Art Therapy Association, 22(2), 81-85.
      doi:10.1080.07421656.2005.10129441

Dalley, T. (1984). *Art as Therapy.* New York, NY: Routledge

Dalley, T., Rifkind, G., & Terry, K. (1993). *Three voices of art therapy: Image, client, therapist*.

    London: Routledge.

Darling-Hammond, L. (2009) Recognizing and enhancing teacher effectiveness. *The*

    International Journal of Education and Psychological Assessment, 3, 1-24.

Darrow, A.-A. (2006, Fall 2006). Teaching students with behavior problems. *General Music*

    Today, pp. 35-37.

Darrow, A.-A. (2008a). Adaptations in the classroom. *General Music Today, 21*, 32-34.

Darrow, A.-A. (2008b). Music and literacy. *General Music Today, 21*, 32-34.

Davis, S. F., & Ault, R. E. (1980). The art therapist: A new breed of teacher. *Action in Teacher*

    Education, 2, 55-56.

De Petrillo, L., Winner, E. (2005). Does art improve mood? A test of a key assumption

    underlying art therapy. *Art Therapy: Journal of the American Art Therapy Association,*

    22(4), 205-212.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why " of goal pursuits: Human needs and

    the self-determination of behavior. *Psychological Inquiry*, 11, 227 −268.

Dempsey, M., Overstreet, S., & Moely, B. (2000). "Approach" and "avoidance" coping and

    PTSD symptoms in inner-city youth. *Current Psychology, 19*(1), 28-46.

Dobb, C. (1999). *Racism: An American Cauldron.* New York, NY: Longman.

Dogan, T. (2010). The effects of psychodrama on young adults' attachment styles. *The Arts in*

    Psychotherapy, 37, 112-119. doi:10.1016/j.aip.2010.02.001

Dolnick, S. (2010, March 14). The Obesity-Hunger Paradox. *The New York Times*, p. MB4 New

    York/Region edition.

Dubois, D. L., Felner, R.D., Brand, R.D., Adan, A. M., & Evens, E. G. (1992). A prospective

    study of life stress, social support, and adaptation in early adolescence. *Child*

    Development, 53, 542-557.

Eckersley, R., & Dear, K. (2002). Cultural correlates of youth suicide. *Social Science and*

    Medicine , 55, 1891−1904.

Egge, D. L., Marks, L. & McEvers, D. M. (1987). Puppets and adolescents: A group guidance

    workshop approach. *Elementary School Guidance & Counseling, 21*(3), 183-192.

Essex, M., Frostig, K., & Hertz, J. (1996a). In the service of children: Art and expressive

    therapies in public schools. *Art Therapy,* 13, 181-190.

Eysenck, H.J., & Eysenck, M.W. (1985). *Personality and individual differences: A natural*

    science approach. New York: Plenum.

Felitti, V., & Anda, R. (2009). *The Hidden Epidemic: The impact of early life trauma on health*

    and disease. Unpublished manuscript, ACE Study, Cambridge University Press.

    Retrieved from

    http://acestudy.org/yahoo_site_admin/assets/docs/LaniusVermetten_FINAL_8-26-

    09.12892303.pdf

Flinton, C. A. (1998). The effects of meditation techniques on anxiety and locus of control in

    juvenile delinquents. Dissertation Abstracts International: Section B: The Sciences &

    Engineering, 59(2-B), 0871.

Franklin, M.S., Moore, K. S., Yip, C., Jonides, J., Rattray, K., Moher, J. (2008). The effects of

    musical training on verbal memory. *Psychology of Music, 36(3)*, 353-365.

Freedberg, D., & Gallese, V. (2007). Motion, emotion, and empathy in esthetic experience.

Trends in Cognitive Science, 11(5), 197–203.

Freilich, R., & Shechtman, Z. (2010). The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities. *The Arts in Psychotherapy, 37*, 97-105. doi: 10.1016/j.aip.2010.02.003

Freedberg, D., & Gallese, V. (2007). Motion, emotion and empathy in esthetic experience. *Trends in Cognitive Sciences*, *11*(5), 197-203.

Froeschle, J. G., & Riney, M. (2008). Using Adlerian art therapy to prevent social aggression among middle school students. *Journal of Individual Psychology, 64*, 416-431.

Gallese, V., Keysers, C., & Rizzolatti, G. (2004). A unifying view of the basis of social cognition. *Trends in Cognitive Science, 8*(9), 396–403.

Gantt, L., & Tabone, C. (1998). *The Formal Elements Art Therapy Scale: The rating manual*. Morgantown, WV: Gargoyle Press.

Gatta, M., Lara, D., Lara, D., Andrea, S., Paola., T., Giovanni, C., Rosaria, S., Carolina, B., & PierAntonio, B. (2010). Analytical psychodrama with adolescents suffering from psycho-behavioral disorder: Short-term effects on psychiatric symptoms. *The Arts in Psychotherapy,* 37, 240-247. doi:10.1016/j.aip.2010.04.010

Garbarino, J. 1997. Educating children in a socially toxic environment. Educational Leadership, 54, 12-16.

Garbarino, J., Kostelny, K., & DuBrow, N. (1991). What children can tell about living in danger. *American Psychologist, 46,* 376-382.

Gardner, H. (1999). The disciplined mind. New York: Simon & Schuster.

Garmezy, N. (1987). Stress, competence, and development: Continuities in the study of

schizophrenic adults, children vulnerable to psychopathology, and the search for stress-resistant children. *American Journal of Orthopsychiatry, 57,* 159-174.

Gennetian, L., & Miller, C. (2000).Reforming welfare and rewarding work: Final report on the Minnesota Family Investment Program: Vol. 2. Effects on children. New York, NY: MDRC. Retrieved from http:// www.mdrc.org/publications/206/full.pdf

Gersie, A. (1995). Arts therapies practice in inner-city slums: Beyond the installation of hope. *The Arts in Psychotherapy 22*(3), 2007-215.

Gibbons, K. (2010). Circle Justice: A creative arts approach to conflict resolution in the classroom. *Art Therapy: Journal of the American Art Therapy Association, 27*(2), 84–89. doi:10.1080/07421656.2010.10129716

Gladding, S. T. (2011). *The creative arts in counseling* (4th ed.). Alexandria, VA: American Counseling Association.

Gold, C., Voracek, M., & Wigman, T. (2004). Effects of music therapy for children and adolescents with psychopathology: a meta-analysis. *Journal of Child Psychology and Psychiatry,* 45(6), 1054-1063.

Gold, C., Wigram, T., & Voracek, M. "Effectiveness of Music Therapy for Children and Adolescents with Psychopathology: A Quasi-Experimental Study." *Psychotherapy Research* 17.3 (2007): 289-96. *ProQuest Central.* Web. 23 Apr. 2012.

Gold. E., Smith, A., Hopper. I., Heme. D., Tansey. G., & Hulland. C. (2010). Mindfulness-based stress reduction (MBSR) for primary school teachers. Journal of Child and Family Studies. 19. 1114-189.

Goodwin, R. D. (2003). The prevalence of panic attacks in the United States: 1980 to

1995. *Journal of Clinical Epidemiology*, 56, 914 − 916.

Gottfredson, D. C., Gerstenblith, S. A., Soule, D. A., Womer, S. C., & Lu, S. (2004). Do after

school programs reduce delinquency? *Preventative Science, 5*(4), 253-266.

Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., Gipson, P. Y., Campbell, A. J.,

Krochock, K., Westerholm, R. I. (2006). Stressors and child and adolescent

psychopathology: Evidence of moderating and mediating effects. *Clinical Psychology*

Review, 26, 257–283. doi:10.1016/j.cpr.2005.06.011

Gray, P. (2011). The decline of play and the rise of psychopathology in children and adolescents.

American Journal of Play, 3(4), 443-463.

Greenberg, M. T., Domitrovich, C., & Bumbarger, B. (2001). The prevention of mental disorders

in school-aged children: current state of the field. Prevention & Treatment, 4,1–62

Gresham, F. M., & Elliott, S. N. (1990). *The social skills rating system*. Circle Pines, MN:

American Guidance Service

Grossman, F. G. (1981). Creativity as a means of coping with anxiety. Arts in Psychotherapy,

8(3/4), 185-192.

Guest, K. C., & Biasini, F. J. (2001). Middle childhood, poverty, and adjustment: Does social

support have an impact? *Psychology in the Schools, 38*, 549-560.

Haens, M. (2007) "Face-to-Face" with addiction: The spontaneous production of self-portraits in

art therapy. *Art Therapy: Journal of the American Art Therapy Association,* 24(1), 33-36.

Hanauer, D. (2004). *Poetry and the meaning of life: reading and writing poetry in language arts.*

Toronto: Pippin Publishing Corporation.

Hardiman, M., Magsamen,S., McKhann, G., & Eilber, J., (2009). Neuroeducation: Learning,

      Arts, and the Brain: Findings and Challenges for Educators and Researcher from the 2009

      John Hopkins University Summit. New York: Dana Press.

Harding, D. J. (2003). Counterfactual models of neighborhood effects: The effect of

      neighborhood poverty on dropping out and teenage pregnancy. American Journal of

      Sociology, 109, 676 –719. doi:10.1086/379217

Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In

      Baumeister, R. (ed.), *Self-Esteem: The Puzzle of Low Self-Regard.* Plenum, New York.

Hartz, L., & Thick, L. (2005): Art Therapy Strategies to Raise Self-Esteem in Female Juvenile

      Offenders: A Comparison of Art Psychotherapy and Art as Therapy Approaches, *Art*

      Therapy: Journal of the American Art Therapy Association, *22*(2), 70-80

Heath, S. B., Soep, E., & Roach, A. (1998). Living the arts through language and learning: A

      report on community-based youth organizations [Monograph]. *Americans for the Arts,*

      2(14), 1-11.

Helwick, C. (2011). Dendritic Spine Respond to Stress. *Medscape Medical News.* Retrieved

      from http://www.medscape.com/viewarticle/745317.

Henderson, S. M. (1983). Effects of music therapy program upon awareness of mood in music,

      group cohesion, and self-esteem among hospitalized adolescent patients. *Journal of*

      Music Therapy, 20(1), 14–20.

Hendricks, C. B. (2001). *A study of the use of music therapy techniques in a group for the*

      treatment of adolescent depression (Doctoral dissertation). Retrieved from ProQuest

      Dissertations and Theses database.

Henley, D. (2002). *Clayworks in art therapy: Playing the sacred circle.* Philadelphia, PA: Jessica
    Kingsley.

Heron, H., Hoyert, D., Xu, J., Scott, C., Tejada-Vera, B. (2008). Death: preliminary data for
    2006. Hyattsville, MD: National Center for Health Statistics.

Hetland, L. (2000a). Learning to make music enhances spatial reasoning. *Journal of Aesthetic
    Education, 34(3–4),* 179–238.

Ho, Y.-C., Cheung, M.-C., & Chan, A.S. (2003). Music training improves verbal but not visual
    memory: Cross-sectional and longitudinal explorations in children. *Neuropsychology, 17*,
    439–450.

Hoffman, S., Kantner, Colbert, C., & Sims, W. (1991). Nurturing the expressive arts. *Childhood
    Education, 68*(1), 22-26.

Howews, C., Unger, O. A., & Matheson, C. C. (1992). *The collaborative construction of pretend.*
    Albany, NY: State University of New York Press.

Huston, A. C., Miller, C., Richburg-Hayes, L., Duncan, G. J., Eldred, C. A., Weisner, T. S.,
    Lowe, E, McLoyd, V., Crosby, D., Ripke, M., Redcross, C. (2003). New hope for
    families and children: Five-year results of a program to reduce poverty and reform
    welfare. New York, NY: MDRC. Retrieved from
    http://www.mdrc.org/publications/345/full.pdf

Huesmann, L. R., Guerra, N. G., Miller, L., & Zelli, A. (1992). The role of social norms in the
    development of aggressive behavior. In A. Fraczek & H. Zumkley (Eds.), *Socialization
    and aggression* (pp. 139-152). New York: Springer-Verlag.

Hurwitz, I., Wolff, P.H., Bortnick, B.D., & Kokas, K. (1975). Nonmusical effects of the Kodaly music curriculum in primary grade children. *Journal of Learning Disabilities, 8*, 167–174.

Institute of Medicine. (2009). Preventing mental, emotional, and behavioral disorders among young people: progress and possibilities. Washington, DC: The National Academies Press.

Irwin, E., Rubin, J., Shapiro, M. (1975). Art and Drama: Partners in therapy. *American Journal of Psychotherapy*, Jan1975, Vol. 29 Issue 1, p. 107-116.

Isis, P., Bush, J., Siegel, C., & Ventura, Y. (2010). Empowering students through creativity: Art therapy in Miami-Dade County Public Schools. *Art Therapy: Journal of the American Art Therapy Association, 27(2),* 56-61.

Iwamoto, D., Creswell, J., & Caldwell, L. (2007). Feeling the beat: The meaning of rap music for ethnically diverse Midwestern college students-A phenomenological study. *Adolescence, 42*(166), 337-351.

Jeong, Y., Hong, S., Lee, M., Park, M., Kim, Y., & Suh, C. (2005). Dance movement therapy improves emotional responses and modulates neurohormones in adolescents with mild depression. *International Journal of Neuroscience 115*, 1711-1720. doi: 10.1080/00207450590958574

Jackson, N. A. (2003). A survey of music therapy methods and their role in the treatment of early elementary school children with ADHD, *Journal of Music Therapy* **40** (4) (2003), pp. 302–323.

Jargowsky, P. A. (1994). Ghetto poverty among blacks in the 1980s. J. Policy Analysis &

Manage.13:288–310

Jargowsky, P. A. (1997). Poverty and Place: Ghettos, Barrios, and the American City. New York: Russell Sage Found.

Johnson, C. M., & Memmott, J. E. (2006). Examination of relationships between participation in school music programs of differing quality and standardized test results. *Journal of Research in Music Education, 54*, 293-307.

Jones, D. (2005, February 24-March 2). 47% of High School Students Drop Out. *The New York Amsterdam News,* p.5.

Kapitan, L. (2010). *Introduction to art therapy research*. New York: Routledge.

Kaplan, F. (2006). [Ed.] Art Therapy and Social Action. London: Jessica Kingsley Publishers.

Karataş, Z. & Cökçakan, Z. (2009). A comparative investigation of the effects of cognitive-behavioral group practices and psychodrama on adolescent aggression. *Educational Science: Theory and Practice,* 9(3), 1441-1452.

Kasser, T. (2003). *The high price of materialism*. Cambridge, MA: MIT Press.

Kasser, T., & Ryan, R. M. (1996). Further examining the American dream: Differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280−287.

Kessler, R., Berglund, P., Demler, O., Jin, R., Merikangas, K., & Walters, E. (2005). Lifetime

Prevalence and Age-of-Onset Distributions of DSM-IV Disorders in the National

Comorbidity Survey Replication. *Archives of General Psychiatry, 62*(6), 593-602.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., et al.

(1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the

United States: Results from the National Comorbidity Study. Archives of General

Psychiatry, 51, 8-19.

Keve, K. B. (1995). Art therapy in the public schools: Primary prevention for children at risk.

Dissertation Abstracts International: Section B: The Sciences & Engineering, 55(8-B),

3566.

Kimport, E., & Robbins, S. (2012) Efficacy of creative clay work for reducing negative mood: A

randomized controlled trial. *Art Therapy: Journal of the American Art Therapy

Association,* 29(2), 74-79.

Klerman, G. L., & Weissman, M. M. (1989). Increasing rates of depression. *Journal of the

American Medical Association*, *261*, 2229 − 2235.

Kling, J., Ludwig, J., & Katz, L. (2005). Neighborhood effects on crime for female and male

youth. *Quarterly Journal of Economics, 120*, 87–130.

Klorer, P. (2000). *Expressive therapy with troubled children.* Lanhan, MD: Jason Aronson.

Knack, J., Jensen-Campbell, L. Baum, A. (2011). Worse than sticks and stones? Bullying is

associated with altered HPA axis functioning and poor health. *Brain and Cognition,

77*(2), 183-190.

Kottman, T., Strother, J., & Deniger, M. M. (*1987*). A school-based group activity therapy

intervention with at-risk high school students as it relates to their moral reasoning. *Journal of Humanistic Education and Development*, 25, *181*-186.

Kozlowska, K., & Hanney, L. (2001). An art therapy group for children traumatized by parental violence and separation. *Clinical Child Psychology & Psychiatry*, 6(1), 49-78.

Lamb, S., & Gregory, A. (1993). The relationship between music and reading in beginning readers. *Educational Psychology, 13*(1), 19-27.

Landreth, G. L., Ray, D. C., & Bratton, S. C. (2009). Play therapy in elementary schools. *Psychology in the Schools, 46*, 281-289.

Lee, S. (2013). "Flow" in Art Therapy: Empowering immigrant children with adjustment difficulties. *Art Therapy: Journal of the American Art Therapy Association, 30(*2), 56-63, doi:10.1080/07421656.2013.786978

Lemberger, M., & Milliren, A. (2008). Individual psychology and the schools. *The Journal of Individual Psychology, 64*(4), 383-385.

Lemberger, M., & Nash, E. (2008) School counselors and the influence of Adler: Individual psychology since the advent of ASCA National Model. . *The Journal of Individual Psychology, 64*(4), 386-402.

Levitan, M. (2005). *Out of School, Out of Work…Out of Luck? New York City's Disconnected Youth*. New York: Community Service Society. Retrieved from http://betterfutures.fcny.org/betterfutures/out_of_school_out_of_luck.pdf.

Loesl, S. (2010). Introduction to the special issue on art therapy in the schools: Art therapy + schools + students = ? *Art Therapy: Journal of the American Art Therapy Association*, *27*(2), 54–56. doi:10.1080/07421656.2010.10129718

Loewen, J (1995). *Lies my teacher told me.* New York, NY: Simon and Schuster Inc.

Lopez, P., Mestre, J., Guil, R., Kremenitzer, J., & Salvovey, P. (2012). The role of knowledge
and skill for managing emotions in adaptation to school: Social behavior and misconduct
in the classroom. *American Educational Research Journal 49*(4), p. 710-742. doi:
10.3102/0002831212443077

Losen, D. & Orfield, G. (2002). Racial inequality in special education. Cambridge, MA: Harvard
Education Press.

Maciejczyk, P., Offenberg, J., Clemente, J., Blaustein, M., Thurston, G.,& Chi Chen, L. (2004)
Ambient pollutant concentrations measured by a mobile laboratory in South Bronx, NY.
Atmospheric Environment, 38, 5283-5294.

Manning, M. A. (2007). Self-concept and self-esteem in adolescents. Retrieved from
http://www.nasponline.org/families/selfconcept.pdf

Manning, M. A., Bear, G. G., & Minke, K. M. (2006). Self-concept and self-esteem. In G. G.
Bear K. M. Minke (Eds.), Children's needs III: Development, prevention, and
intervention (pp. 41–356). Washington, DC: National Association of School
Psychologists.

Mason, M. J., & Chuang, S. (2001). Culturally-based after-school arts programming for low-
income urban children: Adaptive and preventative effects. *Journal of Primary
Prevention, 22*(1), 45-54.

Massey, M. S. (1998). Early childhood violence prevention. *ERIC Digest,* EDO-PS-98-9.
Champaign, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.

Matte, T., Ellis, J., Bedell, J., Selenic, D., Young, C., Dietcher, D. (2007). Obesity in the South

Bronx: A look across generations. New York, NY: New York City Department of Health

and Hygiene. Retrieved from http://www.nyc.gov/html/doh/downloads/pdf/dpho/dpho-

bronx-obesity.pdf

McKnew, D. H., Cytryn, L., & Yahraes, H. (1983). *Why isn't Johnny crying? Coping with

depression in children.* New York: W.W. Norton.

McLoyd, V.C. (1990). The impact of economic hardship on Black families and children:

Psychological distress, parenting, and socioemotional development. *Child Development,

61,* 311-346.

McNiff, S. (2009). Cross-cultural psychotherapy and art. *Art Therapy: Journal of the American

Art Therapy Association, 26*(3), 100-106. (Originally published in 1984)

Milkman, H. B., Wanberg, K., & Robinson, C. (1996). Project self-discovery: Artistic

alternatives for high-risk youth. [Monograph]. *Journal of Community Psychology*, 1-263.

Miller, E. & Almon, J. (2009). *Crisis in the kindergarten: Why children need to play in school.*

College Park, MD: Alliance for Childhood. Retrieved from

http://www.allianceforchildhood.org/sites/allianvceforchildhood.org/files/file/kindergarte

n_report.pdf

Monte, C. (1999). *Beneath the Mask.* Fort Worth, TX: Harcourt Brace College Publishers.

Montello, L., & Coons, E. E.(1998). Effects of active vs. passive group music therapy on

preadolescents with emotional, learning, and behavioral disorders, *Journal of Music

Therapy* 35 (1) (1998), pp. 49–67.

Morrison, G. M., Storino, M. H., Robertson, L. J., Weissglass, T., & Dondero, A. (2000). The

protective function of after-school programming and parent education and support for

students at risk for substance abuse. *Evaluation and Program Planning, 23,* 365-371.

Myers, D. G. (2000).*The American paradox: Spiritual hunger in an age of plenty*. New Haven, CT: Yale University Press.

National Advisory Mental Health Council. (1990). National plan for research on child and adolescent mental disorders (DHHS Publication No. 90-1683). Washington, DC: U.S. Department of Health and Human Services.

National Center for Children in Poverty, Columbia University. (2009).Federal Earned Income Tax Credit (EITC). Retrieved from http://www.nccp.org/profiles/index_27.html

National Research Council & Institute of Medicine. (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities (M. E. O'Connell, T. Boat, & K. E. Warner, Eds.). Washington, DC: National Academies Press.

Nelson, C. (2010). Meeting the needs of urban students: Creative arts therapy in Jersey City Public Schools. *Art Therapy: Journal of the American Art Therapy Association, 27(2)*, 62-68.

Nettles, A. (2009, December 21). Montgomery public schools cut funding to groups that aid at-risk students. *Montgomery Advertiser.* Retrieved from http://www.montgomeryadvertier.com

Nicolopoulou, A. (2010). The alarming disappearance of play from early childhood education. *Human Development, 53*, 1-4.

Nishida, N., & Strobino J. (2005) Art Therapy with a Hemodialysis Patient: A Case Analysis, *Art Therapy: Journal of the American Art Therapy Association, 22(*4), 221-226. doi: 10.1080/07421656.2005.10129517

Noguera, P. (2008). *The trouble with black boys and other reflections on race, equity, and the future of public education.* San Francisco, CA: Wiley & Sons.

Olfson, M., & Marcus, S. C. (2009). National patterns in antidepressant medication treatment. *Archives of General Psychiatry, 66,* 848 − 856.

Olson, C. A. (2008). Can music education help at-risk students? *Teaching Music, 16*, 20-20.

Orr, A. J. (2003). Black-White differences in achievement: The importance of wealth. *Sociology of Education, 76*, 281-304.

Paone, T. R., Packman, J., Maddux, C., & Rothman, T. (2008). A school-based group activity therapy intervention with at-risk high school students as it relates to their moral reasoning. *International Journal of Play Therapy, 17*, 122-137. doi: 10.1037/a0012582

Paquette, K., Rieg, S. (2008). Using music to support the literacy development of young English language learners. *Early Childhood Education Journal, 36*, 227-232. doi: 10.1007/s10643-008-0277-9

Pawlak, R., Magarinos, A. M., Melchor, J., McEwen, B., Strickland, S. (2003). Tissue plasminogen activator in the amygdala is critical for stress-induced anxiety-like behavior. *Nature Neuroscience, 6*(2), 168-174.

Peck, H., Kehle, T., Bray, M., & Theodore, L. (2005). Yoga as an intervention for children with attention problems. *School Psychology Review, 34*(3), 415-424.

Pekrun, R., Goetz, T., Titz, W., Perry, R. (2002) Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. *Educational Psychologist, 37*(2), 91-105.

Peregoy, S., & Boyle, O. (2008). Reading, writing, and learning in ESL. (5th ed.) Boston:

Pearson.

Phinney, J., Cantu, C.L., & Kurtz, D. (1997). Ethnic and American identity as predictors of self-esteem among African American, Latino and White Adolescents. *Journal of Youth and Adolescence 26*(2), 165-185.

Pichardt, C. (2010, September 6). Surviving (Your Child's) Adolescence [Web Blog]. Retrieved from http://www.psychologytoday.com/blog/surviving-your-childs-adolescence/201009/adolescence-and-self-esteem

Ponteri, A. (2001). The effects of group art therapy on depressed mothers and their children. *Art Therapy: Journal of the American Art Therapy Association 18*(3), 148-157.

Prothrow-Stith., & Quaday, ZS. (1995). *Hidden casualties: The relationship between violence and learning.* Washington, DC: National Health & Education Consortium and National Consortium for African American Children.

Pryor, J.H., Hurtado, B., Sáenz, V. B., Santos, J. L., & Korn, W. S. (2007). *The American Freshman: Forty-Year Trends, 1966 – 2006*. Los Angeles: Higher Education Research Institute.

Randick, N., & Dermer, S. (2003) The relationship of School Art Therapy and the American School Counselor National Model. *Art Therapy: Journal of the American Art Therapy Association, 30*(1), 30-35. doi: 10.1080/07421656.2013.757507

Ray, D. C., Henson, R. K., Schottelkorb, A. A., Brown, A. G., & Muro, J. (2008). Effect of short- and long-term play therapy services on teacher–child relationship stress. *Psychology in the Schools, 45*, 994-1009.

Reasoner, R. (2002, February 5). Review of self-esteem research. Retrieved from the National

Association for Self-Esteem website: www.self-esteem-nase.org/research.shtml

Redfering, D. & Bowman, M. (1981). Effects of a meditative-relaxation exercise on non-
attending behaviorally disturbed children. *Journal of Clinical Child Psychology, 10*(2),
126-127.

Restrepo, C. & Zimmerman, R. (2009). *Dissemination Materials and Geographic Information
Systems (GIs) Tutorial Materials* (Final Report for Phase VI) Retrieved from
http://www.icisnyu.org/south_bronx/admin/files/NYUWagnerPhaseVIreport.pdf.

Reynolds, J., Stewart, M., MacDonald, R., & Sischo, L. (2006). Have adolescents become
too ambitious? High school seniors' educational and occupational plans, 1976 to
2000. *Social Problems , 53,* 186 − 206.

Rickson, D.J. (2006). Instructional and improvisational models of music therapy with
adolescents who have attention deficit hyperactivity disorder (ADHD): A comparison of
the effects on motor impulsivity. *Journal of Music Therapy 43*(1), 39–62.

Rickson, D.J. & Watkins,W.G. (2003). Music therapy to promote prosocial behaviors in
aggressive adolescent boys—A pilot study, *Journal of Music Therapy 40*(4), 283–301.

Rieg, S., & Paquette, K. (2009). Using Drama and Movement to enhance English language
learners' literacy development. *Journal of Instructional Psychology,36*(2), 148-154.

Riley, S. (1999). *Contemporary art therapy with adolescents.* Philadelphia, PA: Jessica
Kingsley.

Roberts, B. W., & Helson, R. (1997). Changes in culture, changes in personality: The
influence of individualism in a longitudinal study of women. *Journal of Personality
and Social Psychology*, 72, 641 − 651.

Romano, E., Tremblay, R. E., Vitaro, F., Zoccolillo, M., & Pagani, L. (2001). Prevalence of
psychiatric diagnosis and the role of perceived impairment: findings from an adolescent
community sample. Journal of Child Psychology and Psychiatry, 42, 451–461.

Rones, M., & Hoagwood, K. (2000). School-based mental health services: a research review.
Clinical Child and Family Psychology Review, 3, 223–241

Rosal, M. L., McCulloch-Vislisel, S., & Neece, S. (1997). Keeping students in school: An art
therapy program to benefit ninth-grade students. *Art Therapy, 14*, 30-36.

Rousseau, C., Benoit, M., Gauthier, M. Lacroix, L., Alain, N., Rojas, M., Moran, A. & Bourassa,
D. (2007). Classroom drama therapy program for immigrant and refugee adolescents: A
pilot study. *Clinical Child Psychology and Psychiatry, 12:*451-465. doi:
10.1177/1359104507078477

Salkind, N. (2010). *Statistics for people who think they hate statistics*. (Second Edition)
Thousand Oaks, California: Sage Publications, Inc.

Sandmire, D., Gorham, S., Rankin, N., & Grimm, D. (2012). The influence of art making on
anxiety: A pilot study. *Art Therapy: Journal of the American Art Therapy Association,
29*(2), 68-73.

Sassen, G., Spencer, R.,&Curtin, P. C. (2005). Art from the heart: A relational-cultural approach
to using art therapy in a group for urban middle school girls. *Journal of Creativity in
Mental Health, 1*(2), 67–79. doi:10.1300/J456v01n02 07

Schaverien, J. (1990). The scapegoat and the talisman: Trans-ference in art therapy. In T. Dalley,
C. Case, J. Schaverien, F. Weir, D. Halliday, P. Hall, & D. Waller (Eds.), *Images of art*

therapy: New developments in theory and practice (2nd ed.) (pp.74-108).

London:Tavistock/Routledge.

Schellenberg, E.G. (2004). "Music Lessons Enhance IQ," *Psychological Science* 15 (2004): 511–

514.

Schmais, C. (1985). Healing process in group dance therapy. *American Journal of Dance*

*Therapy. 8,*17-36.

Schonert-Reichi, K., & Lawlor, M. (2010) The effects of mindfulness-based education program

on pre- and early adolescents' well-being and social and emotional competence.

Mindfulness, 1(3), 137-151.

Schuster, M., Elliot, M., Kanouse, D., Wallander, J, Tortolere, S., Ranter, J., Klein, D., Cuccaro,

P., Davies, S., & Banspach, S. (2012). Racial and ethnic disparities among fifth-graders

in three cities. *The New England Journal of Medicine, 367*(8), 735-745.

Scollon, C. N., & Diener, E. (2006). Love, work, and changes in extraversion and neuroticism

over time. *Journal of Personality and Social Psychology, 91*, 1152 −1165.

Seligman, M. E. P. (1990). Why is there so much depression today? The waxing of the

individual and the waning of the commons. In R. E. Ingra m (Ed.), *Contemporary*

psychological approaches to depress ion: Theory, research, and treatment (pp. 1 −9).

New York: Plenum Press.

Semrud-Clikeman, M., Bennet, L., & Guli, L. (2003) Assessment of childhood depression. IN

C.R. Reynolds & R.W. Kamphaus (Eds.), *Handbook of psychological and educational*

assessment of children: Personality, behavior, and context (2nd ed.). New York: Guilford.

Shen, Y.-J. (2006). Play therapy in Texas Schools. *Guidance & Counseling, 21*, 230-235.

Sholt, M., & Gavron, T. (2006). Therapeutic qualities of clay-work in art therapy and

    psychotherapy: A review. *Art Therapy: Journal of the American Art Therapy*

    Association,23(3), 66–72. doi:10.1080/07421656.2006.10129647

Silver, R. (1988). Screening children and adolescents for depression through Draw a Story.

    American Journal of Art Therapy, 26(4), 119–124.

Silver, R. (1989). *Developing cognitive and creative skills through art.* (3rd ed. Rev.). Sarasota,

    FL: Ablin Press Distributors.

Silver, R. (2009). Identifying children and adolescents with depression: Review of the Stimulus

    Drawing Task and Draw A Story Research. *Art Therapy: Journal of the American Art*

    Therapy Association, 26(4), 174-180.

Sisk, R. (2010, September 29). South Bronx is poorest district in nation, U.S. Census Bureau

    finds: 38% live below poverty line. *New York Daily News.* Retrieved from

    http://articles.nydailynews.com/2010-09-29/local/27076750_1_poverty-rate-poverty-line-

    south-bronx

Sobol, B. (1985). Art therapy, behavior modification, and conduct disorder. *American Journal of*

    Art Therapy, 24, 35-43.

Sowislo, J. F., & Orth, U. (2012). Does low self-esteem predict depression and anxiety? A meta-

    analysis of longitudinal studies. *Psychological Bulletin. Advance online publication*. doi:

    10.1037/a0028931

Spelke, E. "(2008). Effects of Music Instruction on Developing Cognitive Systems at the

    Foundations of Math and Science," *Learning, Arts, and the Brain: The Dana Consortium*

    Report 17-49.

Spier, E. (2010). Group art therapy with eight-grade students transitioning to high school. *Art Therapy: Journal of the American Art Therapy Association, 27*(2), 75-83. doi:10.1080/07421656.2010.10129717

Stallings, J. (2010). Collage as a therapeutic modality for reminiscence in patients with dementia. *Art Therapy: Journal of the American Art Therapy Association, 27*(3), 136-140.

Stoiber, K. C. (2004). Functional assessment and intervention system: Improving school behavior. *FAIS*.

Strauss, C.C. (1990). Anxiety disorders of childhood and adolescents. *School Psychology Review, 19*, 142-157.

Stueck, M. & Gloeckner, N. (2003). Yoga for children in the mirror of the science: working spectrum and practice fields of the training of relaxation with elements of yoga for children. *Early Children Development and Care, 175*(4), 371-377.

Suglia, S., Staudenmayer, J., Cohen, S., Wright, R. (2010). Posttraumatic stress symptoms related to community violence and children's diurnal cortisol response in an urban community-dwelling sample. *International Journal of Behavioral Medicine, 17*, 43-50.

Sutherland, J., Waldmam, G., & Collins, C. (2010). Art Therapy Connection: Encouraging troubled youth to stay in school and succeed. *Art Therapy: Journal of the American Art Therapy Association, 27*(2), 69-74. doi:10.1080/07421656.2010.10129720

Swindle, R., Heller, K., Pescosolido, B., & Kikuzaw A, S. (2000). Responses to nervous breakdowns in America over a 40-year period . *American Psychologist, 55, 740− 749.*

Tao, R., Calley, C., Hart, J., Mayes, T., Nakonezny, P., Lu, H., Kennard, B., Tamminga, C., & Emslie, G. (2012). Brain activity in adolescent Major Depressive Disorder before and

after Fluoxetine Treatment. *The American Journal of Psychiatry, 169,* 381-388. doi: 10.1176/appi.ajp.2011.11040615

Tepper, B. (2007). *Efficacy of Creative Arts Therapies Practice in an Urban School District.* Manuscript in preparation.

Thurston, G., Spira-Cohen, A., & Chen, L. (2007). *South Bronx environmental Health and Policy Study* (Final Report for NYU School of Medicine). Retrieved from *graphics8.nytimes.com/packages/pdf/nyregion/20081002_SOM.pdf*

Treadon, C. B., Rosal, M., & Wylder, V. D. T. (2006). Opening the doors of art museums for therapeutic processes. *Arts in Psychotherapy, 33*, 288-301. doi: 0.1016/j.aip.2006.03.003

Twenge, J. M. (2000). The age of anxiety? Birth cohort change in anxiety and neuroticism, 1952–1993. *Journal of Personality and Social Psychology*, *79*, 1007 −1021.

Twenge, J. M. (2006). *Generation me: Why today's young Americans are more confident, assertive, entitled — and more miserable than ever before*. New York: Free Press.

Twenge, J. M., & Campbel l, W. K. (2008). Increases in positive self-views among high school students: Birth cohort changes in anticipated performance, self-satisfaction, self-liking, and self-competence . *Psychological Science*, *19*, 1082 − 1086.

Twenge, J. M., & Campbell, W. K. (2010). Birth cohort differences in the Monitoring the Future dataset and elsewhere: Further evidence for Generation Me. *Perspectives in Psychological Science*, 5.

Twenge, J. M., & Foster, J. D. (2008). Mapping the scale of the narcissism epidemic: Increases in narcissism 2002 −2007 within ethnic groups. *Journal of Research in Personality* , 42, 1619 − 1622.

Twenge, J. M., Gentile, B., DeWall, C. N., Ma, D., Lacefield, K., & Schurtz, D. R. (2010). Birth

    cohort increases in psychopathology among young Americans, 1938-2007: A cross-

    temporal meta-analysis of the MMPI. *Clinical Psychology Review, 30*, 145-154.

U.S. Public Health Service. (2000). Report of the Surgeon's General's Conference on Children's

    Mental Health: a national action agenda. Washington, DC: Department of Health and

    Human Services

Vaillancourt, T., Duku, E., Becker, S., Schmidt, L., Nicol, J., Muir, C., & Macmilan, H. (2011)

    Peer victimization, depressive symptoms, and high salivary cortisol predict poorer

    memory in children. *Brain and Cognition 77*(2), 191-199.

Vasquez Heilig, J. (2010). Understanding the interaction between high-stakes graduation tests

    and English Learners. Working paper, University of Texas at Austin.

Vija, L. (2004): Art therapy and the brain: An attempt to understand the underlying processes of

    art expression in therapy. *Art Therapy: Journal of the American Art Therapy Association,*

    21(3), 125-135.

Vygotsky, L. (1978). "The role of play in development", in M. Cole, V. John-Steiner, S. Scibner,

    and E. Souberman (Eds.), *Mind in Society: The Development of Higher Psychological*

    Process, (pp. 92-104).

Wadeson, H. (2010). *Art Psychotherapy*. Hoboken, NJ: John Wiley & Sons, Inc.

Walkup, J. (2010). Treatment of depressed adolescents (Editorial). *The American Journal of*

    Psychiatry, 167(7), 734-737.

Wallace-DiGarbo, A., & Hill. D. C. (2006). Art as agency: Exploring empowerment of at-

    risk youth. *Art Therapy: Journal of the American Art Therapy Association*, *23* (3), 119-

125.

van der Weijer, E., Langenberg, G., Brandsma, R., Oort, F., & Bögels, S. (2012) The

effectiveness of a school-based mindfulness training as a program to prevent stress in

elementary school children. *Mindfulness,* November,1-11. doi 10.1007/s12671-012-

0171-9

Wilson, W. J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy.*

Chicago: University of Chicago Press.

White, L. (2009). Yoga for children. *Pediatric Nursing 35*(5), p. 277-295.

Wiggins, D. (2007). Pre-K music and the emergent reader: Promoting literacy in a music-

enhanced environment. *Early Childhood Education Journal, 35*(1), 55-64. doi:

10.1007/s10643-007-0167-6

Yen, C., Konold, T.R., & McDermott, P.A. (2004) Does learning behavior augment cognitive

ability as an indicator of academic achievement? *Journal of School Psychology, 42*, 157-

169.

Yoshikawa, H., Aber, J., & Beardslee, W. (2012). The effects of poverty on the mental,

emotional, and behavioral health of children and youth: Implications for prevention.

American Psychologist, *67*(4), 272-284. doi: 10.1037/a0028015

Zuckerman, M. (1979). *Sensation seeking: Beyond the optimal level of arousal.* Hillsdale, NJ:

Erlbaum.

Appendices