

9-11-2014

# The impact of dance/movement classes on adolescent behavior in an urban high school setting

Dinesha DeMesa-Simpson

Let us know how access to this document benefits you - share your thoughts on our feedback form.

Follow this and additional works at: <https://rdw.rowan.edu/etd>

 Part of the [Child Psychology Commons](#), and the [Student Counseling and Personnel Services Commons](#)

---

## Recommended Citation

DeMesa-Simpson, Dinesha, "The impact of dance/movement classes on adolescent behavior in an urban high school setting" (2014). *Theses and Dissertations*. 435.  
<https://rdw.rowan.edu/etd/435>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact [LibraryTheses@rowan.edu](mailto:LibraryTheses@rowan.edu).

**THE IMPACT OF DANCE/MOVEMENT CLASSES ON ADOLESCENT  
BEHAVIOR IN AN URBAN HIGH SCHOOL SETTING**

by  
Dinesha C. DeMesa-Simpson

A Thesis

Submitted to the  
Department of Psychology  
College of Education  
In partial fulfillment of the requirement  
For the degree of  
Master of Arts in School Psychology  
at  
Rowan University  
May 6, 2014

Thesis Chair: Roberta Dihoff, Ph.D.

© 2014 Dinesha C. DeMesa-Simpson

## **Dedications**

I lovingly dedicate my thesis work to my family and friends. This is a dedication to my grandparents, Helen and Hector, who have always been in my corner, cheering for me each step of the way. I dedicate this to my mother Belinda, who taught me to walk my own path with integrity, confidence and a little humor. I also dedicate this thesis to my beautiful son Ajani-Najee and to my husband Charles. You are both my inspiration and I could not have done this without your love and patience. I thank God for my gifts of grace and many blessings.

## **Acknowledgments**

I would like to express my appreciation to my professors, Dr. Roberta Dihoff and Dr. Terri Allen for their continuous support throughout this process.

## **Abstract**

Dinesha DeMesa-Simpson  
THE IMPACT OF DANCE/MOVMENT CLASSES ON ADOLECENT BEHAVIOR  
IN AN URBAN HIGH SCHOOL SETTING

2013/14

Roberta Dihoff, Ph.D.  
Master of Arts in School Psychology

The inclusion of the arts in education has been undervalued and overlooked by many public school districts throughout the country. As a result of cutbacks, dance programs in educational settings have become an afterthought. In this study the relationship between dance/movement classes and disruptive behavior was analyzed in a sample of 45 at risk students in an urban high school setting. The findings supported the hypothesis that a) dance classes can be utilized as an intervention to reduce stress and b) students who participate in dance programs in public school settings will develop self-control, self-regulation and exhibit less disruptive behavior. Implications for further research and arts programming are discussed.

## Table of Contents

Abstract	v
List of Figures	viii
List of Tables	ix
Chapter 1: Introduction	1
Focus of Study	1
Purpose of the Study	1
Hypotheses	1
Operational Definitions	1
Assumptions	2
Limitations of the Study	2
Summary	2
Chapter 2: Literature Review	3
Anxiety, Depression and Academic Success	3
Internal Stress	3
Stress in Early Childhood	4
External Stressors	6
Family	6
Highly Stressful Environments	6
Stress and Conflict Resolution	7
At Risk Students	7
Teen Dropout and Incarceration	9
Interventions	10

## Table of Contents (Continued)

Learning Styles and Difficulties	12
Behavioral Problems	15
Conclusion	19
Chapter 3: Methodology	20
Participants	20
Methods	20
Example of a Choreographic Projects Lesson Plan (1)	21
Example of a Choreographic Project Lesson Plan (2)	22
Materials	23
Procedure	24
Chapter 4: Results	25
Chapter 5: Discussion	28
Explanations of Findings and Implications	28
Gender Differences	28
Student Behavior Across Time	29
Stress Management and Emotional Wellness	29
Limitations and Recommendations for Future Research	30
Conclusions	31
References	32

## List of Figures

Figure	Page
Figure 1 Referrals According to Time of Assessment	26
Figure 2 A Decrease in Referrals (During and After Intervention)	27

## List of Tables

Table	Page
Table 1 Student Behavioral Referral Scores According to Time in Assessment	25
Table 2 Variance of Student Discipline Referrals According to Assessments across Time	25

## **Chapter I**

### **Introduction**

#### **Focus of Study**

Research supporting arts education in public school settings remains scarce. The current study highlights the importance of maintaining the arts in public schools for children of all educational levels. With the shortage of funding and cutbacks, arts education tends to be overlooked and often completely eliminated from the educational curriculum.

#### **Purpose of the Study**

Educational programs that include the arts can also serve as a therapeutic tool used to assist at-risk students with academic achievement as well as disruptive behavior.

#### **Hypotheses**

**Hypothesis one.** Subjects who participate in dance programs or classes in an academic setting will exhibit more self-control and less disruptive behavior.

**Hypothesis two.** Subjects who participate in dance programs or classes in an academic setting will learn ways to manage stress.

**Hypothesis three.** The number of student discipline referrals will vary significantly according to a participant's gender and/or participation in dance movement classes.

#### **Operational Definitions**

1. Stress-The way we respond to pressure physically and emotionally
2. Disruptive behavior –Acting out in school, fighting, disrespecting school authority, noncompliance of school policies, rules and regulations
3. At risk- Students who are more likely to fail as a result of their circumstances (disabled, economically disadvantaged).

4. Economically Disadvantaged- individuals or groups of people that experience financial hardship.
5. Movement Therapy-a psychotherapeutic intervention of movement and dance used to improve physical and mental well-being.

### **Assumptions**

The at-risk population of students will have a substantial amount of referrals prior to dance/ movement intervention.

### **Limitations of the Study**

The first limitation of the study is due to the small sample size given that the study was conducted at only one high school in the Southern New Jersey region. Another limitation is that the discipline referrals only reflect data collected over three school semesters.

### **Summary**

In chapter two, a review of the literature discussing the significance of dance education in academic settings, the correlation between dance and academic achievement, and mood changes after modern dance classes will be presented.

## Chapter 2

### Literature Review

In this chapter, the review of the literature will first present dance as an intervention to reduce stress and anxiety in adolescents. Second the relationship between movement classes and kinesthetic learning will be explored. Third, the impact of dance on behavior, social competence and personal development of teens will be discussed.

#### **Anxiety, Depression and Academic Stress**

**Internal stress.** Stress is a normal aspect of human life and can occur prior to birth during the fetal stages of development (Balamuga & Kumuran, 2008; Davis, Glen, Waffarn & Sandman, 2011). According to Almeida (2005), stress may arise in different forms and can potentially compromise and alter normal functioning. Savtchouck & Lue (2011) and Sedere (2010) further explain that stress is the body's response and reaction to challenging demands when there is an inability to cope. In 1936, Hans Selye used the term "stress" to define any internal or external negative stimulus (physical, mental or emotional) that disrupts normal functioning and overall well-being (Balamugan & Bittman, 2009).

#### Stress in Early Childhood

**Stress in early childhood.** Luby (2013) examined stress during the early stages of child development and concluded that children as young as the pre-school age of three could experience symptoms of anxiety and depression. Research conducted by Finello and Poulsen (2011), and Luby (2013) further explained that preschool depression could be characterized by the common symptoms of depression such as anhedonia, extreme guilt; changes in sleep, eating patterns and activity levels.

In regards to the educational setting, Gray (2011) noted that the absence of “free play” lends itself to a rise in depression, anxiety and narcissism as well as an increase in suicidal thoughts among children, teens and young adults. With an increase and focus on standardized test scores in schools, time allotted for creative activity and “free-play” has steadily diminished (Warner, 2008). The decline of “free-play” with other children hinders the development of intrinsic interest and capabilities, the forming of friendships, self-regulation, problem solving and the ability to follow rules (Gray, 2011). Consequently, children may begin to experience high levels of distress and an inability to develop coping strategies (Sedere, 2010; Gray, 2011).

Courtney (2005), Lohaus & Klein-Hebling (2000), argued that without exposure to stress management in school settings, children run the risk of developing unproductive and unhealthy coping mechanisms. Furthermore, ineffective stress management leads to a variety of acting -out behaviors which can result in eating disorders, substance abuse and behavioral defiance (Goldbeck & Schmid, 2003).

The research that Renolds, Schreiber, Geisel, MacPherson, Ernst and Lejuez (2013) conducted showed that there was a significant correlation between adolescents exposed to high levels of stress and risk taking behaviors. Further research confirm these findings and suggest that acting out behavior may also include episodes of aggression and impulsivity (Erwin, Heimberg, Schneier & Liebowitz, 2003; Kachin, Newman, & Pincus, 2001; Kashdan, Collins, & Elhai, 2006).

Chaplin, Gillham and Seligman (2009) concluded in their study on the gender differences in anxiety and depression that psychological anxiety predicted symptoms of depression in both teenage boys and girls. However, according to Alfvén, Östberg, & Hjern, (2008) high levels of stress and pressure from the demands of school were more prevalent among adolescent girls.

Peach (1992) studied perceived stress in adolescent students in rural high school settings. His findings were consistent with Alfvén's, Östberg's, & Hjern's, (2008) research and confirmed that more girls than boys reported an inability to cope well with school related stress. Likewise, in a longitudinal study that investigated the role of stressful life events in adolescents, girls experienced a higher degree of depressive symptoms than boys (Waaktaar, Borge, Helman, Fundingsrud, Hans, Christie, Johnsen & Svern, 2004).

According to Peach (2012), many students reported academics, grades, personal appearance, self-worth and test anxiety as the primary causes of school related stress. During the adolescent stage teenagers are often at risk for depression as a result of stressful events that take place personally, socially and academically (Latha and Hanumanth, 2006).

Research indicates that the occurrence of depression is beginning much earlier in life today in comparison to previous years. According to Lewinsohn, Rohde, Klein, & Seeley, (1999) an estimate of 28% of all adolescents will experience symptoms of major depression. Teens dealing with stressful life events; such as the loss of a relative, or being diagnosed with learning, conduct or attention disorders are at an even greater risk for developing clinical depression (Seeley, Rohde, Lewinsohn, & Clark (2002).

### **External Stressors**

**Family.** Adolescents may experience changes in family dynamics and family relationships which can contribute to several adjustment problems resulting in high levels of stress, anxiety and depression (Nilzon and Palmerus 1997; Branje, van Doorn, van der Valk, & Meeus, 2009). It is also common for many early adolescents to become at risk for experiencing episodes of low self-esteem, emotional problems, aggression and depression (Gunnar & Quevedo, 2007; Burghy, Stodola, Ruttle, Molloy, Armstrong, Oler, Fox, Hayes, Kalin, Essex,

Davidson, & Birn, 2012). According to Conger, Stocker & McGuire (2009) some familial stressors may include but are not limited to; family disputes, marital conflicts, parental divorce and financial strains.

### **Highly Stressful Environments**

Other highly stressful situations for adolescents may include living under compromising conditions associated with violence and low-social economic lifestyles (Rawles, 2010; Liberman and Cahill 2012). According to Aber, Bennett, Conley, & Li (1997); Wadsworth, Raviv, Reinhard, Wolff, Santiago, & Einhorn (2008) individuals who live in low socio-economic conditions are at greater risk of experiencing very severe and chronic stress related life events. Stressors that occur as a result of poverty, unemployment and underprivileged living tend to be highly associated with physical and mental health related issues Evans & Kim, (2013); McBride, Berkel, Gaylord-Harden, Copeland-Linder & Nation (2011).

### **Stress and Conflict Resolution**

Wadsworth, Wolff, Santiago & DeCarlo (2008) studied primary and secondary control coping strategies for impoverished adolescents. Their research indicated that in order to offset the development of psychological problems associated with poverty related stressors, adolescents needed to address issues related to low social- economic problems through primary control coping techniques such as problem solving and utilizing emotional expression techniques.

Lacrois (2010) conducted a study where participants learned a variety of West African dance styles. The primary focus of the study was to expose students to cultural dances that aimed to encourage peace and reconciliation as a means of conflict resolution. The six subjects in this study met three times a week for four weeks to learn a dance called peace dance called Dounouba. According to Lacrois (2010) the purpose of the dance in West Africa is to establish a

resolution before going to war. The researcher used participant reflections to collect data. The results of the study showed that cultural dance could be used as a tool to encourage creative and alternative methods of dealing with conflict.

In a study on Locus of control and conflict resolution in adolescents and young adults, Saville (2007) noted that during the early stages of adolescent development, undeveloped problem solving skills resulted in a tendency to adopt ineffective coping strategies such as anger, withdrawal, distraction and avoidance in comparison to effective strategies used in adulthood.

In a peer/conflict resolution study, conducted by Laursen, Frankenstein & Betts (2001) the results showed that adolescents (ages 11-18), used disengagement (standoffish behavior, and withdrawal) most to resolve peer conflicts. Males and females did not show any difference in exhibiting overt anger. However, males displayed more direct physical aggression while females have been shown to inflict mental discomfort on to their peers (Bjorkqvist, Lagerspectz, & Kaukianen 1992). The study suggested that during the adolescent stage of development, teens have an underdeveloped locus of control and are less likely to effectively solve conflicts. The study also reiterated the need for educational and behavioral intervention for at-risk students.

### **At Risk Students**

Research indicates that children who experience prolonged episodes of stress may experience a disruption in the developing brain which may later contribute to problems with learning, behavior and overall physical and mental well-being across the life span (Wiggins, Fenichel & Mann, 2007; National Scientific Council on the Developing Child, 2004).

As noted by Soulis, Spiridon, Floridis & Theodore (2010) students with mild intellectual disabilities frequently experience school related stress and are often faced with constant challenges and difficulties. In a study assessing stressors related to school life among this

population, results showed that academic achievement, class participation, injury, teacher acceptance and parental expectations were contributing factors of stress. It was concluded that mainstream education should support and implement interventions to help students become successful at navigating and handling school related stress. According to Soulis, Spiridon, Floridis & Theodore (2010) students need to be supported, guided and instructed according to their individual emotional, behavioral and academic needs.

Students diagnosed with Attention Deficit Disorder exhibit behaviors such as inattentiveness, impulsiveness, hyperactivity or a combination of the three (Brock and Clinton 2007). Research indicates that ADHD affects many functions of the brain (Cameron, 2011). However, although it is currently still unclear where to identify the exact location of these imbalances (Cameron, 2011) a large portion of research supports the belief that ADHD is caused by dysfunction located in the prefrontal cortex of the brain (Barkley, 1997; Brennan & Arnsten, 2008; Dige & Wik, 2005). According to Du Pual, Eckert & Vilaro (2000), school based interventions, should include behavioral modifications and academic instructional strategies that facilitate and support the learning process of students diagnosed with ADHD.

According to Fitzsimmons (1998) students with emotional and behavioral disorders exhibit aggressive behaviors as a result of an inability to cope with frustration and stress. It is particularly during times of stress that aggressive students misconstrue social cues and irrationally become hostile toward others (Fitzsimmons, 1998; Loeber, Burke, Lahey, Winters & Zera, 2000; Connor, Ford & Chapman, 2012). However, Poysure, 2004 further explains that in some cases, students diagnosed with emotional and behavioral disorders may in fact be the victims of post-traumatic stress disorder. According to Burke, Loeber & Birmaher (2002) some of the psychological and social factors associated with emotional and behavioral disorders are;

abuse, poverty, a chaotic and stressful environment, family instability and absentee or neglectful parents.

### **Teen Dropout and Incarceration**

Research has shown that more than half of the students in the United States are classified as at-risk for failing academically (Schargel & Smink, 2001). Students who are labeled at risk are likely to experience academic and behavioral problems such as low test scores, grade retention, discipline problems, and dropping out school (Hickman, Bartholomew, Mathwig, & Heinrich, 2008; Hickman & Garvey, 2006; Schargel & Smink, 2001). According to Schargel & Smink (2001) adolescents who are at risk tend to experience stress related problems that stem from poverty, broken homes, divorce, teen pregnancy, drug abuse and violence. As a result of stressful and unstable living conditions, many students leave school without any effective coping or stress management skills to lead healthy successful adult lives (Bailey & Stegelin, 2003; Hickman & Garvey, 2006; Orfeld, Losen, Wald, & Swanson, 2004).

Delinquency, aggression and antisocial behavior often result in incarceration among a large number of adolescents (Odgers, Burnette, Moretti, Reppucci, 2005). Research studies have shown that there is a high correlation between adolescent offenders and mental health disorders which include; attention deficit hyperactivity, anxiety, depression, attention and substance abuse (Domalanta, Risser, Roberts, Risser, 2003; Odgers, Burnette, Moretti, Reppucci, 2005).

According to Odgers, Burnette, Moretti, Reppucci (2005) in order to address the needs of at-risk students and lower the risk of behavioral and mental health problems, sensitive and effective intervention strategies need to be developed and implemented by mental health institutions and within educational settings. It is also advised that Educators continue to engage

in professional development and trainings that aim to foster emotional and behavioral adjustment for our youth (Shonkoff & Phillips, 2000; Honig, 2002).

### **Interventions**

As noted by Coyle and Vera (2013) adolescents are exposed to damaging and unfavorable coping mechanisms during this developmental stage. Teenagers tend to react negatively and inappropriately when confronted with high levels of stress (Coyle and Vera, 2013). In order to redirect unhealthy methods of coping, students need to be exposed to positive coping methods and interventions (Coyle & Vera, 2013; Jewett, 1997; Britt, 1995; Sanchez, Lambert, & Cooley-Strickland, 2013). Educators can support the health, well-being and academic success of adolescents by incorporating movement based instructional strategies into the classroom and academic curriculum (Moore & Linder, 2012; Beaudoin, 2011; Sconing, 2008). According to Tortora (2004) dance can be used as an intervention to address conditions such as anxiety, depression and behavioral disorders in adolescent students.

**Dance used as an intervention to reduce stress and anxiety.** De Anda, Bradley, Collada, Dunn, Kubota, Hollister, Miltenburger, Pulley, Susskind, Thomas & Wadsworth (1997) conducted a study on coping strategies among middle school adolescents. Their research suggested that adolescents who experienced high levels of stress exhibited low self-esteem, anxiety, behavioral problems, learning difficulties and an inability to get along with peers. In a more recent study, Krag, Van Breukelen, Kok and Hosman (2009) noted that there was a high prevalence of stress in adolescent students, especially for those with inadequate coping skills. The researchers concluded that there is a growing need for school-based prevention programs that will assist adolescents with stress reduction and the development of effective coping skills.

According to Jensen (2000) movement has been shown to decrease stress by providing relief from musculoskeletal tensions. Lengel & Kuczala (2010) and (Helgeson, 2011) further explain that adolescents can especially benefit from physical movement as they tend to experience additional stress as a result of hormonal imbalances. According to Jensen, (1996) students who suffer from stress experience difficulty learning because their brains primarily focuses on survival (self-protective mode) while the learning process becomes stagnated and blocked. However, with the increase of movement activities implemented into the classroom, students are able to release the hormones (dopamine, serotonin, adrenaline, and endorphins) associated with positive attitudes, attentiveness and engagement which fosters constructive learning (Jensen, 2000; Lengel & Kucsala, 2010). The release of the hormones noradrenaline and dopamine during movement in the classroom can enhance the retrieval and storage of information; therefore, improving the overall learning process (Jensen, 2000).

Lane and Lovejoy (2001) studied the effects of exercise on mood changes in moderate depression. The participants were 80 exercisers who were previously engaged in an aerobic dance class for three months. The participants were required to complete the Profile of Mood States-A 15 minutes prior to attending a dance class and also immediately after the dance class. Using pre-exercise depressed scores, the participants were grouped into either a depressed mood group or a non-depressed group. The intervention was a 60 minute dance class which consisted of a traditional warm- up, movement session and a cool down. The results showed that there was a significant reduction in negative mood (anger, confusion, fatigue, tension and vigor) for both groups. The results also indicated that the reduction in negative mood was significantly greater in the depressed group.

West, Otte, Geher, Johnson & Mohr (2004) conducted a study on the effects of Hatha Yoga and African Dance on perceived stress. In this study, 69 college students were required to participate in an African dance class, a yoga session, or biology lecture for 90 minutes. The participants completed both the Perceived Stress Scale and the Positive Affect and Negative Affect Schedule before and after the intervention. The results indicated that both African dance and yoga classes significantly reduced perceived stress and negative mood. The researchers of this study also suggested that these interventions may be effective tools in reducing stress and/or managing distress. As noted by West, Otte, Geher, Johnson & Mohr (2004) a consistent yoga and dance practice may ultimately reduce the secretion of cortisol (stress hormone), which can positively affect overall emotional well-being.

### **Learning Styles and Difficulties**

According to Honigsfeld and Dunn (2009) the traditional classroom environment without hands on learning and movement can become a great disadvantage for at risk, low achieving students who happen to be tactile and kinesthetic learners. Research has indicated that students primarily benefit from instruction that accommodates their academic needs as well as their learning styles (Hognisfeld & Dunn, 2009). Therefore, educators can help many low achieving students reach academic success by incorporating movement and or movement classes into the curriculum.

Shovel and Shulruf (2011) in their study on cooperative learning involving various movement activities found that movement activities were most beneficial to the lower achieving students who made the most improvement throughout the study.

Lamond (2010) examined the impact of incorporating dance into the curriculum of children with profound multiple learning disabilities. A dance workshop was given to a group of

10 students ages 10-16. The participants were selected by the staff members of the attending school. All of the participants represented the most disabled students of the Lancashire school. The workshops ran once a week for approximately an entire school year during 2005 and 2006. Each session lasted for approximately 40 minutes to an hour. The researcher used an annual student appraisal system called PIVATS in three fields consisting of a) interacting and working with others, b) attention, and c) independent and organizational skills. A comparison of scores obtained a year before movement classes and during the year of the dance intervention was made to evaluate the overall impact of the movement program. The results showed that there was an increase in the rate of development in the three fields (PIVATS) during the year of the dance/movement intervention. There were limitations on this study due to the small sample size as well as possible extraneous factors that may have had an effect individual student's development. Therefore, there is a need for more sophisticated analysis with a larger population size.

In 2007, Redman conducted a study on the use of dance movement therapy as a treatment for (non-medicated) special education students diagnosed with Attention Deficit Hyperactivity Disorder. Out of the five male participants ranging from 6-11 years of age, two were randomly assigned to the control/comparison group and continued with their regular education services. The other three students participated in the dance movement therapy intervention group. The researcher compared data from field notes and data received from teachers who completed both the Baltimore County Public Schools Classroom Teacher Checklist of Student's Behaviors and the Dance/movement therapy Progress Data Teacher Rating Form-Readiness to Learn. The intervention group met once a week for thirty minutes. A pre- and post test was given at the beginning, middle and very end of the study to keep track of each student's progress. The

researcher focused on the rate of change in the Activity, Attention and Conduct categories. The results of this study indicated that two of the three participating subjects in the treatment group showed significant behavioral improvement according to the Readiness to Learn Scale. The intervention scores on The Baltimore County Public Schools Behavior Checklist were also associated with scores that remained the same or improved over the course of the eight weeks.

Research also indicates that dance can be utilized as an effective tool to enhance instruction across the curriculum. Ross (2000) investigated the impact of a dance program on first grade students' basic reading skills at three Chicago public schools. The 20 sessions of dance which was led by three dance specialists focused on teaching students to create shapes through physical movement that would represent letters and letter combinations. Out of the twelve schools that participated in the study, nine schools were designated as control schools. The participants consisted of mostly African American poverty level children, where 174 children participated in the Basic Reading through Dance program and 198 children participated in the control group. A pre- and post test in reading was administered using the Read America's Phono-Graphix Test. This assessment tested the students' ability to identify sounds for letters and assessed their phoneme segmentation abilities. The scores gained in the Basic Reading program was compared to the control group over a course of three months. The results showed that both groups improved in reading significantly. However, the Basic Reading through Dance group showed improvement in their understanding of consonants and vowels in comparison to the control group. The study suggested that dance (creating letters with one's body) be used as an innovative method to teach children how to recognize sound and symbol relationships. This study demonstrated that movement in the classroom has the potential to foster academic learning

and reinforce cognitive development. Future research may replicate this study by using similar methods with older children to teach advanced reading and writing skills.

### **Behavioral Problems**

Dance classes and movement therapy have also shown some promise for treating students with behavior problems (Woolery, Myers, Stermlieb and Zeltzer, 2004). Research suggests that dance and movement classes in academic settings may also serve as a therapeutic tool to help young people with social interventions and personal development (Goodgame, 2007; Ross, 2000).

Lobo and Winsler (2006) conducted an eight week study on the effects of a creative dance and movement program on the social competence of head start preschoolers. The children were randomly assigned to an experimental dance group or an attention control group. Both Spanish and English versions of the Social Competence Behavior Evaluation were used by parents and teachers to rate the children's social competence prior to the start of the program and at the end of the program. The purpose of this study was to show how creative dance classes could serve as a tool to assist at risk pre-school children with the acquisition of positive behavior and social development. The participants in this study were recruited from three classrooms from a head start program located in a large metropolitan area located in the mid-Atlantic region of the United States. The selected group for this study consisted primarily of African American and Latino children who came from families of low socio-economic backgrounds. After receiving returned consent forms from the parents, the initial participating group consisted of 43 children. However, as a result of three families relocating to different areas prior to the start of the program, the final group consisted of 40 participants. The members were randomly divided into an experimental group of 21 and a control group of 19 children. Both groups were assigned to different rooms at the pre-school center and met for 35 minutes, twice a week for 8 sessions.

In the attention control group, the students were allowed to engage in unstructured free time or free play while the experimenter was in the room. However, the dance/creative movement groups were given opportunities to engage in creative thought followed by exploratory movement which was facilitated by the experimenter. Dance themes and concepts such as; the exploration of shapes, force, form and body parts were incorporated into the lessons and revisited throughout the sessions. Similar to the pedagogical style of most dance lessons, the structure of the sessions consisted of a greeting, warm-up, a short story (reinforcing the theme), thematic improvisation and a closing or cool down. The participants of the movement classes were also encouraged to use and play with a variety of instruments and props (ex. butterfly wings and scarfs), as well as dance with partners during movement exercises. The participants were allowed to engage in high energy exercises as well as improvisational studies (creating individual movement phrases). The experimenter used relaxing music as the impetus for movement and creation.

The Social Competence Behavior Evaluation (Pre-school edition) was used to evaluate students' overall social competence. The study showed very good consistency reliabilities for social competence, internalizing behavior and externalizing behavior. At pretest, the random groups did not end up as comparable as expected. The experimental group (by chance) ended up having a few more members with behavioral and social problems, which resulted in unequally distributed groupings or slight group differences at pre-test. The researcher used an analysis strategy to examine the pre-test, post test and change over time. The results showed that the children who participated in the dance program made significant improvements in social competence over the course of the study. The findings in this study suggest that there are positive effects of a creative dance program in children's social competence and behavior. It

also supports the implementation and expansion of dance movement classes as intervention in academic settings among at risk, low income minority children (Denham and Burton 2003).

Janice Ross (2000) examined the impact of dance on social development for at-risk students and incarcerated adolescents. The 60 subjects in the study ranged from 13-17 years of age. The adolescents attended 45 minutes of jazz and hip hop classes for 10 weeks. The sessions were led by one dance major and 10 additional college students with dance backgrounds. The principal researcher gathered data from reflection journals, in class discussions and written summaries to eventually build a final portfolio for each student. The focus of the intervention was to release physical and psychological stress in adolescents by allowing them to engage in expressive movement rather than engage in extremely competitive activities such as sports. Additional goals in the study focused on addressing mal adaptive social behaviors and the development of positive social identities by allowing the subjects involved in the dance classes to express individuality within a group setting. The qualitative study found that low income, non English-proficient middle school students and incarcerated teens showed an increase in confidence, tolerance and persistence in a dance instructional environment. The study highlighted the benefits of dance and its use as an effective tool for social interventions such as the ones mentioned in this study. This study focused specifically on the delivery of jazz and hip-hop dance as an intervention.

Wells (2012) investigated the effects of incorporating movement into the classroom on a daily basis. The aim of the research focused on highlighting the impact of movement on student achievement, behavior and attitude. The five week study consisted of 60 middle school participants from ethnically diverse backgrounds (23 African American students, 26 Caucasian students, 8 Hispanics students and 3 Asian students). Student surveys were given to students both

prior to and after the intervention. Behaviors were observed and recorded by the researcher during the first and last week of intervention for 45 minutes. A daily journal was used by the researcher to record observations related to achievement, behavior and attitude. A variety of movement strategies were used as an intervention, which included; class breaks consisting of movement challenges, movement within lessons, and the use of stress balls during silent reading. In this mixed method study, qualitative and quantitative data were gathered (observational journals, monitoring grades, behavioral checklists and student surveys) simultaneously to backup and confirm the findings of both methods. The results of this study showed that movement intervention had no effect on academic achievement and student attitude. However, the analyses of the effects of movement on behavior revealed more positive results. The findings suggested that movement interventions may in fact decrease off task and disruptive behaviors in adolescent students. According to Wells (2012) the incorporation of purposeful movement in the classroom over a longer duration of time may have positive effects on student behavior and learning. There were limitations in this study due to the short duration of movement intervention.

Giguere (2011) examined the influences of social interactions and learning environment of children's creativity in dance. Thirty-seven subjects participated in a Philadelphia Artist in Residence school project for ten days. The students who worked with the guest artist were required to work together as a team to create group dances based on a theme. The researcher collected data from four sources which include: Video tapes of the choreographic sessions, interviews, journals and brainstorming sheets. Throughout the sessions, the researcher focused on the following categories to obtain additional data and feedback from students which included: constructing movement, organizing movement, understanding the movement, the group process,

feelings about choreography, an awareness of the audience, and new experiences. The results showed that the class environment (dance classes and group activity) aided in students' productivity and cognition. The conclusions of this study support previous research which highlights the academic, social and behavioral benefits of dance.

### **Conclusion**

Chapter Two was a review of the literature which highlighted the impact of dance on stress and anxiety reduction in adolescents. Chapter Two also discussed the ways in which dance can be used as a tool to enhance instructional outcomes through kinesthetic learning. Finally, the research indicated that explorative and creative movement could be used as a school-based intervention to improve social skills, behavior, and personal development.

## **Chapter 3**

### **Methodology**

#### **Participants**

The participants in this study were 45 students attending a secondary school at an urban school district in the southern New Jersey region. The school district has been classified by the New Jersey Department of Education as a District Factor Group “A”, which is among the lowest of the eight socio-economic groupings within the state. The sample population consisted of 73.3% African American, 22.2% Hispanic, 2.25% Caucasian and 2.25% of mixed heritage.

The participants in this sample represented students who registered to take dance class for a minimum of one semester as an elective requirement. Samples were taken from this particular school district because the participation in this study was board approved by the district superintendent.

The sample was selected based on students who took dance class during the fall or spring semester of the 2012-2013 school years. Among the 45 participants, 11 students had Individual Education Plans, and 2 out the 11 students had emotional and behavior disorders.

#### **Methods**

The participants attended daily dance classes for an hour and a half each day (blocked scheduling). The classes consisted of “Do Now” assignments where students learned dance vocabulary, dance history, theory, and completed short creative journal writing assignments. Following the “Do Now” assignments, the students participated in a ballet barre warm-up, which took place twice a week. On alternate days, the students were engaged in modern/ jazz warm-up exercises for approximately thirty minutes. In addition to the warm-up activities, the subjects participated in across the floor activities which enabled them to develop, build and enhance

technique skills among a wide range of genres which included: ballet, modern, jazz, social and cultural dances.

The last two components of the class were devoted to choreographic projects and performance preparation. Through a cooperative learning instructional approach, the students worked in smaller groups to engage in exploratory movement with a focus on improvisation and dance composition studies. The primary goal of this component of class aimed to foster self-expression through various creative movement exploration assignments.

During the choreographic project assignments, which included (1-2) assignments per marking period, the students were given approximately 30 minutes to create short movement sequences by experimenting with rhythmic timing, exploring space and using different movement qualities. Initially, to encourage socialization among the class, students were randomly assigned to small groups by the instructor. However, the assignments that followed were designed to give the students freedom and autonomy to create and establish their own groups. The students worked collectively in small groups to apply dance composition skills and concepts during the creative process. At the conclusion of the assignment, the students presented an informal showing of their group choreography to peers, classmates and other teachers within the school.

**Example of a Choreographic Project Assignment/Lesson Plan (1):**

- Students are divided into 3 or 4 equal groups depending on the class size.
- The students are given a specific piece of music to work with as an impetus to explore rhythm, space and movement.
- The students engage in the choreographic process by creating 3-4 counts of 8 collectively within a 25 minute time frame.

- The instructor acts as a facilitator to ensure that all of the students are on task and engaged in the choreographic process.
- The students practice and rehearse the set choreography as a group for approximately 5-10 minutes.
- The members of the group continue to create new choreography on a daily basis until the piece is fully completed.
- The students are graded on their individual contributions to the piece as well as how well they work with other members of the group.
- The group is given the opportunity to perform their work in front of other classmates.
- The students are also given the opportunity to critique and self-evaluate their work by watching their individual pieces on video.

**Example of a Choreographic Project Assignment/Lesson Plan 2:**

- The students select a specific piece of music they are interested in using to complete the choreographic project assignment.
- The students are given the freedom to establish their own groups by inviting peers within the dance class to perform in the piece (note: group sizes will vary and some students will opt to work in smaller group sizes or create solos of their own).
- The assignment is facilitated by the instructor while the students aim to complete short movement phrases each day (allotted approximately 20-30 minutes per session).
- The facilitator encourages the students to work collectively toward the final product of the dance composition. The students may contribute to the project and the creative process in a variety of ways which include but are not limited to: choreographer,

performer, rehearsal organizer, music keeper, space designer, costume designer and videographer.

- Upon completion of the assignment (approximately 6-8, 30 minute choreography sessions) the students receive a final grade on their ability to engage in the creative process, compose short pieces, build performance skills and work cooperatively with others.
- The students are also encouraged to self-evaluate their individual work and critique the performance of their peers by using a creative process and performance rubric.

Following the district's performing arts curriculum, the participants were also involved in a major dance production at the end of the semester, where they were given the opportunity to perform a variety of dance repertory pieces choreographed by the instructor. The students were required to rehearse for 25 minutes daily for two months prior to the performance. During this time, each student was given feedback regarding the strength and weaknesses of their individual performance as well as positive reinforcement for demonstrating good work ethics.

## **Materials**

The referrals used in this study were retrieved from archival data stored in Genesis (web-based student record data for New Jersey schools). The database of referrals identifies the specific time, date and type of school disciplinary infraction incurred by each student. Types of disciplinary infractions included the following:

1. Verbal Abuse or Use of Profanity
2. Fighting
3. Failure to follow rules and regulations
4. Cutting class

5. Possession of electronic devices
6. Defiance/Dress code violation
7. Disrespectful to staff
8. Disruptive inappropriate behavior
9. Insubordination
10. Trespassing
11. Excessive lateness to class
12. Threats toward another student

The disciplinary recourse depends on the severity of the infraction and may result in any of the following disciplinary actions: in-school suspension, central detention, conference with student and administrator, conference with student and counselor, or out-of-school suspension.

### **Procedure**

First the participants selected dance as a course to fulfill their high school elective requirements. The participants were engaged in daily technique, creative movement and repertory rehearsals for approximately 90 days.

Second, a web-based student record (Genesis) was used to retrieve referrals and gather data on behavioral outcomes for participants who were involved in dance/movement classes during the 2012 and 2013 school year. The data collected from Genesis was analyzed to investigate whether there was a decline in disruptive behavior among dance students over time. Analyses of was conducted to determine if there was a significant difference between gender groups exposed to semester long movement classes. Finally, interpretations, inferences and observations were made from the analyzed data.

## Chapter 4

### Results

A mixed measures two-way analysis of variance (ANOVA) was calculated to assess whether the number of student discipline referrals varies significantly according to a participant's gender and/or participation in dance movement classes. Regarding gender, the findings were not significant,  $F(1, 45) = 1.369, p = .248$ . Regarding participation in dance movement classes, the number of student discipline referrals decreased significantly during and after participation in dance movement class,  $F(2, 45) = 8.034, p = .001$ . Number of discipline referrals differed according to time in assessment: Before Dance/ Movement classes ( $M = 2.667, SD = 2.908$ ), During Dance Movement Classes ( $M = 1.556, SD = 2.302$ ), After Dance Movement Classes ( $M = 1.667, SD = 2.365$ ). The results specific to this ANOVA are presented in Table 1 and Table 2.

Table 1

*Student Behavioral Referral Scores According to Time in Assessment*

Time	N	Mean	Minimum	Maximum	Standard Deviation
Before	45	2.667	0	12.00	2.908
During	45	1.556	0	13.00	2.302
After	45	1.667	0	9.00	2.365

Note: The time frame (before, during and after) refers to the amount of referrals incurred by students during three consecutive semesters (prior to intervention, during intervention and after intervention).

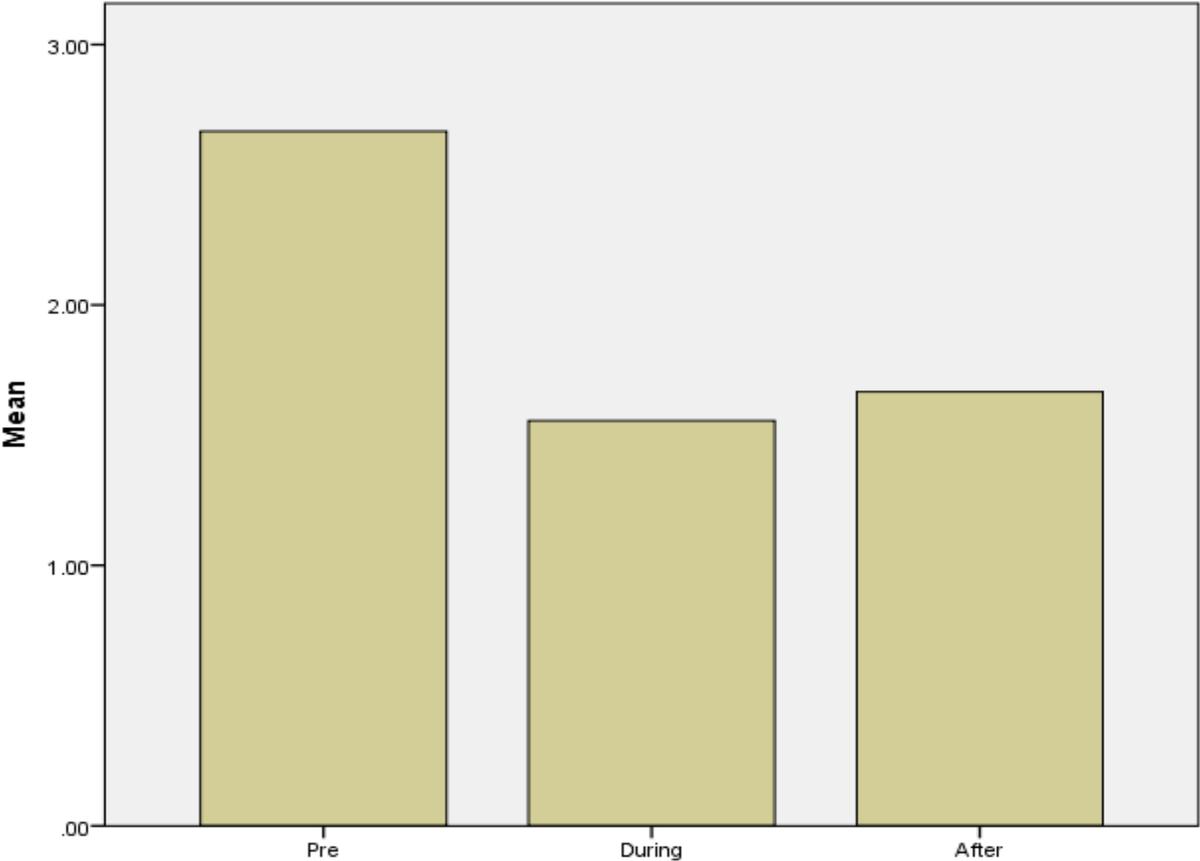
Table 2

*Variance of Student Discipline Referrals According to Assessments across Time*

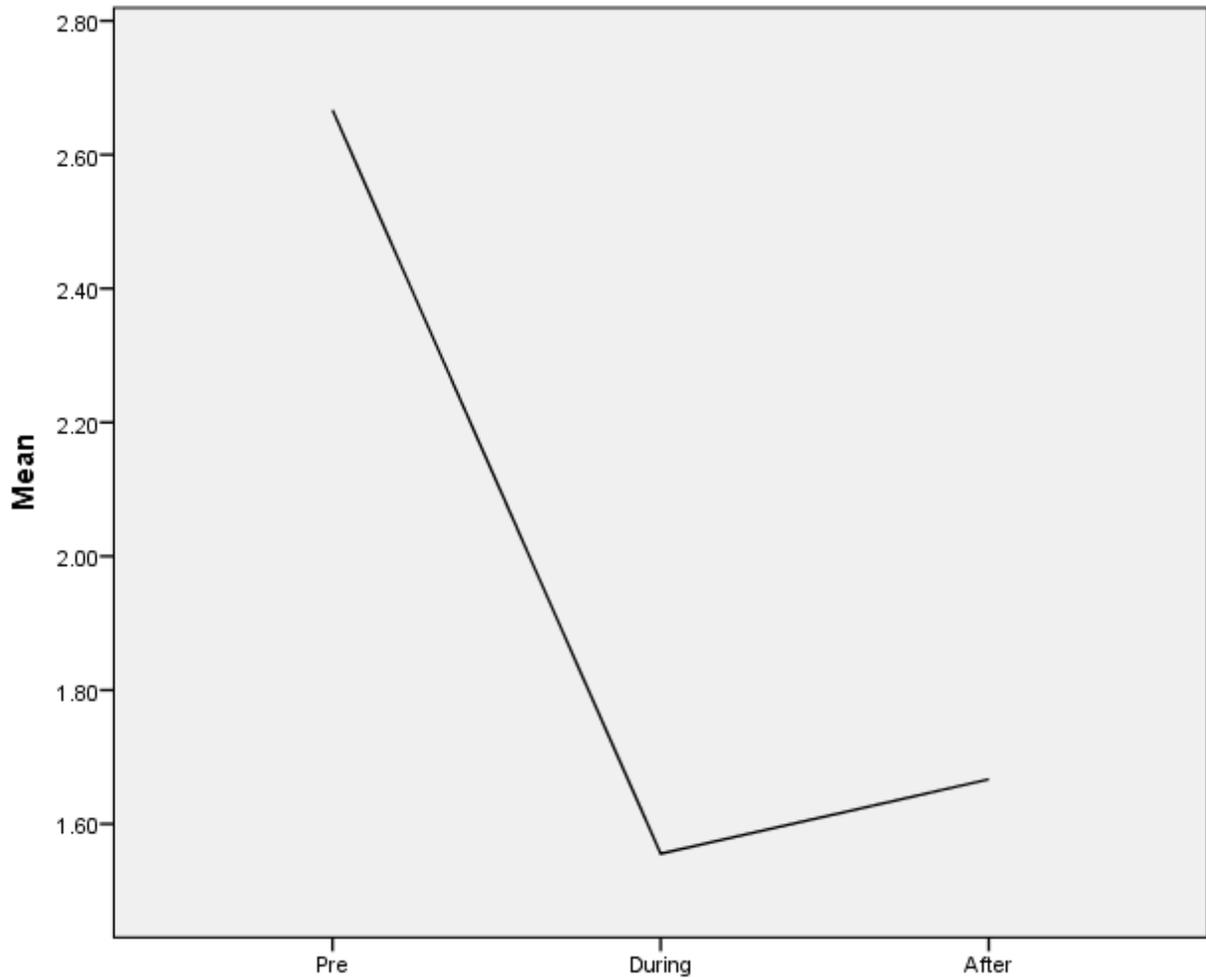
Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Within groups	2	40.668	20.334	8.034	.001***

\*\*\*Findings are significant at  $p = 0.001$ .

Figure 1 presents the amount of referrals students received prior to intervention, during intervention and after the intervention of dance/movement classes. Figure 2 indicates a decrease in referrals during and after intervention.



*Figure 1: Referrals According to Time of Assessment*



*Figure 2: A Decrease in Referrals (During and After Intervention)*

The first hypothesis stated that students would exhibit less disruptive behavior and more self-control after participating in dance/movement classes. There was a substantial decline in the amount of referrals incurred by students during and after participation in dance classes.

The second hypothesis indicated that dance students would develop better coping skills and learn ways to manage stress. Based on the decline in referrals, students exhibited more self-regulation (stress response system development) and less impulsivity (responding appropriately to stress).

According to gender, there was no significant statistical difference found for the third hypothesis.

## **Chapter 5**

### **Discussion**

#### **The Explanation of Findings and Implications of Research**

The purpose of this research was to present dance as an intervention to reduce stress and anxiety in adolescents, explore the relationship between movement classes and kinesthetic learning, and discuss the impact of dance on behavior, social competence and personal development. Referral records of students enrolled in dance classes, grades 9, 10, 11 and 12 were examined. The amount of disciplinary infractions was investigated during three school semesters (before dance classes, during dance classes and after dance classes) to determine if there was a decline in referrals across time.

#### **Gender Differences**

There was no significant correlation found between gender and improved behavior over time. The reason for this may have been largely due to the small sample size of students enrolled in the dance program during the time of the study. However, it is worth noting that boys are more likely to exhibit inappropriate classroom behavior than girls (Wehmeyer & Schwartz 2001). Therefore, assumptions can be made that boys would also have a tendency to acquire more discipline referrals than girls. Furthermore, it is reasonable to assume that as a result of dance intervention, a decline in referrals would occur more for boys than girls. However, the findings in this study indicated that there was no significant statistical data signifying any major gender differences in behavioral outcomes. Since research literature concludes that at-risk boys are in great need of behavioral interventions (Bell, 2001; Meyeda & Sanders, 2007; Sanders, 2008), a larger sample size of this study may have yielded different results supporting the benefits of dance /movement classes for this particular student population.

## **Student Behavior Across Time**

The results from examining student behavioral referrals across time were encouraging. The decrease in behavioral incidents showed that there was a substantial decline in the amount of referrals incurred by students during and after the participation of daily dance classes. These results indicated that movement classes had a positive impact on adolescent behavior. The findings also suggested that at-risk students of low socio-economic backgrounds could benefit greatly from involvement in dance education offered as a daily component of the school curriculum.

Although the number of student referrals reported was much lower during the participation of movement classes, the rates of referrals began to gradually increase during the semester without dance classes. This gradual increase in student referrals suggested that in the absence of behavioral interventions such as dance/movement classes, students with persistent behavioral problems might have a tendency to act-out and exhibit inappropriate behavior.

Although there was a gradual increase in student referrals during the semester after intervention, the number of referrals remained relatively low. The overall findings and statistical data reiterated the importance of dance education and its significant impact on the long-term effects of student behavior.

## **Stress Management and Emotional Wellness**

This study has also implied that participation in dance classes lends itself to improved social competence and overall well-being in adolescent students. The social value of dance participation extended far beyond physical activity, exercise and entertainment. The wide range of dance activities and creative assignments that were given during enrollment, enabled students to work collectively to produce innovative dance works, while forming peer relationships,

developing trust and establishing new friendships. As stated previously in the literature, in a supportive and nurturing environment, dance students are given the opportunity to gain self-confidence through kinesthetic learning, bodily experiences and social relationships (Gardner, Komesaroff & Rensham, 2008).

As dance students gained social competence and personal development, they were more apt to continue to practice self-regulation by managing unproductive stress and other school related conflicts. The activities in dance classes such as ballet, yoga, creative and expressive dance enabled students to focus on releasing tension through movement and relaxation. It is important to emphasize that relaxation skills acquired very early in life through the practice of various movement techniques can become the building blocks to acquiring additional skills later in life.

### **Limitations and Recommendations for Future Research**

Although the data analysis revealed significant findings to support my hypothesis, there are still limitations in this study.

**Limitations.** There were limitations in this study due to the small sample size. The focus of the study was conducted over three school semesters. However, if the study was implemented over a longer period of time, data from additional behavioral discipline reports may have strengthened the validity of the intervention and conclusion of the study.

**Directions for future research.** It is suggested that future research involve a larger sample size by replicating similar studies at various schools within inner city school districts. Future researchers might also conduct a longitudinal study by observing subjects over a longer period of time and tracking students throughout different grade levels. Also, the behavior of

dance students in urban high school settings can be compared to the behavior of non-dance students in similar settings.

## **Conclusions**

Previous research indicates that participation in dance classes enables students to cultivate their talents and develop important skills that will help them succeed beyond the classroom. The process of engaging in creative expression through movement, building peer relationships and developing critical thinking skills helped the students realize their potential to achieve success. For many of the students, dance served as an artistic discipline and a physical outlet to relieve bodily tension and reduce stress. More importantly, the nurturing and supportive environment fostered students' personal growth toward independence, cooperation and responsibility. These learned tools translated to the ability to engage in self-control and self-regulation, resulting in significant gains and behavioral improvements.

Advocates of the arts and researchers must continue to highlight the benefits of dance classes and its powerful impact on student behavior. Including dance as an art form into the daily curriculum fosters a wider range of learning and provides students with an abundance of skills that will serve them in and beyond the classroom.

## References

- Aber, J. L., Bennet, N. G., Conley, D. C., & Li, J. (1997). The effects of poverty on child health and development. *Annual Review of Public Health, 18*, 463-483.
- Alfven, G., Ostberg, V., & Hjern, A. (2008). Stressor, perceived stress and recurrent pain in Swedish schoolchildren. *Journal of Psychosomatic Research, 65*, 381-387.
- Almeida, D. M., & Wong, J. D. (2009). Life Transitions and Daily Stress Recesses. In G. H., Elder, Jr., & J. Z. Giele (Eds.), *The craft of life course research* (pp. 41-162). New York: Guilford Press.
- Almeida, D.M. (2005). Resilience and vulnerability to daily stressors assess via diary methods. *Current Directions in Psychological Science, 14*, 64-68.
- Atkins, F. D. Children's perspective of stress and coping: An integrative review. *Issues in Mental Health Nursing, 12*, 171-178.
- Bailey, B., & Stegelin, D. A. Creating a sense of place: Anchoring at-risk students within K-12 classrooms. *The Journal of At-Risk Issues, 9*(2), 17-26.
- Balamurugan, M., & Kumaran, D. (2008, April). Development and Validation of Students' Stress Rating Scale. , 7(1), 35-42. Retrieved May 5, 2014
- Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: Constructing a unifying theory of ADHD. *Psychological Bulletin, 121*(1), 65.
- Beaudoin, C. (2011). The Impact of Purposeful Movement in Algebra Instruction. *Education, 132*(1), 82-96.
- Bell, C. (2001) Cultivating Resiliency in Youth. *Journal of Adolescent Health, Vol. 29*, No. 5,-
- Bittman, B., Dickson, L., & Coddling, K.(2009). Creative Musical Expression as a Catalyst for Quality of Life Improvement in Inner-city Adolescents Placed in. *Advances in Mind-Body Medicine, 24*(1).
- Bjorkqvist, K., Lagerspetz, K.M.J. & Kaukiainen, A. (1992) Do girls manipulate and boys fight?: Developmental trends in regard to direct and indirect aggression [Electronic version]. *Aggressive Behavior, 18*, 117-127.
- Branje, S. T., van Doorn, M., van der Valk, I., & Meeus, W. (2009). Parent-Adolescent Conflicts, Conflict Resolution Types, and Adolescent Adjustment. *Journal of Applied Developmental Psychology, 30*(2), 195-204.

- Brennan, A. R., & Arnsten, A. F. (2008, June 28). Neuronal Mechanisms Underlying Attention Deficit Hyperactivity Disorder: The Influences of Arousal on Prefrontal Cortical Function. New York Academy of Sciences
- Britt, G. C. (1995). Children's coping with everyday stressful situations. The role played by religion. *The Educational Resource Center-Digest*. doi:ED383432
- Brock, S. E., & Clinton, A. (2007). "Diagnosis of Attention-Deficit/Hyperactivity Disorder(AD/HD) in Childhood: A Review of the Literature.". *California School Psychologist*, 12(19).
- Burghy, C., Stodola, D., Ruttle, P., Molloy, E., Armstrong, J., Oler, J., & ... Birn, R. (2012). Developmental pathways to amygdala-prefrontal function and internalizing symptoms in adolescence. *Nature Neuroscience*, 15(12), 1736-1741. doi:10.1038/nn.3257
- Burnette, M. L., & Dickon Reppucci, N. (2009). Childhood Abuse and Aggression in girls: The contribution of borderline personality disorder. *Development and Psychopathology*, 21, 309-317.
- Cameron, M. T. (2011). "If not the brain, then what? A paradigm for pre-service intervention specialists that provides an understanding of neurodevelopmental disorders in children." *Journal of the Scholarship of Teaching and Learning*, 11(1), 17.
- Center for Disease Control (CDC). (2010). Increasing prevalence of parent-reported attention-deficit/hyperactivity disorder among children: United States, 2003 and 2007. *Morbidity and Mortality Weekly Report*, 59(44), 1439–1443.
- Chaplin, T. M., Gillham, J. E., & Seligman, M. E. (2009). Gender, Anxiety, and Depressive Symptoms: A Longitudinal Study of Early Adolescents. *Journal of Early Adolescence*, 29(2), 307-327.
- Conger, K. J., Stocker, C., & McGuire, S. (2009). Sibling socialization: The effects of stressful life events and experiences. *New Directions for Child and Adolescent Development*, 126, 45-59.
- Connolly, M., Quin, E., & Redding, E. (2011). Dance 4 your Life: Exploring the Health and Well-Being Implications of a Contemporary Dance Intervention for Female Adolescents. *Research in Dance Education*, 12(1), 53-66.
- Connor, D F., J D. Ford, J F. Chapman, and A Banga. "Adolescent Attention Deficit Hyperactivity Disorder in the Secure Treatment Setting." *Criminal Justice and Behavior* 39.6 (2012): 725-47. Print

- Courtney, A. (2005). Teaching Relaxation Skills in Physical Education. *Physical Education*. Retrieved April 16, 2014.
- Coyle, L. D., & Vera, E. M. (2013). Uncontrollable stress, Coping and subjective well-being in urban adolescents. *Journal of Youth Studies*, 16(3), 391-403.
- Davis, E. P., Glynn, L. M., Waffarn, F., & Sandman, C. A. (2011, February). Prenatal Maternal Stress Programs Infant Stress Regulation. *Journal of Child Psychology and Psychiatry*, 52(2).
- de Anda, D., Bradley, M., Collada, C., Dunn, L., Kubota, J., Hollister, V., & ... Wadsworth, T. (1997). A Study of Stress, Stressors, and Coping Strategies among Middle School Adolescents. *Social Work In Education*, 19(2), 87-98.
- Denham, S. A., & Burton, B. R. (2003). Social and emotional prevention and intervention programming for preschoolers. *New York: Klumer Plenum*.
- Dige, N. S., & Wik, G. (2005). Adult attention deficit hyperactivity disorder identified by neurological testing. *International Journal of Neuroscience*, 115, 169-183.
- Domalanta, D. D., Risser, W. L., Roberts, R. E., & Risser, J. M. (2003, April). Prevalence of depression and other psychiatric disorders among incarcerated youths. *Journal of American Academy of Child and Adolescent Psychiatry*, 42(4), 84-477.
- DuPaul, G. J., Eckert, T. L., & Vilaro, B. (2000, December). The effects of School-Based Interventions for Attention Deficit Hyperactivity Disorder: A Meta-Analysis 1996-2010. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39(12), 1468-1484.
- DuPaul, G. J., & Weyandt, L. L. (2006, June). School-Based Intervention for Children with Attention Deficit Hyperactivity Disorder: Effects on Academic, Social and Behavioral Functioning. *International Journal of Disability, Development of Education*, 53(2), 161-176.
- Erwin, B. A., Heimburgh, R. G., Schnier, F. R., & Liebowitz, M. R. (2003). Anger Experience and Expression in Social Anxiety Disorder: Pretreatment Profile and Predictors of Attribution and Response to Cognitive-Behavior Treatment. *Behavior Therapy*, 34, 331-350.
- Evans, G. W., & Kim, P. (2013). Childhood Poverty, Chronic Stress, Self-Regulation, and Coping. *Child Development Perspectives*, 7(1), 43-48. doi:10.1111/cdep.12013
- Finello, K. M., & Poulsen, M. (2011, July 28). Unique System of Care Issues and Challenges in Serving Children Under 3 and their Families. *American Journal of Community Psychology*, 1-13.

- Fitzsimmons, M K. "Violence and Aggression in Children and youth." *The Educational Resource Center-Digest* (1998). Print.
- Giguere, M. (2011, June 30). Social Influences on the Creative Process: An Examination of Children's Creativity and Learning in Dance. *International Journal of Education & the Arts*, 12(1.5).
- Gray, P. (2011). The Decline o Play and the Rise of Psychopathology in Children and Adolescents. *American Journal of Play*
- Goldbeck, . L., & Schmid, . K. (2003, September). Effectiveness of autogenic relaxation training on children and adolescents with behavioral and emotional problems. *Journal of Abnormal Child Psychology*, 42(9).
- Goodman, E., Huang, B., Schafer-Kalkhoff, T., & Adler, N. E. (2007). A new type of identity which influences adolescent's self rated health. *Journal of Adolescent Health*, 41, 479-487.
- Gunnar, M., & Quevedo, K. (2012, December). The Neurobiology of Stress and Development. *National Nueroscience*, 15(12), 1736-1741.
- Helgeson, J. Four simple ways to add movement in a daily lesson. *Kappa Delta Pi Record*, 47(2), 80-84.
- Hickman, G P., and I Garvey. "An analysis of academic achievement and school behavior problems as indices of program effectiveness among adolescents enrolled in a youth based mentoring program." *Journal of At-Risk Issues* 12.1 (2006): 1-9. Print.
- Hickman, G. P., Bartholomew, M., Mathwig, J., & Heinrich, R. (2008). Differential development pathways of high school dropouts and graduates. *The Journal of Educational Research*, 102(1), 3-14.
- Honig, A. S. (2002). *Secure relationships: Nurturing infant/toddler attachment in early car settings*. Washington, DC: NAEYC
- Honigsfeld, A., & Dunn, R. (2009). Learning style responsive approaches for teaching typically performing and at-risk adolescents. *Clearing House*, 82(5), 220-224.
- Jensen, E. (2000). Moving with the brain in mind. *Educational Leadership*, 58(3), 34.
- Jewitt, J. Childhood stress. *Childhood Educuation*, 73, 172-173.
- Kachin, K. E., Newman, M. G., & Pincus, A. L. (2001). An interpersonal problem approach to the division of social phobia subtypes. *Behavior Therapy*, 32, 479-501.

- Kashdan, T. B., Collins, R. L., & Elhai, J. D. (2006). Social Anxiety and Positive Outcome Expectations on Risk-Taking Behaviors. *Cognitive Therapy and Research*, 30, 749-761.
- Kraag, G., Van Breukelen, G. J., Kok, G., & Hosman, C. (2009, September). " Learn Young, Learn Fair", a Stress Management Program for Fifth and Sixth Graders: Longitudinal Results from an Experimental Study. *Journal of Child Psychology and Psychiatry*, 50(9), 1185-1195.
- Lacroix, J. (2010). *Creative Alternatives to Western Styles of Conflict Resolution: The Potential of West African Dance* (Master's thesis).
- Lamond, I. (2010). Evaluating the Impact of Dance into the Curriculum of Children Encountering Profound and Multiple Learning Difficulties. *Body, Movement and Dance in Psychotherapy: An international Journal for Theory Research and Practice*, 5(2), 141-149.
- Lane, A. M., & Lovejoy, D. J. The effects of exercise on mood changes: the moderate effect of depressed mood. *The Journal of Sports Medicine and Physical Fitness*, 41(4), 539-545.
- Latha, K. S., & Hanumanth, R. Patterns of Stress, Coping Styles and Social Supports among Adolescents. *Journal of Indian Association for Child and Adolescent Mental Health*, 3(1), 5-10.
- Laursen, B., Finkelstein, B. D., & Betts, N. T. (2001). „A developmental meta-analysis of peer conflict resolution,, *Developmental Review*, 21, pp. 423–449
- Lengel, T., & Kuckala, M. (2010). *The Kinesthetic Classroom: Teaching and learning through movement*. Thousands Oaks, CA: Corwin Press.
- Lewinsohn, P. M., Rhode, P., Klein, D. M., & Seeley, J. R. (1999). Natural course of adolescent major depressive disorder I: Continuity into young adulthood. *Journal of American Academy of Child and Adolescent Psychiatry*, 38, 56-63.
- Liberman, A., & Cahill, M. (2012). Variation in 2010-2011 Truancy Rates among District of Columbia Public Schools (DCPS) High Schools and Middle Schools (Master's thesis).
- Loeber, R., Burke, J. D., Lahey, B. B., Winters, A., & Zera, M. (2000). Oppositional defiant and conduct disorder: a review of the past 10 years, part I. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39(12), 1468-1484.
- Lohaus, . A., & Klein-Hebling, . J. (2000). Coping in childhood: A Comparative evaluation of different relaxation techniques. *Journal of Abnormal Child Psychology*, 187-211.
- Luby, J. L. (2010). Early Intervention strategies for preschool depression that focus on enhancing emotional development are currently being tested. *Current Directions in Psychological Science*, 19(2), 91-95.

- Mayeda, S. and Sanders, M. (2007) Counseling Difficult-To-Reach Adolescent Males with Substance Use Disorders: A Strength-Based Approach, Part II. *Counselor Magazine*, Vol. 9, July 2007.
- McBride, V., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011, March). Neighborhood Poverty and Adolescent Development. *Journal of Research on Adolescence*, 21(1), 114-128.
- Mitchem, K. J. (2005). Be Proactive: "Include Students with Challenging Behavior in Your Classroom. *Intervention in School and Clinic*, 40(3), 188-191.
- Moore, C., & Linder, S. M. (2012). Using Dance to Deepen Student Understanding of Geometry. *Journal of Dance Education*, 12(3), 104-108.
- National Scientific Council on the Developing Child (2004). *Young Children Develop in an Environment of Relationships: Working Paper No. 1*. Retrieved from [www.developingchild.harvard.edu](http://www.developingchild.harvard.edu)
- Nilzon, K. R., & Palmerus, K. (1997). The Influence of Familial Factors on Anxiety and Depression in Childhood and Early Adolescence. *Adolescence*, 32(128), 935-945.
- Odgers, C. L., Moretti, M. M., & Reppucci, N. D. Examining the science and practice of violence risk assessment with female adolescents. *Law and Human Behavior*, 29, 7-27.
- Orfield, G. (2004, June 1). Dropouts in America: Confronting the graduation crisis. *Harvard Education Press*.
- Peach, L. (n.d.). A study Concerning Stress among High School Students in Selected Rural Schools. In *Educational Resources Information Center*. Retrieved April 12, 2014
- Rawles, P. D. (2010). The Link between Poverty, the Proliferation of Violence and the Development of Traumatic Stress among Urban Youth in the United States to School Violence: A Trauma Informed, Social Justice Approach to School Violence. *Forum on Public Policy Online*, 2010(4).
- Redman, D. (n.d.). *The Effectiveness of Dance Movement Therapy as a Treatment for Students in a Public Alternative School with Attention Deficit Hyperactivity Disorder: A Pilot Study* (Master's thesis).
- Reynolds, E. K., Schreiber, W. M., Geisel, K., MacPherson, L., Ernst, M., & Leijuez, C. W. (2013, April). Influence of social stress on risk-taking behavior in adolescents. *Journal of Anxiety Disorders*, 27(3), 272-277.
- Ross, J. (2000). *Art and Community: Creating Knowledge through Service in Dance* (Master's thesis).

- Sanchez, Y. M., Lambert, S. F., & Cooley-Strickland, M. (2013, January). Adverse Life Events, Coping Internalizing and Externalizing Behaviors in Urban African American Youth. *Journal of Child and Family Studies*, 22(1), 38-47.
- Saville, S. M., & Swoap, R. A. (n.d.). Locus of Control and Conflict Resolution (Master's thesis).
- Savtchouk, I., & Liu, S. J. (2011, January). Remodeling of Synaptic AMPA Receptor Subtype Alters the Probability and Pattern of Action Potential Firing. *The Journal of Neuroscience*, 31(2).
- Schargel, F, and J Smink. "Strategies to help solve our school dropout problem." Eye on Education (2001). Print. Sedere, U. M. (2010). Towards a Stress Free Education: International Perspective. . Retrieved April 16, 2014
- Seeley, J., Rhode, P., Lewinsohn, P. M., & Clarke, G. (2002). Interventions for academic and behavior problems II: Prevention and remedial approaches. *National Association of School Psychologists*, 885-912.
- Shonkoff, J. & Phillips, D., (Eds.) (2000). From neurons to neighborhoods: The science of early childhood development. Washington, DC: National Research Council.
- Skoning, S. N. (2008). Movement and Dance in the Inclusive Classroom. *TEACHING Exceptional Children Plus*, 4(6).
- Shovel, E., & Shulruf, B. (2013). Who benefits from cooperative learning with movement activity? *School Psychology International*, 31(1), 58-72.
- Soulis, S., & Floridis, T. (2010). Sources of stress for Greek students with intellectual disabilities attending mainstream schools. *Support for Learning*, 25(2), 74-80. doi:10.1111/j.1467-9604.2010.01443.x
- Spiridon-Georgios, S., & Floridis, T. (2010, May). Sources of stress for Greek students with intellectual disabilities attending Mainstream Schools. *Support for Learning*, 25(2), 74-80.
- Tortora, S. (2004, May). Our Moving Bodies Tell Storie, Which Speak of Our Experiences. *Journal Zero to Three*, 24(5), 4-12.
- Tucker, C. J., McHale, S. M., & Crouter, A. C. (2003). Conflict Resolution: Links with adolescents' family relationships and individual well-being. *Journal of Family Issues*, 24, 715-736.
- Waaktaar, T., Borge, A. H., Fundingsrud, P. H., Christie, H. J., & Torgersen, S. (2004, April). The Role of Stressful Life Events in the Development of Depressive Symptoms in Adolescence-A longitudinal Community Study. *Journal of Adolescence*, 27(2), 153-163.

- Wadsworth, M. E., Raviv, T., Reinhard, C., Wolff, B., Santiago, C., & Einhorn, L. (2008). An Indirect Effects Model of the Association between Poverty and Child Functioning: The Role of Children's Poverty-Related Stress. *Journal of Loss and Trauma, 13*(2-3), 156-185.
- Wadsworth, M. E., Wolff, B., Santiago, C., & DeCarlo, M. (2008, November 1). Adolescents coping with poverty-related stress. *The Prevention Researcher*.
- Warner, L. (2008). "you're it": Thoughts on play and Learning in Schools. *Horace*.
- Wehmeyer, M. L., & Schwartz, M. (2001, February). Disproportionate Representation of Males in Special Education Services: Biology, Behavior or Bias. *Education and Treatment of Children, 24*(1), 28-45
- Wells, S. L. (2012). Moving through the Curriculum: Effect of Movement on Student Learning, Behavior and Attitude. *Rising Tide, 5*, 1-17.
- West, J. B., Otte, C., Geher, K., Johnson, J., & Mohr, D. C. (2004). Effects of Hatah Yoga and African Dance on Perceived Stress, Affect and Salivary Cortisol. *Annual of Behavior Medicine, 28*(2), 114-118.
- Wiggins, C., Fenichel, E., Mann, T., (2007). *Literature Review: Developmental Problems of Maltreated Children and Early Intervention Options for Maltreated Children*. Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.
- Woolery, A., Myers, H., Sternlieb, B., & Zelzer, L. (2004). A yoga intervention for young adults with elevated symptoms of depression. *Alternative Therapy Health Medicine, 10*, 60-63.