

Construction of a School-Based Drama Therapy Program for Students with Histories of  
Trauma and Chronic Stress

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A Research Paper  
in  
The Department  
of  
Creative Arts Therapies

Presented in Partial fulfillment of the Requirements  
for the Degree of Master of Arts  
Concordia University  
Montreal, Quebec, Canada

July, 2011

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# Concordia University

School of Graduate Studies

This is to certify that the research paper prepared

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Entitled: Construction of a School-Based Drama Therapy  
Program for Students with Histories of Trauma and Chronic Stress

and submitted in partial fulfillment of the requirements for the degree of

## **Master of Arts (Creative Arts Therapies; Drama Therapy Option)**

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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### **Abstract**

#### Construction of a School-Based Drama Therapy Program for Children with Histories of Trauma and Chronic Stress

In recent years, educators and mental health professionals have witnessed an increasing number of students struggling in school environments displaying inattentiveness, hyperaggression, and anxiety. Current treatment programs do not appear to address their needs or provide symptom relief, suggesting frequent misdiagnosis and inappropriate interventions. This paper addresses the need for new school-based treatment programs considering recent research and literature in the fields of neuropsychology, Self Regulation Therapy, and Drama Therapy. Current findings from the field of neuropsychology and Self Regulation Therapy will be explored to provide a contextual history of the development and pervasiveness of these commonly misinterpreted symptoms in childhood trauma and chronic stress. This paper will also illustrate the theoretical and clinical links between neuropsychology, Self Regulation Therapy, and Drama Therapy, placing an emphasis on Jones' Core Processes of Drama Therapy. Finally, this paper provides drama therapists with a new 16-week school-based Drama Therapy program for students aged 5 to 10 years old exhibiting symptoms of trauma and chronic stress. Each session is broken down into Session Objectives and Therapeutic Goals, Supplies, and Exercises that are clearly defined and explained.

## Acknowledgements

I would like to sincerely thank the faculty and staff of the Department of Creative Arts Therapies for their guidance and dedication. I send a special thank you to my research adviser, Bonnie Harnden, for her passion and belief in this research.

To my class, and now colleagues, I send my thanks and congratulations. It was such an honor to have worked and learned alongside such a talented and supportive group of individuals. We always have been, and always will be, survivors.

To LBPSB faculty, staff, and students, I send a sincere thank you for the opportunity to grow and learn as a drama therapist. It is within your halls and classrooms that I gained the most valuable knowledge of my training thus far.

Aaron, thank you for your generous and detailed eye. Your editing efforts and expertise were always greatly appreciated. Thanks for not only being an excellent editor, but also a supportive brother and friend.

And, of course, thank you to my family for their constant love and support in all its forms. You all keep me grounded. Much love.

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## **Chapter 1**

### **Introduction**

In the past fifteen years, vast amounts of literature and research in the field of neuroscience have provided developments in the treatment of children with histories of trauma and chronic stress (Diseth, 2005; Klorer, 2005; Lahad, Farhi, Leykin, & Kaplansky, 2010; Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; 2011; Ogden, 2003; Perry, 2007; Perry et al., 1995; Terr, 1995; Van der Kolk, 1994, 2003). Many of these developments lay groundwork and support for the great potential of healing children with histories of trauma and chronic stress through incorporating creative therapy techniques (Diseth; Klorer; Lahad, Farhi, Leykin, & Kaplansky; Levine; Levine & Kline; Melrose; Ogden; Perry; Perry et al.; Terr; Van der Kolk). Recently, creative arts therapies literature indicates potential benefits of incorporating neuropsychological principals within treatment of trauma (Klorer, 2005; Lahad, Farhi, Leykin, & Kaplansky). As these new findings are being encouraged in our field, there still exists little documentation of the neuropsychological explanations for history of trauma or chronic stress in clients. As clinicians, creative arts therapist should be aware of current discoveries and treatment advances in order to best meet the needs of clients. To address this lacking need in drama therapy literature, this paper will provide an overview of the present problems facing children with histories of trauma and chronic stress. Secondly, this paper will explore recent findings on the effects of trauma and chronic stress on the child's developing brain and body. To conclude, a theoretical link will be established between neuropsychological treatment methods and drama therapy to support the development of a new 16-session drama therapy program.

While drama therapy has been applied to work with all types of trauma, there is little research on creative arts therapies utilized with both children and children with histories of trauma and chronic stress (Bouzoukis, 2001; Cattanach, 2008; Johnson; Johnson, Lahad, & Gray, 2009). In recent years, drama therapists began incorporating theories from neuroscience and neuropsychology in their practice with adults with histories of trauma and chronic stress (Jennings, 2002; Johnson, 2000; Lahad, Farhi, Leykin, & Kaplansky; 2010; Young, 1992). Developments in neuroscience have discovered the right-hemisphere of the brain is affected after a traumatic or stressful period (Diseth, 2003; Levine, 1997; Melrose, 2006a; Ogden, 2003; Van der Kolk, 1994, 2003). This part of the brain controls verbal and language processing, indicating that children with chronic stress or trauma are more able to participate and experience the benefits of a non-verbal, body-based creative therapy (Cattanach, 2008; Diseth; Johnson, 2003; Klorer, 2005; Levine; Melrose; Ogden; Van der Kolk). Also, as many researchers and clinicians agree (Cattanach; Jennings, 2002; Levine & Kline, 2007; Melrose), dramatic play is essential for many components of healthy development lacking in children with histories of trauma or chronic stress, such as identity, independence, competency, imagination, problem solving, flexibility, and interpersonal skills.

To most effectively explore the benefits of incorporating neuroscience and theories from body-based therapies, this paper will define and discuss the relationship between neuroscience and each of Phil Jones' *Core Processes* of Drama Therapy. In his influential text, Jones (2007) expands upon the effectiveness of Drama Therapy by breaking down the modality into core processes that establish and explain its potential for healing. These fundamental principals are 1) embodiment, 2) dramatic projection, 3)

dramatherapeutic empathy and distancing, 4) interactive audience and witnessing, 5) play and the playspace, 6) role play and personification, 7) transformation, and 8) life-drama connection. These terms will be defined and incorporated with the goals of neuropsychology, resulting with the construction of a new school-based drama therapy program. This new program will be created based on the neurological and emotional needs of children with histories of trauma and chronic stress displaying problematic symptoms within their classrooms.

### **Purpose and Rationale**

The focus of this research is to investigate new literature from the field of neuroscience and neuropsychology in relationship to the consequences of trauma and chronic stress on infant and childhood brain development (Ogden, 2003; Perry, 2009; Perry et al., 1995; Schore, 2002; Van der Kolk, 1999, 2003). It will focus its influence on a recent therapeutic model employed by schools today, Self Regulation Therapy (Levine, 1997; Levine & Kline, 2007; Melrose, 2006a). These advances will be explored in terms of their relevancy to the core processes (Jones, 2007) of drama therapy in order to create a new school-based drama therapy program. This program will be designed for primary school students from the ages of 5 to 10 years old displaying symptoms of trauma and chronic stress.

In the review of the literature, it became clear there is a desperate need to address a rising problem in North American schools (Melrose; Levine; Perry). Parents, education professionals, and mental health experts working in schools today describe an alarming rise in hypervigilant, hyperaggressive, and dissociative behavior in primary school students (Harvey, 2007; Melrose; Perry; Mayes, Bagwell, & Erkulwater, 2008; Perry).

Problematic behaviors are currently addressed via ineffective intervention and treatment programs by schools, resulting in the rise of frustration of parents and professionals (Frostig & Essex, 1998; Hayling et al., 2008). Furthermore, these students are left struggling in their classrooms and leave them vulnerable to future risk behaviors (Frostig & Essex; Hayling et al.; Melrose). Extensive research into recent developments in neuroscience and neuropsychology provide explanations for the ineffective intervention programs put in place by schools and mental health professionals (Klorer, 2005; Levine; Levine & Kline; Melrose; Perry et al.; Ogden). As a review of these theories are not present in drama therapy literature, this paper will present the basic concepts to the field of drama therapy in hopes to improve our work as Drama Therapists within this population.

The aim of my research is to theoretically support and propose a new school-based drama therapy program for children with histories of trauma and chronic stress. By incorporating and considering research from neuropsychology, Self Regulation Therapy techniques, and the 9 Core Processes of Drama Therapy, this paper strives to answer the primary research question:

Considering the theoretical links between Drama Therapy's *Core Processes* (Jones, 2007), neuropsychology, and Self Regulation Therapy (Levine, 1997), how can a school-based intervention program be created for primary school children with histories and symptoms of trauma and chronic stress?

**Methodology**

As a program like this has not yet been documented in drama therapy, my research will be a historical/documentary method, surveying data and literature related to neuropsychology of trauma and chronic stress, school-based intervention programs, childhood trauma and chronic stress, Self Regulation Theory, and Drama Therapy. I will incorporate data collection techniques from Grounded Theory (GT) research methodology to generate new theory grounded in data collection from vast amounts of literature and research (Glaser & Strauss, 1967). Borrowing GT methodology allows me to incorporate the constant comparison method of data collection and data analysis, encouraging structure and rigor in my research (Glaser & Strauss). Through extensive research into current literature on relevant topics, I will apply Coding from GT for data analysis (Glaser & Strauss). Once research has been saturated with common themes, I will extract prominent themes and methods of intervention to generate a new Drama Therapy program and set of exercises.

**Validity**

To enhance the validity of this research and the drama therapy program, I will incorporate both investigator and within-methodological triangulation (Thurmond, 2001). Before my research process began, I led a drama therapy group for children in a school-based treatment program in a public primary school in the Montreal region. These children were referred to the 15-week drama therapy program for exhibiting problematic behavior and symptoms of trauma and chronic stress in their classrooms. This Drama Therapy program incorporated theories and exercises from neuropsychology, Self Regulation Therapy, and Drama Therapy. While this group's therapeutic process was not

considered as data, my own process notes and experiences were considered to enhance the efficacy and effectiveness of my current research. This established a phenomenological within-methodological triangulation, increasing validity of this research (Thurmond, 2001). In addition, the group's co-facilitators were educational professionals, teachers, and behavioral technicians with extensive knowledge and experience with the population in question. Their feedback, suggestions, and critiques of the school-based Drama Therapy intervention program influenced my current research in order to enhance the validity of my research through investigator triangulation (Thurmond, 2001).

## Chapter 2

### Review of Literature on Trauma and Chronic Stress in Students at Schools Shift in Needs of Students

Today, public education in North America is witnessing a startling and drastic shift in the needs of their students. Students' needs vary extensively, including their needs for educational support, food, behavior management, clothes, and even therapeutic intervention (Melrose, 2006a). According to current research, there is an increased identification on the part of teachers and parents with students that misbehave to be diagnosed with Attention-deficit/hyperactivity disorder (ADHD), Oppositional Defiant Disorder, or be considered to have an emotional disturbance (Melrose; Harvey, 2007; Mayes, Bagwell, & Erkulwater, 2008). In the United States, the National Institute of Mental Health (2008) found a 500% rise in diagnosis for ADHD alone between the late 1980s and 2000s. Schools are also struggling with a rise in bullying and school violence, exhibiting a trend towards stunted academic success and compromised safety in school environments (Hayling et al.; Melrose, 2006a, 2009). These emotional and behavioral issues increase risks for lower grades, detachment from school and community, low self-esteems, and leads to high rates of early drop-outs from high school and unemployment later in life (Hayling, Cook, Gresham, State, & Kern, 2008). Students displaying these behaviors and exhibiting difficulties with academics and establishing relationships with peers and teachers are placed into a special education category called *emotional disturbances* (Melrose, 2006a). These students are characterized with needs beyond what an average classroom can offer, requiring individualized education plans, emotional and behavioral intervention or treatment, one-on-one attention, and consistency (Melrose). While these needs have been met in years before, the drastic rise in children with

emotional disturbances are demanding great amounts of energy and time on the part of the education system. In essence, there are more students requiring more help than ever before in North American schools.

### **Individuals with Disabilities Act**

As outlined by the United States Department of Education's Individuals with Disabilities Education Act (Melrose, 2006a) a child who requires special education and related services to meet a variety of disabilities, impairments, and difficulties is considered a "child with a disability." When education of these children is negatively impacted by their disability, a school is legally required to formally intervene and offer help and services (Melrose). While there are currently multiple efforts put forth by the education system to meet the needs of these students with specialized programming, professional training, and medical screening, there appears to be a growing number of students who remain unaffected and unchanged (Hayling et al, 2008; Melrose, 2006a, 2009). As many students respond well and their condition in schools is improved by current models of intervention, the most challenging students baffle education professionals as there is no apparent problem, let alone solution to meet their demands (Melrose, 2006a). Left feeling helpless and frustrated at lost efforts and lost students, parents, educators, and mental health professionals must recognize this shift in the needs of this growing population of students, as traditional forms of intervention are found ineffective.

### **Need for New Interventions**

As exhibited in current research, students with emotional disturbances are not receiving adequate services within school settings (Hayling et al., 2008). Recent strategies to address these students' problems attempt to change the students' perception of the world, offer behavioral interventions with reason or insight, and prescribe medication (Melrose, 2006a). When compared to treatment outcomes from years past, these methods are found to be no more effective (Hayling et al.). It appears that traditional forms of intervention are not helping a specific population of students in schools today and new interventions need to be established to address this population of students.

### **School-Based Treatment Programs**

While schools may not be considered a traditional setting for treatment or intervention, they are potentially the only safe, structured, and familiar place students have easy access to (Frostig & Essex, 1998; Melrose, 2006a; Milot et al, 2006; Rolfsnes & Idsoe, 2011). This also allows children to receive care in an environment they already trust, an important component to any effective treatment process (Frostig & Essex). Rolfsnes and Idsoe (2011) found in their meta-analysis that school settings led to more students accessing and completing treatment and were effective when utilized by school professionals and clinicians. This research further confirms the suggestion that schools may be an ideal location for providing interventions. As a place with consistent, stable, and routine access to students, problematic and concerning symptoms may be easily seen and noticed by teachers and education staff (Cloitre et al., 2009; Frostig & Essex; Hayling et al., 2008; Rolfsnes & Idsoe). As schools are expected to help children in

distress to receive clinical services, often they are referred to community resources that they may not have access to for various reasons including lack of money, resistance, fear, denial, disorganization, and limited resources in their community (Frostig & Essex). Due to these limitations, children often do not receive adequate treatment or intervention at all, remaining in their classrooms without assistance (Frostig & Essex). Considering the benefits of a school-based treatment program and their legal commitment to students with special needs, schools are ideal locations to help students succeed not only in the classrooms, but also at home and in their future

### **Misinterpretation and Misdiagnosis of Trauma and Chronic Stress Symptoms**

Alongside the rise in recognition and diagnosis of various neurological disorders in students and need for school-based interventions, there is also a major problematic tendency in the fields of medicine, mental health, and education in misinterpreting children's behavior (Bennett, 2000; Diseth, 2005; Melrose, 2006a; Perry, Pillard, Blakley, Baker, & Vigilante, 1995). Regular trips to the principal's office, defiance, inattention, and challenging authority in the classroom are often misinterpreted as a need for behavioral intervention with consequences (Bennett; Melrose). Children are frequently diagnosed with ADHD or a behavioral disorder when adults become aware of and upset by children's symptoms in order for prompt and familiar treatment options, resulting in frequent misdiagnosis and inappropriate treatment (Perry et al.). In addition to a quick and possibly inaccurate diagnosis, schools and mental health professionals often are not conducting thorough evaluations and assessments of students' histories, leaving out an important component in determining any diagnosis or method of treatment (Bennett; Melrose). When the source of the problem and the client's history are not

considered, it is impossible to determine the best form of treatment or intervention (Bennett; Levine & Kline, 2007; Melrose). Incorporation of a proper assessment of the child's medical and family history would indicate other sources of their misbehavior and difficulties in the classroom.

Lack of success in some students from current intervention strategies and programs at their schools suggest that there is frequent misdiagnosis and inappropriate treatment occurring. Education professionals, parents, and mental health professionals share concern over the rise of misbehavior, bullying, and the trend of academic decline in this group of students, but there is evidence to suggest that there are great challenges in distinguishing hyperactivity from hypervigilance in students (Bennett, 2000; Melrose, 2006a; Glod & Teicher, 1996). Studies (Bennett; Glod & Teicher) have linked hyperactivity symptoms to histories of trauma in children, suggesting a common overlap and difficulty distinguishing between a neurological disorder and a history of trauma or chronic stress. Behavioral challenges in the classroom are often misdiagnosed as a neurological disorder when in reality, there is potential for emotional disturbance from trauma or chronic stress to be the cause (De Bellis et al., 1999; Levine, 2007; Melrose, 2009; Perry, 2007; Perry et al, 1995). Links have also been made between trauma and teacher reports of misconduct found repeatedly in literature and current qualitative research. Students with histories of trauma or chronic stress exhibit both externalizing and internalizing behavioral difficulties at school, with teachers reporting misbehavior more frequently for students with histories of trauma and chronic stress (Bennett; Cloitre, M., Stolbach, B., Herman, J., van der Kolk, B., Pynoos, R., Wang, J., Petkove, E., 2009; Hayling et al; Milot, Ethier, St-Laurent, & Provost, 2010).

This research offers explanations for why many of the current and traditional forms of behavioral and cognitive interventions are ineffective for some students as they are receiving treatment for a neurological disorder when they in fact are struggling with symptoms of trauma and chronic stress. While the symptoms often can appear the same, the origins are very different and should be intervened with accordingly. If many of these students are experiencing the effects of trauma or chronic stress, new intervention and education plans need to be implemented to help improve the success rates and quality of life for these students (Levine & Kline, 2007; Melrose, 2006a). In order to appropriately treat trauma and chronic stress in students, educators and mental health professionals need to become fully informed on the development of trauma and chronic stress on the young child in order to understand and address the range of problems (Perry).

## Chapter 3

### Review of Literature on Trauma and Chronic Stress

#### Trauma Defined

Trauma is considered to be any event, real or perceived, that is terrifying or threatening to the child and rendering the young person temporarily helpless, while chronic stress is considered to be an abnormal and alarming period of intense arousal, leading towards significant disruptions in daily functioning (Cattanach, 2008; Cloitre et al., 2009; Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; Ogden, 2003). A common misunderstanding about traumatic events is that they are major, obvious, and catastrophic (Levine; Levine & Kline). As long ago as 1945, David Levy discovered children who experienced surgeries and invasive medical procedures at a young age displayed traumatic symptoms comparable to those of veterans returning from war. This research suggests that trauma and chronic stress occurs from what many consider insignificant events in a child's life (Klorder, 2005; Levine; Perry, 2007). It is important to recognize that for many, traumatic events appear benign or routine, including surgeries, divorce, loss of parent or loved one, accidents, or illnesses to name a few (Levine; Levine & Kline; Melrose, 2006a). Levine, Kline and Melrose have created a list of possible traumatic events that can occur in a child's life, some of them quite common: fetal trauma, birth trauma, loss of parent or close family member, illness, physical injuries, abuse, witnessing violence, natural disasters, medical and dental procedures, surgery, anesthesia, and prolonged immobilization due to surgeries or abuse. In the United States alone, it is estimated that there are millions of children and youth with histories of trauma and chronic stress in educational, mental health, child protective, and

juvenile justice systems (Perry, 2007). Perhaps instances of trauma and chronic stress are more pervasive than previously thought (Klorer; Levine; Perry).

There are two types of trauma outlined by Terr (1995) and recognized by many clinicians working with childhood trauma today (Levine; Levine & Kline; Melrose). Type I trauma refers to a single traumatic or stressful event that is also referred to as *shock trauma*, recognizable when a child experiences a potentially life-threatening event that overwhelms their capacity to respond effectively (Levine; Levine & Kline; Terr). A second type of trauma, Trauma II or *developmental trauma*, refers to trauma that is the result of multiple, prolonged exposures during critical developmental periods from inadequate nurturing (Levine; Levine & Kline; Terr). Due to the scope and aim of this research, trauma and chronic stress will be used interchangeably and refer to both types of trauma, Trauma I and Trauma II.

### **Preventing Traumatization**

It is important to point out that not all children who experience a traumatic or highly stressful event become traumatized (Cohen, 1996; Gunner et al., 2006; Kirsch, Wilhelm, & Goldbeck, 2011; Levine, 1997; Melrose, 2006a; Van der Kolk, 2003). There are numerous factors that influence whether an individual will develop traumatic symptomatology (Levine). The first factor is the intensity of the event itself (Levine). Another would be the context in which the event happened in the child's life, including parenting styles and external resources such as food, shelter, and other talents that can provide support throughout the event (Cohen; Gunner et al.; Kirsch, Wilhelm, & Goldbeck; Levine; Van der Kolk). Internal resources such as a strong nervous system, psychological attitudes, and an innate action plan to address threatening situations can all

prevent becoming traumatized (Levine; Melrose). While trauma does not always occur, when it does it can seem hopeless, but there are many opportunities for repair to help children overcome (Levine; Melrose). The body has an innate healing capacity, and with the appropriate knowledge and support, schools and mental health professionals can provide children with histories of trauma and chronic stress with space and time to attain healing.

### **Risks of Misdiagnosis of Trauma and Inappropriate Treatment**

Currently in schools, many children are not receiving adequate intervention and treatment to appropriately heal their trauma and chronic stress due to misdiagnosis and a general misunderstanding surrounding trauma and chronic stress (Levine, 1997; Melrose, 2006a; Perry et al., 1995). Children with histories of trauma and chronic stress often have many risks that need to be promptly addressed, and addressed appropriately through therapeutic intervention in collaboration with educational and parental support. Without appropriate intervention and support, children with histories of trauma and chronic stress may develop further mental health issues (Cattanach, 2008; Levine, 1997; Melrose, 2006a; Young, 1992).

One of the leading researchers on trauma, Dr. Van der Kolk (1987), states that trauma can be most damaging during childhood. Terrifying experiences that leave children helpless and render them out of control have the most profound effect on the central nervous system during childhood when the child's cognitive functioning and reasoning have not fully matured to process the experience and regulate their affect (Van der Kolk). Trauma on young individuals can therefore lead to global impairment and psychopathological conditions if not addressed (Van der Kolk).

Psychopathological conditions include a variety of behaviors and disorders. Correlations between prolonged childhood trauma and adolescent and adult suicidal behavior have been suggested in research (Adams & Lenhert, 1997). There is also a postulated risk for children with histories of trauma to develop psychotic symptoms such as delusions, paranoia, and hallucinations (Arseneault et al., 2011). In addition to psychopathologies, untreated childhood trauma often results in the failure to complete high school, sexual promiscuity, drug and alcohol abuse, and future re-victimization (Cattanach; Levine; Melrose; Perry et al, 1995; Young).

## **Chapter 4**

### **Review of the Literature on Neuropsychology of Trauma and Chronic Stress New Understanding of Trauma**

In order to address the specific needs of the students with histories of chronic stress and trauma and to prevent risks of future psychopathologies, schools, educators, parents, and mental health professionals need to develop a new understanding of trauma, its impacts on children, and new interventions strategies. It is not surprising that childhood trauma is often misunderstood in schools and at homes as more extensive research in childhood trauma has only been developed in the past 15 years (Bennett, 2000; Levine, 1997; Melrose, 2006a). While there are many disagreements regarding issues pertaining to the best method of diagnosis and treatment of childhood trauma, current research considers the effects of trauma psychologically, as well as physiologically (Bennett; Bremner et al., 1992; Cloitre et al., 2009; Diseth, 2005; Johnson, 1987, 2000; Kirsch, Wilhelm, & Goldbeck, 2011; Lahad, Farhi, Leykin, & Kaplansky, 2010; Levine; Melrose; Ogden, 2003; Orr, Pitman, Lasko, & Herz, 1994; Perry, 2007; Perry et al., 1995; Van der Kolk, 1987, 1994, 2003; Waller et al., 2001; Young, 1992). When considering the physiological effects of trauma and chronic stress, one must consider the neurological development of the brain (Levine; Levine & Kline; Melrose; Ogden; Van der Kolk).

#### **Child Brain Development**

In the past 30 years, findings in neurobiology began to inform and influence the way in which mental health, medical, and educational professionals work with childhood trauma (Kirsch, Wilhelm, & Goldbeck, 2011; Perry, 2007). New research indicates that early-life experiences significantly impact the development of the child (Diseth, 2005;

Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; Perry, 2007; Perry et al., 1995). The first two years of life are most influential concerning brain development based on external stimuli and quality of environment and care-giving (Melrose; Perry; Perry et al.). It is within this critical period of brain development that neurological patterns are established that influence the infant's feelings towards others and their behaviors as they grow into adults (Perry). Before exploring what happens to brain structures in situations of traumatic or chronic stress exposure, it is helpful to understand normal and healthy brain development. It is through a more thorough understanding of brain development that mental health professionals may provide more reliable and effective care for this population.

### **Healthy Brain Development**

The young human brain in its first years after birth is dependent on both genetic information and external, environmental stimulation from its caregiver to develop (Schore, 2002). During the first 2 years of development, there is a large growth-spurt in the brain and the creation of neurological patterns and circuitry, often referred to as neuroplasticity (Diseth, 2005; Levine, 1997; Levine & Kline, 2007; Perry, 2009; Perry et al., 1995; Melrose, 2006a; Schore). Neuroplasticity is the brain's ability to adapt and shift its structure in response to its environmental experiences (Diseth). At birth, there are around 100 billion neurons in the brain, not all of which are immediately used and functioning (Diseth; Levine, Levine & Kline; Perry et al.; Melrose; Schore). As the brain develops based on genetics and experience, those neurons that are not used become disabled while stimulated neurons develop and thrive establishing neuropathways (Diseth; Perry et al; Schore). When these pathways are stimulated repeatedly, it

establishes a pattern that if active enough, becomes a permanent system (Diseth; Perry et al.; Schore). The child's brain development is use-dependent, meaning those neurons, pathways, and systems that are activated most frequently can potentially become permanent and the dominant way of responding and engaging with external and internal stimulus (Perry et al.). This phenomenon results in *sensitization*, when repetitive activation of the same neural pathways becomes the dominant method of responding (Perry et al.). For example, when a child is in an environment where they are spoken to often, the neural pathway responsible for speech and language is frequently activated and a capacity for speech and language develops (Klorer, 2005). Conversely, if a child's speech and language neural pathway is not engaged frequently during important developmental stages, the speech and language will develop at a slower rate and holds the potential for speech and language difficulties later in life (Klorer; Perry et al.). This research indicates that development of the brain is experience-dependent and their external stimulus shapes not only their brain development, but influences the manner in which individuals respond and interact to their environment.

### **Effects of Trauma on Brain Development**

Research also shows that life experiences in early childhood, both positive and negative, are filtered by our senses and influence the development of our brain systems (Diseth, 2005; James, Forrester & Kyongok, 2005; Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; Perry, 2009; Perry et al., 1995). When looking at the process of normal and healthy neural development in the brain of infants and children, it is easy to see how negative, chronically stressful, or traumatic experiences maintain the potential for a large impact. Neural pathways associated with traumatic experiences become sensitized due to

frequent exposure to stressful, traumatic, or neglectful environments and parenting (Diseth; Perry et al.). Once the pathway is sensitized, a perceived less intense external or internal stimulus from minor stressors can activate a full-blown trauma response (Diseth; Perry; Perry et al.). For example, a child with a sensitized neural pathway associated with trauma could experience the symptoms of a trauma response from seemingly benign stimulus such as clapping, yelling, or being touched.

### **Regions of the Brain Affected by Trauma and Chronic Stress**

Not only are patterns of neuropathways influenced by traumatic or stressful experiences during important developmental periods, but the release and frequency of neurotransmitters are also affected (Perry et al., 1995). All areas of the brain respond to chemical changes in response to external signals (Diseth, 2005; Perry et al.). In particular, there are three regions of the brain directly affected by trauma and chronic stress: the brainstem, the limbic brain, and the neocortex (Diseth; Melrose, 2006a; Perry, 2009; Perry et al., 1995; Schore, 2002). The neocortex is known as the cognitive brain and is the dominant area of the brain used within education as it is responsible for executive functioning, such as language, reasoning, planning, and impulse control (Melrose; Perry; Perry et al.; Schore). The second region is the limbic brain or the midbrain and is responsible for the emotional world and attachment (Melrose; Perry; Perry et al.; Schore). An important structure in trauma responses known as the amygdala is housed in the limbic brain (Melrose; Perry; Perry et al.; Schore). And the most important region of the brain when considering trauma is the reptilian brain or the brainstem (Levine, 1997; Melrose). This part of the brain is the oldest and shared with all animals, regulating heart rate, blood pressure, and arousal states such as the fear

responses of fight, flight, or freeze (Melrose; Perry; Perry et al.; Schore). When dealing with children with histories of trauma or chronic stress, research indicates we are often dealing with a child who is responding and behaving from their reptilian brain (Levine; Melrose; Perry; Perry et al.). As many mental health professionals and educators attempt to conduct treatment with the neocortex or limbic brain, this research supports intervention that deal directly with the reptilian brain, or the body.

### **Healthy Self-Regulation Through Brain Development**

At birth, the infant is born without a fully developed brain (Diseth, 2005; Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; Perry, 2009; Perry et al., 1995; Schore, 2002). Only the reptilian brain is developed and the amygdala is in the process of development (Melrose). Because the neocortex is not fully developed in the infant brain, the infant is entirely dependent upon its caregivers to provide emotional regulation (Melrose). In healthy development, the brain receives positive stimulation that aids in the creation of neural pathways associated with the development of the neocortex, more specifically the cingulate and orbito-frontal cortex which aid in the development of independent self-regulation (Melrose). With healthy stimulation and appropriate neuropathways instilled, the child becomes capable of independent self-regulation. In the classroom, a child capable of self-regulation would be able to calm him or herself down after becoming emotionally or physically aroused.

### **Overactive Fear Response**

If, however, the child encounters a traumatic or stressful environment while the brain is developing and neural pathways associated with trauma responses are strengthened and imprinted, the brain is negatively impacted (Diseth, 2005; Levine, 1997;

Levine & Kline, 2007; Melrose, 2006a; Perry, 2009; Perry et al., 1995; Schore, 2002). When these traumatic neural pathways become sensitized and benign stimuli create a trauma response, the amygdala in the limbic region of the brain, concerned with affect, becomes overwhelmed (Diseth; Perry; Levine; Melrose). The amygdala is constantly responding to feelings of fear or being threatened, further instilling this neural pathway development and preventing healthy development of the cingulate and orbito-frontal cortex, reducing the infant's capacity to self-regulate (Diseth; Levine; Melrose).

Therefore, children with an overactive and sensitized neural pathway associated with the amygdala, enter into a fear response over less intense stimulus and have not developed the necessary regions of the brain in order for self-regulation. The result is a child who becomes easily threatened, fearful, and upset in response to perceived threat and unable to control themselves effectively. These are the children seen frequently misbehaving in classrooms, often misinterpreting their inability to self-regulate as oppositional behavior or hyperactivity. Being aware of current neuropsychological finding and brain development, teachers, parents, and mental health professionals can help avoid the risks of misdiagnosis and offer appropriate support for these children.

### **An Imbalanced Nervous System**

When the amygdala is in its fear response, it sends a signal to the Autonomic Nervous System to prepare the body for survival (Diseth, 2005; Levine, 1997; Melrose, 2006a; Perry, 2009; Perry et al., 1995; Schore, 2002). There are two branches of the Autonomic Nervous System, the sympathetic nervous system and the parasympathetic nervous system (Diseth; Levine; Melrose). The parasympathetic responses de-escalate the body, offering it relaxation (Diseth; Levine; Melrose). When considering trauma, we

will focus on the functions of the sympathetic nervous system in response to perceived threat. The sympathetic nervous system responds to activation by providing the body all it needs for action: produces adrenaline and nonadrenaline, increasing blood pressure, heart rate, increased sweating, and engages muscles (Melrose). As the sympathetic nervous system receives the signal for danger and threat from the amygdala in the limbic brain, the reptilian brain takes control (Levine; Melrose). Within milliseconds, the body releases catecholamines, increased cortisol from the Hypothalamic-Pituitary-Adrenal axis increases blood glucose, and adrenaline and noradrenalin are produced by the sympathetic nervous system increasing the heart rate, breathing rate, blood pressure, perspiration, engaging muscles, narrows eyes, and increases sensitivity to sensory cues all in order to defend survival (Diseth; Kirsch, Wilhelm, & Goldbeck, 2011; Leeds, 2003; Levine; Melrose; Van der Kolk, 2003).

When this stimulation of fear initiated in the limbic brain is repeated and prolonged, it becomes sensitized and the amygdala fails to stop sending these signals in order to initiate the survival response in the body (Levine, 1997; Melrose, 2006a; Perry, 2007; Perry et al, 1995; Van der Kolk, 2003). For young children who are traumatized, this means their neural development has instilled in them a persistent state of fear, defensiveness, and concerned for their survival and potential threats (Levine; Melrose). As this neural pathway associated with fear becomes instilled and sensitized, the baseline levels of arousal and anxiety elevates (Diseth; Levine; Melrose; Perry; Perry et al.; Van der Kolk).

If the body must constantly respond to tracking perceived threats, then there is little opportunity for the parasympathetic nervous system to activate to sooth and calm

the body and re-establish neutrality (Diseth; Levine; Melrose). As indicated by several studies, once the child's baseline level of arousal has become elevated, they can easily be overwhelmed by the demands of their environment, becoming highly aroused by what could be considered a minor stressor (Golier & Yehuda, 1998; Levine; Melrose; Orr, Pitman, Lasko, & Herz, 1994; Perry et al.). Any sensation of arousal, positive or negative, can be interpreted by the child as a threat and triggers an alarm response by the amygdala, without ability to appropriately self-regulate (Levine; Melrose; Perry et al.).

Taking this information into consideration, teachers, parents, and mental health professionals find themselves working with children in a persistent state of elevated fear and hypervigilance. They are constantly seeking out potential dangers and threats, frequently behaving with impulses from their reptilian brain. It is not a desire to challenge authority or a neurological disorder preventing them from sitting in their seat, it is their need to defend their survival.

### **Fight, Flight, and Freeze**

The whole body is affected by the fear response when perceiving threat. Enormous physiological changes occur and the brain automatically releases powerful stress hormones and biochemicals, such as adrenaline, noradrenalin, and cortisol (Levine, 1997; Melrose, 2006a; Perry et al, 1995). These primal energies come into affect to energize the body in the physiological reactions to defend themselves from perceived or actual threat (Levine; Melrose; Perry et al.). These chemicals mobilize the body to deal with the threat in order to ensure survival. While there are two well-known physiological threat responses, fight and flight, there is a lesser-known response that is integral to the development of trauma (Levine; Melrose; Perry et al.). Fight and flight are both

responses that mobilize the body in response to threat and burn up these powerful biochemicals the body produces, but there are instances when the body must be or chooses to be immobile (Levine; Melrose; Perry et al.).

### **The Freeze Response**

The freeze response, or the immobile response as it is sometimes referred as, is a physiological response to threat that nature developed for two reasons: as last chance survival strategy and to numb the body so not to feel pain (Levine; Melrose; Perry et al.). Sometimes there is no way to outrun or overpower an oncoming threat and the individual must resort to freeze as their best chance at survival (Levine).

### **Children and the Freeze Response**

For children, however, fight and flight are less likely options in the face of traumatic threats because of their dependency on others (Perry et al.). The most adaptive and developmentally appropriate response for the infant is the freeze response, as it allows for better sound localization, such as crying, and the lack of movement can serve as a sort of camouflage (Levine, 1997; Perry et al.). Unfortunately, for many children, this response is not a choice, but forced upon them due to their physical limitations in size and strength (Perry et al.). This leaves the child feeling helpless, hopeless, and victimized (Melrose). Feelings of helplessness and victimization are common in children with histories of trauma and chronic stress, as they quickly resort to failure or doubt themselves. Often, they do not attempt to try for success, appearing lazy or suffering from a learning disability (Levine).

### **Freeze Response and Biochemical Damage**

In addition, this immobile state does not burn up and use the large quantities of powerful biochemicals coursing through the body to aid in defending survival (Levine; Melrose; Perry et al.). Without the appropriate usage of these biochemicals, they remain in the body for long periods of time and can cause further permanent damage to the automatic nervous system, further deregulating bodily functions and development (Diseth, 2005; Levine; Melrose; Perry et al.). One such study found cortisol levels in children and adolescents exhibiting symptoms of trauma were higher for several years after a traumatic event (Kirsch, Wilhelm, & Goldbeck, 2011). This specific biochemical, cortisol, is necessary in the response to stress, but prolonged high levels of cortisol is harmful in early life and detrimental to brain development as it causes reduction of cell migration and myelination, atrophy of dendrites, and early death of neurons (Diseth).

Children with histories of trauma have likely not had the opportunity to release these harmful biochemicals and need to be guided through a supportive therapeutic process of releasing these energies (Diseth; Levine; Melrose; Perry et al.). Through studying animals and children who have experienced traumatic events, it is evident that burning up and using these biochemicals decreases the risk of developing trauma symptoms and offer emotional relief (Levine; Melrose; Terr, 1995).

## **Chapter 5**

### **Symptoms of Trauma and Chronic Stress in Children**

#### **Development of Trauma and Chronic Stress Symptoms**

When these energies do not get used up in the fear responses of fight or flight, the body remains in this highly activated state and will permanently alter how an individual deals with its environment and how it copes with acute stress on a daily basis (Levine, 1997; Melrose, 2006a; Van der Kolk, 1994). A human's body cannot maintain these elevated levels of arousal and anxiety for long and takes protective measures to find and establish equilibrium (Levine; Melrose). To address these high levels of arousal, the body adapts a series of symptoms to bind and organize the energy that are evidenced by others as the symptoms of trauma and chronic stress (Levine; Melrose; Van der Kolk). Symptoms of trauma and chronic stress are important to recognize as they are often misinterpreted and become the defining factors of misdiagnosis.

#### **Symptoms of Trauma and Chronic Stress**

All of these symptoms disrupt the individual's quality of life. More importantly, as young students, these symptoms explain why it is virtually impossible to achieve success, grow, and thrive in a structured learning environment. The symptoms can, but do not always, include hypervigilance, intrusive memory, extreme sensitivity to sound, hyperactivity, exaggerated emotional and startle response, nightmares and difficulty sleeping, mood swings, reduced ability to deal with stress, panic attacks, spiciness, avoidance behaviors, frequent crying, forgetfulness, inability to love, and fear of dying (Levine; Melrose). Not all of these symptoms present themselves in every child, but often several will occur (Levine; Melrose). Frequently, traumatized students are described as appearing shut down, and exhibit a cycle of behaviors, numbing and

unresponsive punctuated by hyperaroused response to a variety of perceived threatening external stimuli (Levine; Melrose; Perry et al., 1995; Van der Kolk). These two patterns of responding are referred to as the overaroused-looking pattern and the underaroused-looking pattern (Levine; Melrose; Perry et al.).

### **Overaroused-Looking Pattern**

The overaroused-looking pattern appears as a student that is hyperaggressive, highly irritable, and who has lost control of their affect and behavior (Levine, 1997; Melrose, 2006a; Perry et al., 1995). Physical descriptions indicate an increased heartbeat and breathing rate, agitation and fidgeting in their seat, tension, and perhaps anxiety attacks that occur from benign stimulus (Levine). This state occurs from the body summoning the rampant and potent biochemicals in the body to mobilize against the potential threat (Levine; Van der Kolk, 1994). This explains why a child in an overaroused-looking pattern seems to constantly seek out fights, intimidates others, is suspicious, and frequently blames others (Melrose). The student in this highly aroused state is constantly perceiving threats and defending itself, even when no threat is present or can be found (Levine; Melrose). It channels the excess biochemical energy into the head, neck, and eyes to orient to its surroundings and searches for potential threats, diminishing its capacity to learn and experience joy, curiosity, and pleasure (Levine; Melrose; Van der Kolk). This student creates many problems and disruptions in the classroom, making it difficult for teachers and other students to have and provide a successful learning environment for all.

### **Self Regulation in Children with Histories of Trauma and Chronic Stress**

Accompanying this pattern is a diminished ability for self and affect regulation (Melrose, 2006a; Levine, 1997; Van der Kolk et al., 1999). As infants are not born with the neocortex developed, they are dependent on their caregiver to regulate everyday stress (Van der Kolk). As indicated by a substantial body of research, if during development throughout infancy and childhood the brain creates sensitized associations with traumatic arousal, then the neocortex does not receive proper stimulation to develop appropriate self-regulation by the time the child enters school (Adam-Tucker, 1982; Levine; Melrose; Saxe et al., 1994; Van der Kolk). As these students have a low tolerance level for arousal and become more easily aroused at more minor stimulus, they become quickly upset and unable to appropriately regulate their behaviors as this escalation occurs at a non-cognitive level (Melrose; Van der Kolk, 1994). This leads to obvious problems in schools and in the classroom as they child may not be able to manage their own behaviors, follow directions, or manage the intensity of their responses resulting in frequent intervention and disciplinary actions (Levine; Melrose; Van der Kolk, 1994; Van der Kolk, 1996). Rather than disciplinary actions or behavioral methods of intervention, students should be provided with scaffolding and support to encourage self regulation and prevent high levels of arousal.

### **Underaroused-Looking Pattern of Trauma and Chronic Stress**

While at some moments these students are hyperaroused and hypervigilant, causing great disturbances in their classrooms and on the playground, at some points they appear to live outside their own body, appearing shut down, spacey, and withdrawn (Levine; Melrose; Perry et al, 1995). This presentation is referred to as the underaroused-

looking pattern of trauma in children (Levine; Melrose; Perry et al.). Their attitude indicates they have given up, refuse to try, are bored, and disinterested (Levine & Kline, 2007; Melrose). Children with these symptoms have dissociated, attending to their internal world to the exclusion of the external (Levine & Kline; Melrose).

### **Dissociation**

While dissociation is a controversial topic in psychology, there is evidence and research indicating a strong relationship between trauma and dissociative problems where the individual does not process their somatic experiences appropriately (Bremner et al., 1992; Diseth, 2005; Holen, 1993; Spiegel, 1994; Waller et al, 2001). Dissociation from the body occurs initially when an intense traumatic event overwhelms the child's capacity to process the experience (Diseth). Dissociation is viewed as both a defensive and adaptive to help the child endure the traumatic events (Diseth; Waller et al.). After the initial traumatic experience, the biochemicals create a neurological system that cannot tolerate high levels of stress and arousal and therefore many will adopt dissociation in the face of high levels of arousal and stressful life events (Diseth; Levine; Young).

When a child begins to feel any arousal, positive or negative, they will sometimes choose to dissociate, or freeze, in order to avoid uncomfortable traumatic images or sensations (Levine; Melrose). This numbing and freezing can have many consequences. Often, children lose many somatic manifestations such as felt sense, loss of motor control, alterations of vision, hearing, taste, smell, and a general inability to experience positive sensations and feelings in the body (Diseth; Levine; Melrose; Young). It becomes even more problematic at school, interrupting their daily lives, interpersonal relationships, and potential for success (Levine; Melrose). Often in the face of feelings of

anxiety, threatened, being afraid, or being confronted, these children will freeze (Melrose). While in their immobile, dissociated, and frozen states, the left hemisphere of the brain becomes less involved as the right hemisphere of the brain takes control (Perry et al, 1995). The left hemisphere is involved in verbal and language processing, indicating that these students are not as capable as an average student to respond to and follow verbal commands and cues (Levine; Melrose). Authority figures may interpret this immobility and spaciness as defiance and oppositional behavior, further reinforcing their heightened anxiety and arousal levels (Melrose).

### **Manifestation of Problematic Behavior in Schools**

These students also possess symptoms such as forgetfulness, inability to pay attention, and chronic victimization and helplessness (Bremner, Krystal, Charney & Southwick, 1996; Cloitre et al, 2009; Diseth, 2005; Levine, 1997; Melrose, 2006a; Perry et al., 1995; Yang & Clum, 2000). These symptoms further support misdiagnosis of ADHD, Oppositional Defiance Disorder, and other emotional and behavior disorders.

Looking at recent studies and the effects biochemicals have on the brain and its functioning are important in understanding how to intervene and help effectively. Studies have found these students continue exhibiting difficulties focusing in the classroom, due to their high levels of arousal (Cloitre et al.; Levine; 1997; Melrose). The ever-aroused amygdala causes the brain to screen incoming data, depending on whether or not the information is important for survival (Levine; Melrose). As the brain's primary function is for survival, math, history, and languages are often not regarded as necessary information to the highly aroused brain, creating a student that appears to choose to not pay attention out of defiance (Levine; Melrose; Perry et al.).

Also, research found that high states of arousal affect the functioning of the hippocampus, part of the brain that is responsible for memory (Bremner, Krystal, Charney & Southwick; Yang & Clum). These students have lower hippocampal volume due to irregular brain development and high levels of cortisol due to stress and trauma, therefore exhibiting marked difficulty in memory (Bremner, Krystal, Charney & Southwick; Diseth, 2005). These students result in failing to remember lists, requests, and assignments that can be mistaken for acts of opposition, disinterest, laziness, and possible learning disabilities (Levine; Melrose).

## **Chapter 6**

### **Review of the Literature on School-Based Interventions for Children with Histories of Trauma and Chronic Stress**

#### **Incorporating Neuropsychology into School-Based Interventions**

In an attempt to help these students achieve mastery and success, schools offer many intervention strategies and programs. With new information about histories of trauma and chronic stress from the fields of neuroscience and neuropsychology, schools and mental health professionals can identify what interventions can and cannot help these students.

#### **Current Interventions**

Currently, as explored earlier, many of the interventions offered today in schools are not helping a growing number of students. After exploring trauma's effect on brain development and the body, many of the current interventions used today could be viewed as ineffective and destructive (Bouzoukis, 2001; Levine, 1997; Levine & Kline, 2007; Melrose, 2006a; Perry, 2009; Perry et al., 1995; Van der Kolk, 1994).

#### **Cognitive-Based Interventions**

We are a cognitive-focused society, valuing rational, cognitive, and academic minds, and therefore this is the mode we as a society are most comfortable intervening with (Melrose). Most of the interventions in schools today integrate this idea that the cognitive mind is the most powerful part of the human body and apply it to interventions, through conditioning, behavior modification, anger management, and verbal counsel (Levine; Melrose; Perry).

As discussed previously, the rational, cognitive neocortex region of the brain is underdeveloped in most children as they enter school, even more so in children with

histories of trauma and chronic stress. As the child experiences high states of arousal, its body becomes governed by the brain stem, overriding their cognitive, rational brain (Levine; Melrose). Reasoning and verbal counsel deal directly with the cognitive brain ineffectively as the neocortex is deactivated while students are highly aroused (Levine; Melrose; Perry). This leads to incredible frustration on the part of educators, parents, and mental health professionals as they continue to ask students why they behave inappropriately, ask them to stop their behavior, and ask them to think about what they have just done (Melrose).

### **Power Struggles**

These students are not in a state of mind to be able to stop and think about anything, they are focused on perceiving threats and on defending survival. This can lead to further power struggles as teachers, parents, and mental health professionals view these children as defying their authority, causing yelling, screaming, and punitive punishments (Levine; Melrose). Talking to a student while highly aroused can be counteractive and harmful, as loud noises, threats, and aggressive verbal cues heighten their perceived threats, increase anxiety, and more intense behavioral responses that leave them in higher states of arousal for longer (Levine; Melrose; Perry et al.). Yelling and loud noises could potentially quiet these students down, but there is the possibility that these students are not choosing to cooperate, but are in an immobile, frozen threat response and have dissociated, leaving the student vacant and lost in the classroom (Melrose).

### **Anger Management and Social Skills Training**

Students will often become aggressive and misbehave during this cycle of arousal and punishment, and will be referred to anger management and social skills training (Melrose). Mental health professionals and educators attempt to rationalize and teach these children acronyms and helpful tips to employ when they become upset or aroused, but as their language processing of the brain is underdeveloped and not engaged during arousal, it is difficult if not impossible for these students to engage their rational mind while highly aroused (Melrose).

As students continue to fail, disappoint, and frustrate parents, educators, mental health professionals, and themselves, their sense of self-worth declines and feelings of victimization and helplessness increase (Levine & Melrose). These students desire to achieve, and while they can be taught and told and know better, within the patterns of trauma, they simply cannot do better (Levine; Melrose). It is up to educators and mental health professionals to gain a new understanding of the causes and effects of trauma and develop new intervention models and a deeper understanding in order to best help these children.

### **Perpetual Clients and Victims**

Often these students with histories of trauma and chronic stress become perpetual victims and therapy clients for the rest of their life (Levine, 1997). We see this in schools and in the mental health field as children cyclically enter treatments or interventions, return to class and experience the same behavior (Levine; Melrose, 2006a). In today's schools, students' problems are mainly viewed as purely psychological and therefore, intervened with cognitive, verbal, and psychologically based treatment programs (Levine;

Melrose; Perry, 2007). While psychological intervention is necessary in many cases, the body is ignored in many cases of care. Current interventions do not address the full range of symptoms, including affect regulation, dissociation, and somatization, and often only attempt to stop problematic behaviors such as aggression and hyperactivity (Levine; Melrose; Van der Kolk; 1994). It is time that schools and mental health professionals recognize that treatment and intervention can be enhanced by the current neuroscience and neurodevelopment research to explore new possibilities in creative and artistic interventions (Klorer, 2005; Levine; Melrose; Ogden, 2003; Perry, 2007).

### **Introducing the Body into Treatment**

Humans, and particularly children, are more than minds. There is also a body present. For children, their verbal and cognitive capacity is diminished due to development, and often the body is more effective in expression than verbal communication (Bouzoukis, 2001; Cattanach, 2008; James, Forrester, & Kyongok, 2005; Klorer, 2005; Levine, 1997; Melrose, 2006a; Ogden, 2003; Perry, 2007; Van der Kolk et al., 1999). All of life is experienced within the body, including trauma and chronic stress, and healing can be found in working with the body in treatment (Diseth, 2005; Klorer; Levine; Ogden; Perry; Van der Kolk et al.). In her research on children and adults with traumatic histories of sexual abuse, Young (1992) found that the client might abandon the body after it has been affected by trauma or chronic stress and long-term effects, such as dissociation and somatic disturbance, need a body-based treatment method.

### **Discharging Biochemicals through Sensory Awareness**

When the body is included in the treatment process, physiological resources are aroused to help rid the nervous system of excess energy in order for the child to heal their

trauma and become more aware and in control of their impulses (Levine; Melrose; Ogden; Van der Kolk et al.; Vaughan, 2007). Research indicates that psychotherapy clients report significant increases in symptom reduction through the introduction of sensory awareness into their therapeutic process (Gendlin, 1978). A psychophysiological approach that understands the roots of the symptoms recognizes the need to balance out the nervous system while building supportive resources can be an effective method to treat trauma and chronic stress in young students (Diseth; Klorer; Levine; Melrose; Ogden; Perry; Van der Kolk et al.). Through mindful awareness of felt sensations in the body, practicing, and psychoeducational tools to develop a somatic sense of self in clients, body-based therapies helps the client learn to tend to their own bodily sensations and thoughts in order to accurately and effectively regulate behavior and affect (Levine; Melrose; Ogden).

## **Chapter 7**

### **Review of the Literature on Self Regulation Therapy**

#### **Introduction to “Hope and Healing” Workbook**

Many practitioners, including Dr. Regalena Melrose, saw this need within the school environment for creative body-based interventions and awareness. She developed a twenty-session program for groups of elementary students with histories of trauma and chronic stress who experience difficulties in their classrooms (Melrose, 2006b). Her program is theoretically based on a body-based intervention method known as Self Regulation Therapy in order to offer children an internal body sensation vocabulary, enhance awareness to their internal sensations, and establish positive resources in order to develop a more positive self-concept (Melrose).

#### **Self Regulation Therapy**

Self Regulation Therapy is a newer body-based therapy method based on neuropsychology principals of trauma and chronic stress (Levine, 1997; Melrose, 2006a). At this point, it has not been subject to rigorous scientific research, but validity is supported by clinical case examples where clients reported symptom relief (Levine). Founded on extensive research and literature on the effects of inescapable stress on the threat response of other species, Self Regulation Therapy deliberately stimulates the nervous system in order to attain a small arousal and guiding the client through their felt senses to gently discharge bound up energy (Levine).

## **Humans versus Animals Dealing with Trauma and Chronic Stress**

This research is based on the fact that reptilian brains of animals and humans are incredibly similar, with nearly an identical nervous system (Levine). Animals avoid traumatization in the face of life-threatening circumstances due to their ability to discharge the bound energy of the biochemicals released during their frozen response, as they slowly shake and shiver once safe (Levine; Melrose, 2006a). During this biochemical release, the body orchestrates its own healing, allowing dangerous biochemicals to be expelled from the body and avoid neurological damage and the development of trauma symptoms (Levine; Melrose). Humans, however, in the face of danger often do not allow their body to heal itself through trembling or shaking, as they are often influenced by their limbic brain and societal pressure to appear strong and resilient and rationalize with themselves that they are fine (Levine; Melrose).

### **Felt Senses**

The goal in Self Regulation Therapy is to discover and bring awareness to dissociated fragments of the self through awareness of *felt senses* and to re-integrate these portions to enhance self-regulation of emotional and behavioral responses when they arise (Levine; Melrose; Ogden, 2003; Van der Kolk, 1994). Felt senses are defined as the “medium through which we experience the totality of sensation” (Levine, p. 68). These include physical senses of sight, sound, smell, touch, taste, and also include internal awareness of images and feelings (Levine; Melrose). Felt senses are the tools used to mobilize the biochemical energies bound in the symptoms of trauma, encouraging the individual to become aware of and track these internal sensations deep within their body

as they oscillate between low and high levels of arousal throughout the session (Levine; Melrose; Ogden).

### **Healing through Awareness of Felt Sense**

As the individual becomes attuned with their internal felt senses and tracks the ebbs and flows of arousal, they begin to trust their body's capacity to regulate itself (Levine, 1997; Melrose, 2006). As clients track their felt senses, they may begin to tolerate various levels of arousal they previously could not (Levine; Melrose; Ogden, 2003). Awareness of the felt senses introduces discharging of the biochemicals, healing the trauma (Levine). Exploring felt senses develops and strengthens helpful neural pathways in the brain that had been abandoned during the sensitization of traumatic responding (Levine; Melrose; Van der Kolk). The therapist provides exercises and support of stable, slow experiencing of arousal and discharge, helping to re-introduce the individual with positive experiences of arousal and felt sense (Levine). Eventually, through enhanced awareness, individuals become more capable of regulating and tolerating daily stresses and events, appropriately adapting and responding to their environment.

Establishing trust in their body again, individuals become more able to tolerate higher levels of arousal and begin to experience more positive and empowering sensations and feelings (Levine; Melrose; Ogden). The energy in the body unbinds, allowing for free-flowing energy that encourages creativity, coordination, balance, memory, and allows for greater control over impulses and affect (Levine; Melrose). Individual who had identified with the victim, experienced perpetual fear and danger, and

often faced failure soon begins to experience the self in a whole new way, feeling strong, vital, and capable again (Levine; Melrose).

### **Building Resources and Building Vocabulary of Internal Sensations**

There are two main goals in *Hope and Healing* attained through a series of activities over twenty weeks with close attention placed on the children's experience of sensations within their bodies (Melrose 2006a, 2006b, 2011). The first goal is to build resources deemed important and necessary for the treatment and reversal of trauma and chronic stress (Melrose, 2006a, 2006b, 2011). Resources are internal and external people, places, objects, activities, or ideas that contribute to the child's health, safety, comfort, balance, and relaxation (Melrose, 2006a). There are internal resources such as feeling competent, the ability to self-regulate, and a stable and balanced nervous system (Levine, 1997; Melrose, 2006a). External resources include being in calming natural environments, contact with animals, surrounding oneself with safe and caring adults and friends, and participating in activities that build confidence, where success and mastery are experienced (Levine; Melrose). These resources should build a strong sense of community, enhance sensory awareness, establish a sense of confidence and competency, and establish safety within the body and in their environment (Melrose, 2006a, 2006b, 2011). The second goal is to build these resources through learning the language of sensations (Melrose, 2006a, 2006b, 2011).

## **Chapter 8**

### **Establishing the Theoretical Link Between Drama Therapy's Core Processes and Self Regulation Therapy**

#### **Jones' 'Core Processes' of Drama Therapy**

Drama therapy's activities inherently establish a connection between the client's inner world, including their bodily sensations (Jones, 2007). As a creative body-based therapy, drama therapy may easily incorporate Self Regulation Therapy's goals and techniques to enhance the treatment of children with trauma and chronic stress (Levine & Kline, 2007; R. Melrose, personal communication, February 15, 2011; Vaughan, 2007). As drama therapy is the "involvement in drama with a healing intention" (Jones, 2007, 8), introducing building resources and establishing a language of bodily sensations occurs naturally through a close examination of the core processes of drama therapy. Core processes are fundamental processes found within all drama therapy (Jones). Their elements describe and define how drama therapy techniques and methods are effective (Jones). Each of the core processes will be explored in depth and described in terms of building resources and establishing a language of bodily sensations in order to provide the theoretical basis for a school-based drama therapy program for children with histories of trauma and chronic stress.

#### **Embodiment**

The most prominent of the core processes in this technique is embodiment. Drama therapy is concerned with the way in which a client relates to their body and how they develop their relationship with their body through embodied activities (Jones, 2007). As in most forms of theater, the actor discovers their character and communicates to the audience through the body, and in this way, the client learns about themselves and how to

better communicate through drama therapy (Jones). Embodying characters, roles, concepts, images, and ideas allows the client to get in touch with their emotions and enhances an awareness of what is going on internally (Jones; Pendzik, 2006).

Considering the great disconnect from the body and the self after a traumatic or stressful experience, the goal is to bridge the split through embodied activities (Levine, 1997; Jones; Young, 1992).

### **Building Resources through Embodiment**

A person experiences their whole life within and through their body, their body being affected by each experience, and it is through the body their healing should occur (Jones; Young). Children living with symptoms of trauma and chronic stress can experience such a disruption in their body when the trauma occurs, that it arrests development of a sense of safety in the body, control of the body, and enjoyment of sensations in the body, leaving the body to be a dangerous place (Jennings, 2002; Young). Drama therapy with children with histories of trauma and chronic stress offers children embodied experiences to enhance their knowledge of and trust in their body. Embodied play provides children with a sense of safety, as their body becomes a more familiar place with each drama activity. Through repeated safe explorations of the body through embodied play, the child gains new positive associations with their internal sensations and awareness, reinforcing their body as a safe and good place.

As the body is the primary means by which a child learns, children with bodily trauma need extended embodied and physical play in order to re-establish a healthy and confident body where learning and development may occur (Jennings, 2002; Young, 1992). During embodied dramatic play, the child physicalizes their experiences and

gains a sense of body self, where the child gives life to their body and gains confidence within it (Jennings, 2002). In this way, the child gains competence and confidence in itself as a body and as an individual.

Embodied dramatic play also offers competency, community, and safety through practice. The client has the opportunity take on and practice new bodily identities (Jones, 2007). They can gain an awareness of their movements or sensations and become more confident in their own body's patterns, encouraging a newfound safety and trust within themselves (Jones). Safety in their own body begins the transformation to confidence in exploring other possibilities, allowing children to incorporate new methods of behaving and interacting (Courtney, 1981). As they begin to master new modes of expressing, experiencing, and communicating with their body, they may discover and practice new ways of relating to others, improving upon interpersonal relationships and establishing community (Jones).

Children also experience body sensations in drama therapy. Within creative movement experiences, drama therapy activities recapture the playful and spontaneous nature of movement, allowing them the time and space to gain awareness of various sensations and movements in their body (Cooper, 1996). It is through embodied play and activities that children may experience and bring attention to the potential of their own body and begin to inhabit and understand their body more accurately (Jones, 2007).

Drama therapy with this population focuses on increasing the client's capacity to identify, regulate, and express their sensations that have been muted by symptoms of trauma and chronic stress (James & Johnson, 1996). Drama therapy activities guide children through expressive movements and encourage internal awareness that begins the

process of identifying their sensations. Through experiencing and observing themselves and others, they begin to learn a vocabulary of movement (Lowndes, 1971). Drama activities encourage play and learning, practicing and reinforcing terms, movements, and sensations, as they become common vocabulary used in the session. Participants learn and experience first hand the sensation vocabulary, establishing a stronger relationship and understanding of the terminology.

### **Dramatic Projection**

Dramatic projection places aspects or feelings of the self onto other things and people (Jones, 2007). While projection is defined as a defensive process in Freudian psychotherapy, drama therapy encourages projection of emotional or problematic feelings or experiences creatively place outside of the person and onto dramatic representation in order to gain distance from the material, manipulate it, witness it, and internalize the newly founded perspective (Dunne, 2010: Jones). One may imbue a fictional character in role, small objects, myths and stories, body sculptures, and masks to create a relationship between inner states and outer expressions (Jones).

### **Building Resources through Dramatic Projection**

Safety is a present resource through dramatic projection as it provides space and distance from internal sensations and feelings to more appropriately encounter their struggles and solutions (Levine, 1997). Clients may place aspects of themselves that they are not yet ready to deal with directly through projecting it into a dramatic medium, and be helped to regulate their levels of arousal with this material accordingly (Johnson, 1987; Lahad et al., 2010). As children with histories of trauma and chronic stress have difficulty regulating their levels of arousal and behavior once aroused, it is important that

interventions offer a method to encourage healthy arousal and scaffolding for regulation (Levine, 1997; Melrose, 2006a; Van der Kolk, 1994). Incorporating dramatic projection encourages a safer, more regulated, and trustworthy experience of therapy, as levels of arousal may be altered and guided by the therapist and client. The child may begin to feel safer in their body and trust their capacity to regulate and have control over their feelings and impulses.

Competency may also be established through dramatic projection.

Externalization of their feelings of victimization, failure, and incompetence, establishes separateness where the individual is disentangled from their problems (Dunne, 2010; Melrose, 2006a, 2011). These students often identify themselves as troublemakers and are viewed in school and at home as bad kids. Projecting their negative feelings and experiences outside of themselves reinforces their goodness and their possibilities of success. They begin witnessing themselves from a new perspective; one where their negative feelings and misbehaviors do not define them and emphasis is placed upon them as a unique and special individual.

Dramatic projection of play provides children with the necessary distance in order to explore their problems, establishing a safe space to express thoughts and feelings (Jennings, 2002; Levine, 1997). Through projecting aspects of themselves, their feelings, and common sensations they experience, children within the program will gain a stronger awareness of their inner sensations, gain competency, and develop a safer relationship with their body. This can occur through many dramatic mediums, such as fairy tales, stories, puppets, action figures, and books. Themes and meanings from the stories and characters resonant with children subconsciously and allow them a safe

experience to play within these ideas and feelings from an embodied taking on of the roles (Jennings; Jones, 2007). Not only is this dramatic projection technique offering a safer exploration of their feelings and sensations, but it also allows for an embodied experience of these characters, their sensations, and establishes a new neural pathway through the brain from a different perspective. Through this embodied experiencing and witnessing others projecting, the clients may reintegrate the material into their own bodies and minds (Jones).

### **Dramatherapeutic Empathy**

Empathy encourages a connection and emotional resonance with others (Jones, 2007). Individuals with histories of trauma and chronic stress often feel their relationships with others compromised, cut off from their communities, isolated among friends and family (Johnson, 1987). Traumatic and stressful childhoods and infancies lead children to establish that others cannot be trusted, are not safe, and cannot be relied upon (Perry, 2007). This leaves an individual unprepared and unwilling to establish a relationship with another with low levels of empathic understanding. An important component of drama therapy and Self Regulation Therapy is to increase empathic understanding of others and establishing a sense of community, where individuals learn how to connect to others on an emotional level in and out of the group (Jones). These individuals need practice, guidance, and encouragement through group activities to begin the process of establishing empathic understanding and feeling part of a community and feeling safe amongst others.

### **Building Resources through Dramatherapeutic Empathy**

Individual and group drama therapy exercises build empathy through role reversals, group work, witnessing others, and being witnessed expressing sensations and feelings (Jones, 2007; Johnson, 1982). The basic structure and purpose of theater throughout history established community and expressed the communal aspects of a traumatic experience to bring together people to support the healing process (Johnson, 1987). Theater requires creative collaboration, facilitates high levels of social interaction, and working together (Emunah, 1994). Through this collaborative format, individuals will establish relationships, learn social skills, and gain an understanding of others. Giving these individuals repeated and consistent experiences of trust, safety, and interconnectedness within a community reinforces the development of new neural pathways in the brain associated with community, empathy, and understanding (Melrose, 2006a). The drama activities also establish a sense of community through the constant interaction between group members, exhibiting that each member of the group is essential (Emunah). For individuals who have rarely been accepted in a group setting and are repeatedly ostracized from or punished within their social settings, it is important for them to experience this feeling of community and acceptance, to gain understanding of others and begin to empathize with others as they develop these relationships. As these new relationships are developed through empathic relationships and community, the individuals of the group will experience safety amongst groups of others, hopefully building a new trust in their communities.

### **Interactive Audience and Witnessing**

Witnessing is the process of being the audience to others or to oneself while in drama therapy (Jones, 2007). One can witness the achievements and validate experiences of other group members or they can witness themselves through role reversal, body tracings, or using objects to represent themselves (Jones). It is important for the individual to not just be told about their achievements, but also to feel it and see their own achievement for themselves (Emunah, 1994; R. Melrose, personal communication, February 15, 2011). Giving them the experience to see themselves as reflected in others is an important step in therapy as the individual begins gains a new understanding of the self.

### **Building Resources through Interactive Audience and Witnessing**

Opportunities for competence are vital to the healing process. Skills, hobbies, and activities that give individuals feelings of achievement and mastery must be in place before healing can occur (Levine, 1997; Melrose, 2006a; Van der Kolk, 2001). Feeling mastery contradicts feelings of helplessness and begins to empower the child (Van der Kolk, 2001). Drama therapy believes that people's lives and identities have the potential to be represented in various ways from multiple perspectives (Dunne, 2010; Jones). For children with histories of trauma and chronic stress, the narrative that overwhelms other aspects of their life are negative, highlighting failures, victimization, and misbehavior. Part of drama therapy and narradrama helps people discover and build upon new and alternate versions of their experiences, explored within dramatic reality and drama activities (Pendzik, 2006). Through taking on new roles, trying out new movements and patterns of behavior, and exploring new themes in drama therapy, individuals may begin

to break maladaptive patterns and projections placed upon them (Emunah, 1994). As they begin to witness themselves and others like them achieving in these groups and adapting new behaviors, roles, and ways of relating, an increased sense of self worth and competency are established.

### **Play and the Playspace**

The creative arts therapies have seen children with histories of trauma and chronic stress respond effectively to playing and the playspace (Cattanach, 2008; Johnson, 1987, 2000). Drama therapy incorporates art, puppets, playing, roles, and stories into their therapeutic setting, which for children with difficulty processing verbal information, is the best way to engage in their experiences (Jennings, 1994; Johnson, 1987, 2000; Landy, 1996). Children also will incorporate play into their therapy intrinsically as they introduce themes, feelings, and events that they need to process and master and it is the therapist's job to support their exploration and encouraging the process of play (Jones, 2007; R. Melrose, personal communication, February 15, 2011). Play is found throughout drama therapy, as it is sometimes the main objective of an activity or encouraged to master a separate drama therapy activity (Jones).

The playspace is where the dramatic play takes place through improvised play, scene work, dramatized personal stories, games, plays, and dramatic rituals (Pendzik, 2006). The playspace encourages imagination and brings the fantasy into the here and now (Pendzik). Within this space, rules and boundaries alter, allowing for children to bring in and play with their dreams, fantasies, ideas, and desires into the space (Pendzik). Both play and the playspace establishes special relationship between time, space, rules,

and boundaries, increasing more creative and flexible attitudes towards individuals, events, and consequences (Jones, 2007; Pendzik).

### **Building Resources in Play and the Playspace**

There are great therapeutic potentials for play and the playspace as they offer the children new ways of expressing, communicating, and processing their experiences within a safe and flexible space (Jennings, 1994; Jones, 2007). As Levine (1997) suggests, play comes naturally to the child; however, children with histories of trauma may experience difficulty engaging in play as their development has been interrupted by trauma and chronic stress. Play meets the child where there has been a developmental block and guides him or her through the stages of development appropriately and on the level required (Jones). As they begin to master feelings and themes in the play, children may acquire knowledge and skills lost after the traumatic or stressful experience (Jones). With this mastery in play come new neural pathways in the brain associated with healthy levels of arousal in play that insists they are safe in their body and that not all arousal is the same (Levine). With new mastery and new neural pathways explored and practiced within a safe space, these children establish a new found competency in playing, being able to experience successful engagement with others furthering their sense of being part of and accepted by a community (Jennings, 2002; Lowndes, 1971).

Many children have not experienced a time or place in their life where they could lower their arousal and engage in child-like play, knowing they are safe (Pearson, 1996). The troubled lives that cause trauma and chronic stress, or misbehavior, often prevents children from engaging in carefree, fully focused play that enhances the healthy development of skills and knowledge in children. Feeling safe in the playspace and

engaging in developmentally appropriate dramatic play can alone be a therapeutic experience for many of these children (Pearson).

Children also gain sensory awareness and increased sensorimotor awareness through dramatic play. Sensorimotor play is an established technique in drama therapy that encourages awareness of movements through space and the individual's relationship to the outside world through their body and movement (Jones). It involves sound and movement activities, contact and exploration of object, physical relationships with others, and locomotion (Jones). These activities increase their knowledge and vocabulary around sensory and body language and this knowledge enhances their awareness of and ability to attend to internal cues (Lowndes, 1971). Sensorimotor play can be a warm-up, or for children with histories of trauma and chronic stress, it can be a phase of therapy unto itself that prepares children for more sophisticated dramatic play (Lowndes). As children begin to understand their own body, its internal sensations, and bodily cues, they may begin to take on more dramatic play such as roles, performance, masks, and puppetry.

The playspace in drama therapy is a place of duality, where the real and the not real coexist (Pendzik, 2006). In this space, there is great potential, as individuals explore what could be, what has been, and what they want to be. This space is often referred to as a dichotomy, a dual space, within which there is great healing potential (Boal, 1995; Jones, 2007; Pendzik). This space, containing both reality and fantasy within, provides a sense of safety to many participants as they can explore and practice their potential, yet remain within the safety of the playspace fantasy (Lahad et al., 2010; Pendzik). Within the playspace, time can slow down to prevent over-stimulation and arousal to help the

individual self-regulate. Individuals may change the scene of the trauma and complete the incomplete behaviors safely, or try on different roles to encourage strength and empowerment. Clients gain a sense of safety through this understanding of the duality of the playspace, trusting themselves and others through their exploration of new possibilities.

Competency can also be developed in the playspace when the client understands the dichotomy of the playspace. The playspace in itself is a paradox, as it is both real and not real and helps clients come to understand and deal with paradoxes in life (Penzik, 2006). As children with trauma and chronic stress are frequently rigid, the playspace and its paradoxes encourages flexibility as it serves as a metaphor for ambivalent feelings, sensations, and integrating good and bad in people. As this understanding becomes instilled, children become more competent in everyday life, with a flexible and more spontaneous approach to problem solving and relating.

Levine (1997) suggests that it is possible to dissociate while simultaneously being aware of what is happening around the individual, resulting in a dual consciousness that is necessary for re-associating one with their internal sensations and initiating the healing process. This dual consciousness is explored within the playspace, as well. Boal (1995) describes the playspace allowing the client to both experience and witness himself or herself experiencing at the same time. As they engage in play, roles, or other dramatic activities, the individual both participates and observes, allowing and encouraging somatic work and integration of body and mind (Boal). In this way, as individuals engage in dramatic play, they can also readily observe what is going on internally and

witness themselves, not just experiencing the sensation or activity, but processing it and integrating it at the same time.

### **Role Playing and Personification**

In drama therapy, there is an assumption that individuals may take on different and fictional identities (Jones, 2007). There are various purposes assuming various roles, such as to practice or develop skills, enhance qualities of the self, or to process real life events from a new perspective (Jones). Playing out new roles allows a client to develop new roles for their repertoire to better equip them to handle real life situations (Jones). As children with histories of trauma and chronic stress frequently identify with the role of the perpetrator, victim, and become stigmatized based on their misbehavior and difficulty regulating affect, role play offers great therapeutic benefits for these children to try on new roles and expand their role repertoire. It should be noted that children with histories of trauma and chronic stress often need to establish a sense of themselves and their body before they begin to try on new roles and therefore role playing should occur at a later stage of treatment when children are better able to regulate their own arousal and tend to internal cues (Jones). Role-playing is the most powerful way of engaging with the entire being, integrating feeling, thinking, sensing, and engaging the body (Cooper, 1996).

### **Building Resources through Role Play and Personification**

While enacting a role, an individual can step into and try on feelings, behaviors, sensations, and perspective that are separate from them (Dekker, 1996). As they are tried on and stepped out of at the end of the enactment, individuals may reflect upon them, process, and integrate qualities they find helpful (Dekker). The special quality of role playing allows individuals the opportunity to play someone other than themselves, to

develop empathy with others, and to witness themselves and have others witness them in new identities (Jones, 2007). Some of these roles may give children a positive internal sensation that encourages them to integrate qualities from that role into their life, reinforcing a new, more adaptive neural pathway to develop in the brain. Other roles may exhibit a negative experience and begin to prune their neural pathways to avoid those sensations and behaviors.

An example of helpful role-playing for children with histories of trauma and chronic stress would be monsters and heroes within classic fairytales and myths. There is a great love of myth and story, as they exhibit basic human desires and emotions that exhibit change and transformation in life that children crave (Bettelheim, 1977; McCarthy, 2007). When individuals stop talking about a story and move within its themes and embody characters, clients may project into the story and experience on a physical level new ways of relating and behaving (Holt, 1992). Through enacting the stories the client learns how to exercise the body and the mind simultaneously, regulating the self, while also cooperating with others at the same time to encourage community and empathic understanding (Bouzoukis, 2001; Holt, 1992). Research found that embodying a role from a familiar story allowed children to activate their inner emotions and feelings, encouraging comprehension and empathy towards human emotion (Baumer, Ferhold, & Lecusay, 2005). Children also practice regulation and competency as they become the leader of the story, inventing and creating its development within the safe and contained space (Holt, 1992). This gives children the space to develop competency, community, and safety as they master creative creation, exploration, and experience new roles and ways of behaving.

Levine & Kline (2007) encourage the incorporation of role playing and dramatic play in treatment of children with histories of trauma and chronic stress. It gives children an opportunity to feel empowered during arousal and also offers new experiences of success and competency. He encourages them playing both roles of perpetrator and hero, as they can help encourage act completion and a healthy and healing release of the powerful biochemicals left in their body (Levine & Kline). McCarthy (2007) encourages the enactment of the roles of monsters for children to redirect their energy towards healing. As children come to therapy with monstrous feelings, it can be empowering and healing to give them the space and validation to embody these roles, releasing their energy and acknowledging their feelings (McCarthy). Children need to reclaim this part that has been stigmatized, offering them the potential to embody it, transform it, and work through the negative biochemicals (Levine & Kline; McCarthy).

In addition to validating, empowering, and offering release, role-play encourages the development of role repertoire. Roles of heroes are important for children to play as they may triumph over powerful forces, feeling pride, mastery, while burning up residual biochemicals (Levine, 2007; Pearson, 1996). By playing the hero in the playspace, they can experience the sensations and activation of fight or flight that was not available to them in their previous traumatic experiences, completing the action and providing them with an opportunity to experience healthy and safe arousal and activation (Levine; Levine & Kline).

### **Transformation**

Transformation is the goal in all forms of therapy, and in drama therapy it remains at the crux. It works to transform ones identity through the creation of drama,

involvement in the dramatic process (Jones, 2007). Increasing spontaneity, creativity, and flexibility increases ones potential (Jones). As individuals transform themselves through playing, roles, masks, story, and other drama activities, they are transforming the way they relate to themselves and the world around them. The client experiences themselves from new and different perspectives, witnessing their own potential for growth and change. Their transformation encourages attitudes of competency and confidence, as they trust in their capabilities.

### **Building Resources through Transformation**

Children need to transform their traumatic experiences into positive ones through patterned, repetitive activation of the neural system (Levine, 2007; Perry, 2009). This occurs through the transformation of drama, as children engage in new behaviors, feelings, and perspectives they activate underdeveloped and more adaptive neural pathways that become more prominent, transforming their trauma. In both Self Regulation Therapy and Drama Therapy, flexibility and spontaneity are key goals to transform the trauma, which can be attained through creative creation and play.

### **Life-Drama Connection**

Drama Therapy activities and enactments may enhance or lessen the distance between clients and their relationship to their therapeutic material through dramatic projection and an understanding of the play space as both real and fantastical (Jones, 2007; Pendzik, 2006). Dramatic enactment and play allows for direct and indirect relationships with life, but there is always a relationship connecting life and the dramatic material (Jones). This may not always be clearly defined, but it is always present as

Drama Therapy always operates within a defined framework of intentional personal change (Jones).

### **Building Resources through the Life-Drama Connection**

It is with this understanding of the life-drama connection that childhood trauma and chronic stress may be addressed, transformed, and healed. Levine (1997) acknowledges for children with histories of trauma and chronic stress, it may be counter-therapeutic and harmful to explicitly, verbally, and cognitively repeat and review their traumatic material or past. Reviewing the trauma has the potential to trigger their nervous system into high arousal states of fear and cause further damage (Levine; Levine & Kline, 2007; Melrose, 2006). It is better to provide psychological distance from their problems in order to avoid a sudden surge of over-arousal and ignite a traumatic response (Levine & Kline). The life-drama connection of drama therapy allows for clients to have the psychological distance they need via dramatic projection, but still establish a connection and understanding within the play space between their dramatic play and real life. Clients may play at an aesthetic distance through myth, story, and roles that protect them from traumatic response, but engage their nervous system to allow for a slow and regulated awareness of their internal sensations and feelings. Through dramatic play, clients establish the life-drama connection through the distanced metaphor of story and role, and by slowly engaging and tracking their nervous system towards greater sensation and body awareness. This awareness and regulation of their internal sensations empowers them within the play space, a feeling that carries outside of the drama therapy space and into their homes and classrooms. While they did not engage directly with the traumatic or stressful event, they engaged with their body and their nervous system

through aesthetically distanced play, giving their body a sense of safety, competency, and control. The body remembers positive feelings and sensations as it seeks to heal itself (Levine; Melrose), therefore continuing to seek it out and re-associate neural patterns and pathways. The child connects their positive experiences to the outside world, establishing a life-drama connection of competency and awareness of internal felt senses.

## **Chapter 9**

### **Construction**

#### **Goals**

This new program merges concepts from neuropsychology, Self Regulation Therapy, Drama Therapy, and Educational Drama. It is a 16-week long therapeutic intervention program for students with histories of trauma and chronic stress to address the growing needs to integrate the mind and body in the treatment of students who are slipping through the cracks of today's educational system in North America. The therapeutic frame provides a safe, contained space for developing awareness of internal sensations, the body, and its movements through playful and creative expression in order to enhance self-regulation, competency, safety, and sense of community. It is the hope of the researcher that through building resources and enhancing flexibility, spontaneity, and creative expression that the students who participate in this program will become more successful, confident, and integrated members of their school and world communities, able to meet and appropriately address daily life challenges.

#### **Educator as Co-Facilitator**

It is also the aim of this program to increase and encourage educators and parents to consider chronic misbehavior and difficulties in the classroom with a new, informed perspective that encourages tolerance, empathy, and patience. To address this goal, this program will involve teachers and educational professionals as co-facilitators with the therapist in order to offer an opportunity for witnessing an alternative treatment program. Quite often these students are high energy and initially exhibit difficulty regulating themselves and their arousal levels, which requires more than one adult to ensure their safety and provide containment. Not only will educational professionals meet the needs

to provide help and support to the facilitator, but they will help ensure a sense of safety, community, and establish an important bond for the students and teachers that will carry into the halls and classrooms of their schools (Melrose, 2006). Research and literature also indicate that participation of the teacher or educator in student treatment programs increases the effectiveness of the program and success of the students (Corkum, McKinnon, & Mullane, 2005; Melrose). This outcomes stems from many different possibilities, but considering the significant impact teachers have on the lives of theirs students, the amount of time spent together, and how the quality of their relationship can negatively or positively effect an educational experience, it is not surprising (Corkum, McKinnon, & Mullane; Melrose). Practically, educators can provides support in maintaining structure and safety in the sessions, but their presence and involvement also extends hope and trust towards the student-teacher relationship and models the process of developing a new understanding in the way of working with these students in school systems.

In order to ethically incorporate teachers and educators into therapy groups, there should be a pre-group meeting with all adults participating to ensure confidentiality, discuss the goals, and educate them on the theory and rationale behind this group. It should be encouraged that co-facilitators understand and experience felt senses and tracking their internal sensations. Once a contract has been reviewed and agreed upon according to issues of confidentiality and treatment goals, the teachers may participate fully in the sessions. After each session, the co-facilitators should meet to discuss their impressions, thoughts, and concerns about the previous session and to review for the goals and outline of the upcoming session. It is important that the co-facilitators

communicate effectively and clearly, maintaining order, structure, and safety in the group.

### **Roles of the Therapist**

In this group, the therapist plays many roles. The therapist plays the practical role of the facilitator as they structure each session, providing a predictable series of activities for the clients and the co-facilitator. As the facilitator, the therapist should aim to lead dramatic activities and games focused on the process of the group or individual that encourages free expression, not the quality of performance or product (Johnson, 1982). Considering the co-facilitator, the therapist should encourage the co-facilitator to understand, relate, and participate within the group's activities to communicate the community of the group (Melrose, 2006a).

Other than the facilitator, the therapist must work to establish and maintain a safe space. As disruptions occur, it is important the therapist stays grounded and retains a sense of separateness from the disruptions to ensure they are not too flooded and overwhelmed with emotions in order to address the needs of the group (Melrose). In response to problematic behavior during the groups, the therapist should remain empathic, understanding, and firm. Reflecting back the observable sensations and actions of the participant to communicate safety and trust to the participants (Melrose). The therapist should attempt to slow down the child's responses to being over aroused and overwhelmed through drawing attention and awareness to their internal sensations, allowing them to witness their own capacity to regulate their own body and feel empowered rather than victimized (Melrose, 2006). Attention should be brought to internal sensations frequently within the group and the leaders should model sensation

vocabulary and awareness (Levine & Kline, 2007). At the beginning of each session, during activities, before and after exercises, and while in role, are all opportunities to bring the participants' attention inwards through slow guiding questions and tracking.

As the child plays the role of witness, it is also an important role for the drama therapist in this group. The therapist witnesses the child's capacity, reflecting back to them their achievements and competency (Pearson, 1996). Playing witness offers the opportunity to highlight the strengths of each participant, drawing attention to positive aspects of the personality frequently ignored and overshadowed by trauma symptoms (Dunne, 2010). The therapist should always observe and share achievements of the participants, establishing that every member of the group and community is valuable and competent.

The roles of the drama therapist in this group extends to the role of the director and player, as they share stories, hold the structure of the story, and take on roles as needed to support the dramatic play (Jennings, 2002; Pearson, 1996). In this way, the therapist models appropriate play for the participants while establishing clear boundaries between dramatic reality of the story and everyday reality (Jennings). Gaining an understanding of fantasy versus reality encourages flexibility and spontaneity, improving the child's ability to manage and respond to everyday occurrences in life (Levine, 1997; Levine & Kline, 2007; Johnson, 1987; Melrose, 2006).

### **Structure**

The program consists of 16 forty-five minute long, weekly sessions. The structure of this group takes into consideration the needs of children with histories of trauma and chronic stress. Children with histories of trauma and chronic stress are frequently

aroused and sensitized to orienting to potential threats (Levine, 1997; Melrose, 2006a). In order to allow for more trust and safety, students should be informed about the content of the sessions and become familiar with the structure of the group in order to create a predictable environment where they may anticipate the activities of the group (Melrose, 2006a). When these children have structure, their threat response declines, allowing for their nervous system to experience positive arousal and internal focus (Melrose). Each group should be outlined for the group to see and follow a similar pattern each week in order to establish a routine that offers containment and boundaries, ensuring their safety. Similarity in sessions will also enhance repetition and the possibility for mastery (Perry, 2007). As they begin to master games, sensations, and play their brain will incorporate new neural pathways and aid in healthy brain development to instill useful life skills (Perry).

Due to the population, there is high probability for externalizing behavior in the group (Melrose, 2006a). In order to address these behaviors and ensure safety and competency, the group should remain no larger than six children with two co-facilitators. Should problematic behaviors arise, the co-facilitator should not remove the child from the room, but offer the option to take a time away, not a “time out”, from the group (Melrose, 2006). During this time, the child should remain with the co-facilitator in the room and their awareness should be drawn to tracking their internal sensations, building scaffolding for self-regulation (Melrose). Once the child recognizes he or she is ready to join the group, it may. To reinforce predictability, the group should create together and establish a code of conduct or list of rules, with consistent and fair consequences for behavior that everyone understands and agrees to. This way, if a participant breaks a

rule, there is a consistent and pre-determined consequence for their behavior to reinforce the boundaries and a sense of safety. In addition to consequences, there should always be opportunities for repair (Melrose). They should be guided to do something constructive to repair the damage, exhibiting the possibilities for change and their own capacity for good (Melrose).

### **Three Phases of Treatment**

The format of the therapy group follows three phases of treatment to achieve safety, competency, community, and building a vocabulary for internal sensations. The first phase is inspired by Emunah's (1994) first of the *five phases of drama therapy*, Jennings' (2002) stage of Embodiment in *Embodiment, Projection, Role*, and the improvisational exercises of Spolin (1986). The first phase, embodied play, works to establish and maintain a sense of playfulness and embodiment that prepares the group members for the dramatic play to follow in subsequent sessions (Emunah). These activities include improvisation, interactive exercises, structured theater games, and body explorations. As this phase is important in laying groundwork for children to explore internal sensations and embody roles, it will explore their senses and external environment in order to establish for the child where their body exists in space and gain comfort living and playing within it (Jennings; Lowndes, 1971). Children with histories of trauma need to first grow to understand their own body before they may begin to take on roles of others, therefore this phase must come before dramatic embodied role play (Jennings; Jones, 2007). This phase also works to establish a sense of trust, safety, and community that is important to the therapeutic healing process of children with histories

of trauma and chronic stress (Emunah; Levine, 1997; Melrose, 2006a; Van der Kolk, 2003).

Phase two introduces the internal sensation vocabulary that is used in Melrose's (2006b) workbook for students with histories of trauma and chronic stress, *Hope and Healing*. This phase will incorporate psychoeducational games and activities for the participants to learn and become aware of their internal sensations, gain an understanding of each of the sensations, and further encourage playfulness, safety, and community. As the participants begin to gain an internal awareness, they will begin to gain competency and be empowered through mastery and regulation of their levels of arousal. This prepares the participants to take on roles and embodied dramatic play as they gain better control of their feelings and behaviors.

In the third phase of therapy, playfulness and awareness of internal sensations are joined and practiced through role play and embodied dramatic play through myths and fairy tales. These sessions are greatly inspired by the work of Sesame (Pearson, 1996), Bouzoukis (2001), McCarthy (2007), and Levine and Kline (2007). As these programs incorporate story and role play, this phase will share stories of monsters and heroes, encouraging children to take on and embody these roles, gaining awareness of their internal sensations through the roles and how they influence the characters. Through dramatic projection, role play, and the life-drama connection, they will be able to explore their sensations associated with trauma, build new neural pathways, witness themselves in new roles, and explore their feelings at a distance to maintain optimal levels of arousal. The juxtaposition of monsters and heroes allows children to take on both the roles of perpetrator, victim, and hero. In these roles, they can complete actions that were left

incomplete through their trauma, with the slow, guided regulation of the therapist and co-facilitator (Levine & Kline). They will also be able to play with and address roles they have been stereotyped as, such as victim and monster, to gain psychological relief through dramatic projection and distance. Playing the role of the hero offers them an opportunity to witness strength and competency.

## **Chapter 10**

### **Sensational Sensations**

#### **Session Outlines**

The following session outlines will be broken down into four categories, 1) session objective and therapeutic goals, 2) supplies, and 3) exercises. Major components of the group will be described and each exercise explained in detail. Many of the exercises in this program were compiled from existing Drama Therapy and Self Regulation Therapy exercises and books. These include exercises from Peter Levine, Maggie Kline, Renee Emunah, Viola Spolin, Sally Bailey, and Regalena Melrose. Their texts are listed in the bibliography for further inquiries or explanations.

#### **Session 1**

**Session Objective and Therapeutic Goals:** This session is the introduction to the play space of drama therapy and to establish a playful environment. In this session, clients will introduce themselves and begin the process of establishing a sense of community and a safe space. Clients will also be led through the warm-up, which will become a ritual in the sessions and aid in their sense of mastery and competency. The body warm-up encourages play, but it also brings their focus and awareness into their bodies to prepare them for internal sensation awareness and the vocabulary that will arise in subsequent sessions. This session will also introduce a camera as a witness, where the therapist takes photos to concretely witness moments that positively alter their perception of themselves. (These photos will be printed later and made into a graduation book for each member of the group to create and take home as a transitional object). Also introduce the group calendar that will be reviewed at the beginning of each session so the group knows how

many sessions they have attended and how many are left. This will aid in the termination process.

**Supplies:** Camera, Timer, Manila Folder for each participant, Coloring Materials, Soft/Relaxing music to play, Group Calendar

**Exercises:**

1. Warm-up

a. 60-Seconds: In 60 seconds, the students are guided through a gradual tensing of and releasing of major muscle groups. Starting from the bottom and working up. Major body parts and muscles to focus on are toes, feet, thighs, bottom, stomach, shoulders, hands, tongue, eyes, and whole face. Bring their attention to how they feel inside their body before and after the exercise. In the first session, there may be resistance and that it ok, simply reflect back what they say and validate their experience.

b. The Hook Up: This exercise is from Brain Gym, and decreases adrenaline by bringing attention away from the reptilian brain and down into their body. First, students cross their ankles. Then the hands are crossed, clasped, and inverted, with arms resting on the chest and the elbows facing down. Guide students to place the tip of their tongue behind their top, front teeth.

c. Silly Talk: With their bodies in the Hook Up position, guide them through a series of tongue twisters or silly sayings, with their tongue still resting behind their top, front teeth. Examples of sentences: “How now brown cow?” “One smart fellow, he felt smart. Two smart fellows, they both felt smart. Three smart fellows, they all felt smart.” or “Peter Piper picked a peck of pickled peppers.” Any tongue twister or silly poem will do.

d. Face Warm-Up: Horse Lips, Stretching tongue out, up, down and making circles, and finishing with Mouse Face/Lion Face. In this exercise, student squish and tense up their facial muscles to make it as small as a mouse, and then exaggerated release through making their face as big as a lion face. They are guided back and forth between the two faces, creating a playful, facial warm-up.

e. Body Warm-up: Shake down, where each extremity (legs, arms, whole body) is shaken to a countdown from 5, then from a countdown of 4, and etc. until 1. Then they are guided through Jell-O Jigglers, which is an exercise starting with their feet and moving up their body as they pretend they turn into Jell-O, and guided back into their own body. It closes with Mouse Body/Lion Body, similar to Mouse Face/Lion Face, but incorporating the whole body.

f. Rules: In the first session only, the group should decide together upon a set of rules that apply to the group. Using a poster and colorful markers, emphasize the importance of respecting each other and how this is a space where everyone should feel safe to play and explore. Reinforce the idea of community and how each person is valuable. Time away should be touched upon here. It is also a good time to explain the structure of the group, how long, how often, and the daily activities will be posted each week.

## 2. Dramatic Play

a. Name Game: Each person goes around the circle saying their name and doing a sound and movement of their favorite animal. Each player must say their own and repeat all previous players that went before them, turning it into an embodied memory game.

### 3. Closure

a. Folders: Each week, participants will be encouraged to color during their closure, with the option to share their drawings and thoughts to the group. The first session, blank manila folders should be passed out to each member of the group, including adults. They are encouraged to decorate it however they choose and are given a set amount of time and reminded the last five minutes to prepare the end of the session.

b. Sharing: If they choose to share, they may, but are not forced to.

c. The Magic Box: This is a closing ritual for this group. An imaginary, magical box is brought down from the ceiling. Each group member is allowed to take anything they want out of the box and place anything into the box. The whole group helps and supports each person during their turn. Once each group member has gone, the box is returned to the ceiling and the group is concluded.

### **Session 2**

**Session Objectives and Therapeutic Goals:** Continue to explore and expand upon understanding of play and the play space. Within the playspace, they will experience embodied play and attention will be drawn to their internal experiences. The play will also encourage their sense of community and safety.

**Supplies:** Folders, Coloring materials, Paper, Calming music to play, Camera, Timer, Group Calendar

### **Exercises:**

1. Warm-up

2. Dramatic Play:

a. Magic Tree: Children are guided through the imagery of a tree as they ground and root their feet firmly into the ground and are guided through reaching their arms high into the sky, like branches. The therapist should guide the players to experience different environmental sensations that can occur around a tree and encourage them to visualize it and stay strong. The environmental sensations can be rain, wind, snow, sun, and a bird landing on their branches. During each sensation, they are asked how it feels and how their body responds to each. Co-facilitators and therapist can help ground students by giving support to their feet, ankles, and legs.

b. Choo-Choo Stomp: Students create trains by resting their hands on the waist of the person in front of them. The trains move by each participant taking short, strong, vigorous steps, lifting their feet not very far from the floor. The joy in this exercise is making a loud thump all together with feet while moving around the room. The goal is to move rhythmically in unison throughout the room. Voice can be added, such as chanting “Choo Choo Stomp Stomp!”

c. Machine: In this exercise, the objective is to create a machine using each member of the group. Individually, participants add a sound and movement to the machine to work together. Each participant has the chance to start the machine if they wish. If someone does not want to participate, they may play the role of the machine operator who controls how the machine operates: fast, slow, forwards, or reverse.

### 3. Closure

a. Folders: Children may finish coloring their folder or take a new piece of paper and draw their favorite moment from the session that day. Play calming music while they

are coloring, ask for suggestions for music that calms them down or makes them feel good to bring in and add to their closing music.

- b. Sharing
- c. Magic Box

### **Session 3**

**Session Objective and Therapeutic Goals:** This session continues to build a safe and trusting space that supports a sense of community. The activities aim to enhance group creative collaboration and playfulness, while deepening an awareness of their bodies in space and in play.

**Supplies:** Folders, coloring materials, paper, soft music for listening, camera, timer, group calendar

#### **Exercises:**

1. Warm-Up
2. Dramatic Play:
  - a. Choo-Choo Stomp
  - b. Red Light/Green Light
  - c. Keep the Balloon in the Air: A balloon is blown up. The group must work together as a team to keep the ball in the air, but each player can only touch it once at a time. If it hits the ground, the ball must start over. Keep track of how many times it is tapped before it touches the ground.
3. Closure

- a. Folders: Draw their favorite moment from the day or how they feel right now.

Listen to quiet, calming music, always taking requests or music a group member brings in.

- b. Sharing

- c. Magic Box

#### **Session 4**

**Session Objectives and Therapeutic Goals:** Continue to establish a sense of community and safety as the players become more interactive and involved in creative collaboration. Players will work on trust and building empathic understanding through dramatic embodied play.

**Supplies:** Folders, coloring supplies, paper, music, chair, small stack of books, pillow, shoes, chalk or masking tape, blindfold, camera, timer, group calendar

#### **Exercises:**

1. Warm-Up

2. Dramatic Play

- a. Airport: Using masking tape or chalk, outline a rectangle approximately four feet by twelve feet, representing an airport landing strip. A chair, a small stack of books, a pillow, and shoes are placed randomly within this area. Players count off into two groups, one group starts as pilots and the other group starts as air traffic control. Pilots are at one end of the rectangle and air traffic control is at the other. Because of poor visibility, the pilot wears a blind fold, the air traffic control must guide the pilots to a safe landing at the end of runway close to air traffic control. To make a safe landing, the pilot must make their way down the runway without touching or knocking over the objects or

stepping outside of the rectangle. The tower guides the pilot by calling out specific directions, such as Right Foot, one small step forward. Game is over when each group member has been both pilot and air traffic control.

### 3. Closure

- a. Folder: Color how it felt to be the pilot or air traffic controller.
- b. Sharing
- c. Magic Box

## Session 5

**Session Objectives and Therapeutic Goals:** As a sense of community and safe space is established throughout, the group begins to explore the body in relation to external environments through focusing on the senses. By exploring the world of sensations that surrounds us, the group will be more prepared to explore the world of sensations within. The sensations will be explored through dramatic play to encourage playfulness, competency, and a sense of community.

**Supplies:** Folders, Coloring Materials, Paper, Music, Camera, Timer, group calendar

### Exercises:

1. Warm-up
2. Dramatic Play
  - a. Feeling Self with Self: Players stand quietly in a circle with their eyes open as the therapist guides their attention to their body in space:  
 “Feel your feet in your shoes, feel your shoes on your feet.  
 Feel your legs in your pants, feel your pants on your legs.  
 Feel your back against your shirt and feel your shirt against your back.

Feel your hair on your head and feel your head on your hair

Come back to your feet. Feel your foot on the floor and the floor up against your foot.”

b. Space Walk: After participants have their attention on their body in space and have been grounded, guide them to walk slowly around their room. Ask them to feel the space around them and how it changes their feelings inside.

c. Change 3 Things: Divide group members up into partners. Each partner decides who will be the guesser first. The guesser observes their partner, trying to remember what they see and then turn around, facing away from their partner. Their partner changes 3 things, such as untucks their shirt, puts their hair in a ponytail, unties their shoes, etc. The guesser turns around and tries to guess the 3 things that have changed. When completed the partners switch roles.

d. Who Started the Motion: Guide participants to stand in a circle. Ask for one volunteer to go out of the room with the facilitator. This is the guesser. Once the guesser has left the room and is out of earshot, the group decides upon a leader whom the group will follow. While standing in place, the leader will do movements the entire group will follow. When the guesser returns, he or she will try to discern which group member the group is following.

### 3. Closure

a. Folders: Color the sensation of sight to claming music.

b. Sharing

c. Magic Box

## Session 6

**Session Objectives and Therapeutic Goals:** This session continues to explore the sensations, focusing on sound. It will increase awareness of their body, their senses, and prepare them for awareness of internal sensations. The group will also enhance empathic understanding and community through creative collaboration.

**Supplies:** Folders, Coloring Supplies, Paper, Music, Timer, Camera, Ball or Small Object, Group Calendar

### Exercises:

1. Warm-up

2. Dramatic Play

a. Feeling Self with Self

b. Space Walk

c. Listening to the Environment: Guide players to find a spot on the ground where they can sit alone. Encourage them to close their eyes and listen to their environment. Ask them to listen for as many sounds as they can and to try to figure out what they are silently in their heads. Turn the timer on for one minute. When the minute is up, players may open their eyes. Each may name a sound they heard during the minute.

d. Sound Environments: Bring the players to stand in a circle. Each person chooses a sound they heard in the room and try to recreate it with their voice or body to recreate the environment of the room. Then, each person may name an environment that they enjoy being in, where they feel good and safe. Examples would be the beach, their cottage, a baseball game, at home. They assign a sound to each participant or take suggestions offered from group members. Once each group member has a sound, they

stand in the center of the circle and listen to the group create the environment for them. The person in the center may conduct the sounds, adding sounds in and out, raising or lowering the volume and frequency of sounds. Each person in the group receives a turn.

e. Dog and Bone: IF there is enough time, use this game as an opportunity for the group to practice their hearing, since it has been warmed-up and they have practiced it all day. One person sits in the center of a seated circle. This is the dog. The dog is pretending to be asleep, but protecting his “bone”, a ball or small object, from being stolen. The players sitting in the circle try to be as quiet as possible to sneak the bone away from the dog. The dog must listen carefully to try to hear which player took the bone. When the leader says the dog may open their eyes, the dog tries to guess from listening who is hiding their bone. Each player gets a turn to be the dog.

### 3. Closure

a. Folders: Color the environment that we created with sound and think about how you felt in that safe place.

b. Sharing

c. Magic Box

## **Session 7**

**Session Objective and Therapeutic Goals:** This session continues to explore the sensorial world outside of the body through touch. Touch in therapy can be a sensitive issue, in particular with this population, therefore it is critical to ask permission for each participant to be touched during this session. Through touch, participants will explore their internal sensations in relationship to different sensorial experience of touch. They will also develop their sense of community through interactive play.

**Supplies:** Folders, Coloring Supplies, Paper, Timer, Camera, 5 Textured Tactiles, Scarf for each participant, Music to dance to and calming music

**Exercises:**

1. Warm-Up

2. Dramatic Play

a. Feeling Self with Self

b. Space Walk

c. Scarf Dancing: Each participant is handed a scarf. Music with varying tempos and timbres are played and group participants take turns leading scarf dances. The therapist starts, modeling for the group that there is no wrong way to dance. Each participant has the chance to lead a scarf dance. A timer is set for one minute when each participant is allowed to independently scarf dance to the music.

d. Tactiles: The group is introduced to a collection of various tactiles to experience their reactions to different textures. Each member chooses a tactile and makes a sound and a movement to embody the texture. The group goes around the room trying to guess which group member is which texture. Each group member is asked how it felt inside to be that texture.

e. Back Writing: Group members are paired off. One player is the writer and one player is the guesser. The guesser turns their back to the writer and the writer traces one letter on the back of the guesser. Direct the writers to do it slow, fast, soft, hard, and to find out which one works. When the Guesser correctly answers what letter it is, the two players reverse roles.

3. Closure

- a. Folder: Color the tactile's texture and how it felt to them inside.
- b. Sharing
- c. Magic Box

## **Session 8**

**Session Objectives and Therapeutic Goals:** This session takes a psychoeducational approach, as players are introduced to the inner world of sensations. As they become aware of these sensations, they can become more able to regulate and transform their sensations and levels of arousal. This session introduces the concept and vocabulary, while always encouraging safety, community, and empathic understanding.

**Supplies:** Folders, Coloring supplies, Paper, Timer, Camera, Butcher Paper, Tape, Group Calendar

### **Exercises:**

1. Warm-Up
2. Dramatic Play
  - a. Review the sensations explore so far. Encourage students to notice what is outside of them that has been explored so far in the group.
  - b. Body Tracing: Have each child lay on a blank piece of butcher paper that is long enough to have the whole body traced. Have group members partner up and trace each other's body outlines on the butcher paper, assisting and working on empathy.
  - c. Once the tracings are finished, hang them on the wall. Introduce the idea that there is space inside each of our bodies, a whole world of sensations that are influenced, but different than, the sensations we experience outside of us. These can be referred to as "sensational sensations." Ask them what is going on inside of them at this moment:

headaches, growling stomach, tight, tense, pounding, hot, or cold and ask them where in their body they are. How do you know if you feel good or bad? Suggest that the next few weeks are going to explore the inner world of sensational sensations.

### 3. Closure

a. Folders: Encourage participants to draw and color what they feel inside their body at that very moment, it can be an image, words, or a story.

b. Sharing

c. Magic Box

## **Session 9**

**Session Objectives and Therapeutic Goals:** This session introduces the vocabulary of internal sensations and offers embodied exploration of many internal sensations.

Through embodied dramatic play, children will gain a deeper understanding of these sensations and gradual become more aware of their internal worlds.

**Supplies:** Folders, Coloring Supplies, Paper, Camera, Timer, Body Tracings, Poster Board, Group Calendar

### **Exercises:**

1. Warm-Up

2. Dramatic Play

a. Choo-Choo Stomp

b. Feeling Self with Self

c. Space Walk

d. Space Walk in Substances: As group members walk around the room, transform the space into various substances such as water, mud, jell-o, and ask for

suggestions. While the group is exploring each substance, ask the group for words describing how they feel in different substances and write them down on a piece of poster board and make a list of sensations. At the end, turn the space into water to wash off the substances and bring them back into air and to the room.

e. Review their list of sensations and add a list of sensations from Melrose's workbook *Hope and Healing*.

### 3. Closure

a. They may color in one of the sensations on their body sculpt where they felt the sensation.

b. Sharing

c. Magic Box

## Session 10

**Session Objectives and Therapeutic Goals:** This session continues to explore the internal world of sensations through games and embodied dramatic play. Their vocabulary and understanding of these sensations increase their awareness and the capacity for self-regulation.

**Supplies:** Folders, Coloring Supplies, Paper, Timer, Camera, Body Tracings, Bag of sensation vocabulary, Poster of sensation vocabulary, Group Calendar

### Exercises:

1. Warm-Up

2. Dramatic Play

a. Choo-Choo Stomp

b. Sensational Party: One player leaves the room with the co-facilitator. The group in the room decides upon one sensation to embody together. When the player who left the room returns, they try to guess the sensation the group is embodying. Hints are given so that each player successfully guesses.

c. Guess the Sensational Sensation: Individually, players randomly select a sensation from the bag. They create a frozen body sculpt or pose that represents the sensation. The group observes how they look, what they could be doing, and tries to guess the sensation.

d. Progressive Relaxation or Magic Trees: These exercises brings the group back to neutral, helping to ground them and supporting self regulation after activation.

### 3. Closure

a. Color the Body Tracing: Choose a sensation they feel right now in their body and color it in their body tracing.

b. Sharing

c. Magic Box

## **Session 11**

**Session Objectives and Therapeutic Goals:** This session continues to explore internal sensations and heightens awareness through embodied dramatic role-play and games.

They are guided through an experience of self-regulation and prepare for their levels of arousal. This session offers opportunities to burn off damaging neurochemicals in their bodies through slowed down and controlled arousal. Through these games the individuals will also experience success and mastery.

**Supplies:** Folders, Coloring Supplies, Paper, Timer, Camera, Body Tracings, Masking Tape, Wolf Mask or Tail is optional, Group Calendar

**Exercises:**

1. Warm-Up

2. Dramatic Play

a. Choo-Choo Stomp

b. The Wolf Comes at Midnight (Levine & Kline, 2007): Create a half circle to represent the wolf's cave and another space to designate a safe space with masking tape.

The therapist or co-facilitator announces they are have turned into a wolf and goes into the wolf's cave. The children gather four feet from the wolf's cave. The players ask,

“What time is the wolf coming?” The wolf responds, “The wolf comes at midnight!!”

The players ask, “What time is it now?” The wolf responds with a time from 4 to 8

o'clock. The players continue to ask what time it is and each time the wolf responds with

an hour later. In between each question, the co-facilitator encourages players to take a moment to notice how they are feeling in their body to foster a nervous system discharge.

The players also make a plan of defense when the wolf comes out. Guide them to

practice running, jumping in place, all to encourage awareness of the power they have in

their bodies. Once a plan of safety is chosen, repeat the process of internal awareness and

questioning, counting down until it is midnight. At midnight, the wolf responds with,

“It's midnight! It's my time!!” The world runs after the children as they activate their

plan and run to safety. Once they are safe, direct their attention to their internal

sensations, where they feel safe in their bodies, and how this sensation feels.

c. De-Role: Take the group through a progressive relaxation that brings them back into their own body and into their own identity.

### 3. Closure

- a. Body Tracings: Ask them to draw where they felt safe in the bodies.
- b. Share
- c. Magic Box

## **Session 12, 13, and 14**

**Session Objectives and Therapeutic Goals:** Sessions 12, 13, and 14 explore the participants' emotional and sensational world through dramatic projection of classical fairy tales with themes of victims, predators, monsters, and heroes. Through aesthetic distance, the participants will explore their feelings and sensations to roles and expand their role repertoire. They will also become aware of internal sensations and behaviors associated with roles. The group will creatively collaborate to enact the story, further establishing community. Termination will also be addressed beginning in session 12, outlining how many sessions are left each week and exploring their feelings and internal sensations associated with this information.

**Supplies:** Folders, Coloring Supplies, Paper, Timer, Camera, Body Tracings, Music, Tape, Group Calendar

### **Exercises:**

1. Warm-Up
2. Dramatic Play

a. Story Telling: The therapist tells the story of one of the following fairy tales each week. They story should tell the whole story and include the characters, but not too detailed. The players will act out each of the fairy tales and too much detail will prevent from optimal dramatic enactment and role playing.

*Three Little Pigs, Little Red Riding Hood, Hansel and Gretel, Clever Jackal gets Away, The Three Billy Goats Gruff, Greek myth The Cyclops Cave from the Odyssey*

b. Once the story is told, players choose their characters. More than one person can play the same character, and the group must work together to creatively solve the issues and collaborate. The therapist and co-facilitator take on the roles to ensure the story may be enacted

c. The group enacts the story. If group members become aroused, slow them down and bring them into their bodies and internal sensations. Ask at the beginning and ending of the story how the characters feel inside their bodies.

d. De-Role

### 3. Closure

a. Folders: Ask each participant to draw themselves in role and indicate an internal sensation in that role.

b. Sharing

c. Magic Box

## Session 15

**Session Objectives and Therapeutic Goals:** This session begins the termination process of saying goodbye to the group and reflecting on accomplishments. Through creating their graduation booklet, each participant reviews their process through the

group, their progress, and plays a role in saying goodbye. In this session, each group member creates a transitional object to take home with them when the group is over.

This group also emphasizes the community that was created and how each individual was a valuable member of the group.

**Supplies:** Folders, Coloring Supplies, Colored Construction Paper, Yarn, Hold Puncher, Glue Sticks, Printed out copies of photographs, Group Calendar

**Exercises:**

1. Warm-Up

2. Dramatic Play

a. Choo-Choo Stomp

b. Group Story-Telling: Tells the story of the group one sentence at a time. The group can also tell a story about internal sensations and create their own fairy tale about heroes and monsters. This exercise reviews their group and enhances a sense of community through creative collaboration.

c. Graduation Books: This is the emphasis of the session. Each group member goes through their folder and creates a book out of their pictures, photographs from the sessions, and new pictures they wish to make. They can be put together using yarn and a hole puncher. Put the timer on for the time allotted and keep them aware of the time to help support self-regulation and preparing when to stop.

3. Closure

a. Sharing

b. Magic Box

**Session 16**

**Session Objectives and Therapeutic Goals:** This session offers closure to the therapeutic process. The exercises in this session are geared to giving feelings of competency, value, and a sense of accomplishment. Through leading workshops and receiving compliments from the group, each participant gains a sense of mastery and success. They also are given a transitional object to take with them from the group to remind them of and instill in them their competency, experiences of safety, being part of the community, and their awareness of felt senses.

**Supplies:** Folders, Graduation Books, Chair, Group Calendar, Body Tracings

**Exercises:**

1. Warm-Up: Offer group members the opportunity to lead different exercises as a way to exhibit and witness mastery.
2. Dramatic Play:
  - a. Choo-Choo Stomp
  - b. Graduation Ceremony: Each child sits at the front of the room to receive their graduation book and their body tracing. The child may take them home or choose to leave them with the therapist. The therapist, co-facilitator, and group members offer why they appreciate this group member. The individual at the front shares their internal sensations as they receives compliments and describe how they feel. Each group member goes through the graduation ceremony, including therapist and co-facilitator.
3. Closure
  - a. Sharing
  - b. Magic Box

### Bibliography

- Adams, D. & Lehnert, K. (1997). Prolonged trauma and subsequent suicidal behavior: Child abuse and combat trauma reviewed. *Journal of Traumatic Stress, 10*(4), 619-634. doi: 10.1023/A:1024897803655
- Adams-Tucker, C. (1982). Proximate effects of sexual abuse: A report on 28 children. *American Journal of Psychiatry, 139*(10), 1252-1256. Retrieved from EBSCOhost.
- Arseneault, L., Cannon, M., Fisher, H., Polanczyk, G., Moffitt, T., & Caspie, A. (2011). Childhood trauma and children's emerging psychotic symptoms: A genetically sensitive longitudinal cohort study. *American Journal of Psychiatry, 168*, 65-72. doi: 10.1176/appi.ajp.2010.10040567
- Bailey, S.D. (1993). *Wings to fly*. Rockville, MD: Woodbine House.
- Baumer, S., Ferholt, F., & Lecusay, R. (2005). Promoting narrative competence through adult child joint pretense: Lessons from the Scandinavian educational practice of playworld. *Cognitive Development, 20*. doi: 10.1016/j.cogdev.2005.08.003
- Becker, K. (2002). Attention and traumatic stress in children. *Dissertation Abstracts International: Section B. Sciences and Engineering, 63*(6-B), 3038.
- Bennett, E. A. (2000). *Stress, trauma, and PTSD in ADHD-diagnosed children: A biopsychosocial perspective*. California School of Professional Psychology - Berkeley/Alameda). *ProQuest Dissertations and Theses*, Retrieved from <http://search.proquest.com/docview/304601697?accountid=10246>
- Bettelheim, B. (1977). *The uses of enchantment: The meaning and importance of fairytales*. New York, NY: Alfred A. Knopf.

- Boal, A. (1995). *The Rainbow of desire: the Boal method of theater and therapy*. New York, NY: Routledge.
- Bouzoukis, C. (2001). *Pediatric drama therapy: They couldn't run so they learned to fly*. Philadelphia, PA: Jessica Kingsley.
- Bremner, J., Southwick, S., Brett, E., Fontana, A., Rosenheck, R., & Charney, D. (1992). Dissociation and posttraumatic stress disorder in Vietnam combat veterans. *American Journal of Psychiatry*, *149*, 328-332. Retrieved from EBSCOhost.
- Cattanach, A. (2008). *Play therapy with abused children*. London, UK: Jessica Kingsley.
- Cloitre, M., Stolbach, B., Herman, J., van der Kolk, B., Pynoos, R., Wang, J., & Petkova, E. (2009). A developmental approach to complex PTSD: Childhood and adult cumulative trauma as predictors of symptom complexity. *Journal of Traumatic Stress*, *22*(4), 399-408. doi: 10.1002/jts.20444
- Cohen, J. (1996). Factors that mediate treatment outcome of sexually abused preschool children. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*, 1402-1410. doi: 10.1097/00004583-199610000-00028
- Cooper, D. (1996). Beginning with the body. In J. Pearson (Ed.), *Discovering the self through drama and movement* (pp. 17-26). Bristol, PA: Jessica Kingsley.
- Courtney, R. (1981). *The dramatic curriculum*. London, ON: Faculty of Education, University of Western Ontario.
- De Bellis, M., Keshavan M., Clark, D., Casey, B., Giedd, J., Borin, A., et al. Developmental traumatology: II. Brain development. *Biological Psychiatry*, *45*(10), 1271-1284. doi: 10.1016/S0006-3223(99)00045-1

- Dekker, K. (1996). Why Oblique and Why Jung? In J. Pearson (Ed.). *Discovering the self through drama and movement*, (39-45). Bristol, PA: Jessica Kingsley.
- Diseth, T.H. 2005. Dissociation in children and adolescents as reactions to trauma – an overview of conceptual issues and neurobiological factors. *Nordic Journal of Psychiatry*, 59(2), 79-91. doi: 10.1080/08039480510022963
- Dunne, P. (2010). Narradrama with marginalized groups. In E. Leveton (Ed.). *Healing Collective Trauma* (pp. 25-35). New York, NY: Springer.
- Forrester, A.M., C. Kim, Kyongok. (2005). “Developmental transformations in the treatment of sexually abused children.” In Weber, A.M. & Haen, C. (Eds.) *Clinical applications of drama therapy* (pp. 67-86). New York, NY: Brunner Routledge.
- Frosting, K. & Essex, M. (1998). *Expressive arts therapies in schools*. Springfield, IL: Charles C. Thomas.
- Gendlin, Eugene. (1978). *Focusing*. New York, NY: Everest House.
- Glaser, B & Strauss, A. (1967). *The discovery of grounded theory*. Chicago, IL: Aldine.
- Glod, C.A., & Teicher, M.H. (1996). Relationship between early abuse, post-traumatic stress disorder, and activity levels in prepubertal children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34(10), 1384-1393. doi: 10.1097/00004583-199610000-00026
- Golier J. & Yehuda R. (1998). Neuroendocrine activity and memory-related impairments in post- traumatic stress disorder. *Developmental Psychopathology*, 10, 857-869. doi: 10.1017/S0954579498001904

- Gunner, M., R., & Fisher, P.A. (2006). Bringing basic research on early experience and stress neurobiology to bear on preventive interventions for neglected and maltreated children. *Developmental and Psychopathology, 18*, 651-677. doi: 10.1017/S0954579406060330
- Hayling, C., Cook, C., Gresham, F., State, T., & Kern, L. (2008). An analysis of the status and stability of the behaviors of students with emotional and behavioral difficulties. *Journal of Behavioral Education, 17*(1), 24-42. doi: 10.1007/s10864-007-9059-5
- James, M. & Johnson, D.R. (1996). Drama therapy for the treatment of affective expression in posttraumatic stress disorder. (303-326). In *Knowing feeling: Affect, script, and psychotherapy*. D. Nathanson (Ed.). New York, NY: W.W. Norton & Company.
- Jennings, S. (2002). Embodiment-Projection-Role. Retrieved from <http://www.suejennings.com/epr.html>
- Johnson, D.R. (1982). Principles and techniques of drama therapy. *The Arts in Psychotherapy, 9*(2), 83-90. doi:10.1016/0197-4556(82)90011-9
- Johnson, D.R. (1987). The role of the creative arts therapies in the diagnosis and treatment of psychological trauma. *The Arts in Psychotherapy, 14*, 7-13. doi: 10.1002/jts.2490080209
- Johnson, D.R. (1995). The therapeutic use of ritual and ceremony in the treatment of post-traumatic stress disorder. *Journal of Traumatic Stress, 8*(2), 283-298.
- Johnson, D.R. (2000). Creative Therapies. (302-316). In E. Foa, R. Keane, & M. Friedman (Eds.) *Effective treatments for PTSD*. New York, NY: Guilford.

- Jones, P. (2007). *Drama as therapy: Theory, practice, and research*. New York, NY: Routledge.
- Jones, P. (2008). The active self: Drama therapy and philosophy. *The Arts in Psychotherapy*, 3, 224-231. doi: 10.1016/j.aip.2008.02.006
- Kirsch, V., Wilhelm, R.H., & Goldbeck,. (2011). Psychophysiological characteristics of PTSD in children and adolescents: A review of literature. *Journal of Traumatic Stress*, 24(2), 146-154. doi: 10.1002/jts.20620
- Klorer, P.G. (2005). Expressive therapy with severely maltreated children: Neuroscience contributions. *Art Therapy*, 22(4), 213-220. doi: 10.1080/07421656.2005.10129523
- Krystal, J. H., Kosten, T. R., Southwick, S., Mason, J. W., Perry, B. D., & Giller, E. L. (1999). Neurobiological aspects of PTSD: Review of clinical and preclinical studies. In M. J. Horowitz, M. J. Horowitz (Eds.) , *Essential papers on posttraumatic stress disorder* (pp. 274-300). New York, NY US: New York University Press. Retrieved from EBSCOhost.
- Lahad, M., Farhi, M., Leykin, D., Kaplansky, N. (2010). Preliminary study of a new integrative approach in treating post-traumatic stress disorder: SEE FAR CBT. *The Arts in Psychotherapy*, 37(5), 391-399. doi: 10.1016/aip.2010.07.003
- Landy, R. (1996). *Essays in dramatherapy: The double life*. Bristol, PA: Jessica Kingsley.
- Leeds, M. (2003). *The many faces of anger*. FACES: A national conference, mastering counseling skills with the masters, Sand Diego, October.
- Levine, P. (1997). *Waking the tiger: Healing trauma*. Berkeley, CA: North Atlantic.

- Levine, P. & Kline, M. (2007). *Trauma through a child's eyes*. Berkeley, CA: North Atlantic.
- Levy, D. M. (1945). Psychic trauma of operations in children. *American Journal of Diseases of Children*, 69, 697-25. Retrieved from EBSCOhost.
- Lowndes, B. (1971). *Movement and creative drama for children*. Boston, MA: Plays, Inc.
- Mayes, R., Bagwell, C., & Erkulwater, J. (2008). ADHD and the rise in stimulant use among children. *Harvard Review of Psychiatry*, 16(3), 151-166. doi: 10.1080/10673220802167782
- McCarthy, D. (2007). *If you turned into a monster*. Philadelphia, PA: Jessica Kingsley.
- Melrose, R. (2006a). *Why students underachieve*. Lanham, MD: Rowman & Littlefield Education.
- Melrose, R. (2006b). *Hope and healing: An activities book for adults working with school aged children*. San Francisco, CA: Bush Street.
- Melrose, R. (2009). *You can heal your child: A guide for parents of misdiagnosed, stressed, traumatized, and otherwise misunderstood children*. San Francisco, CA: Bush Street.
- Milot, T., Ethier, L.S., St-Laurent, D., & Provost, M.A. (2010). The role of trauma symptoms in the development of behavioral problems in maltreated preschoolers. *Child Abuse and Neglect*, 34(4), 225-234. doi: 10.1016/j.chiabu.2009.07.006
- Mitchell, S. (1992). Therapeutic theatre: A para-theatrical model of drama therapy. In S. Jennings (Ed.), *Dramatherapy: Theory and practice* (pp. 51-67). New York, NY: Routledge.

- National Institute of Mental Health. (2008). Attention deficit hyperactivity disorder. Bethesda (MD): National Institute of Mental Health, National Institutes of Health, U.S. Department of Health and Human Services. NIH Publication No. 08-3572. [Revised 2008; Accessed November 2009]. Retrieved from [http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/adhd\\_booklet.pdf](http://www.nimh.nih.gov/health/publications/attention-deficit-hyperactivity-disorder/adhd_booklet.pdf).
- Ogden, P. (2003). Building somatic resources: The theory and practice of sensorimotor psychotherapy in the treatment of trauma. *DAI: Section B*, 64(2-B), 972.
- Orr, S. P., Pitman, R. K., Lasko, N. B., & Herz, L. R. (1993). Psychophysiological assessment of posttraumatic stress disorder imagery in World War II and Korean combat veterans. *Journal of Abnormal Psychology*, 102(1), 152-159. doi:10.1037/0021-843X.102.1.152
- Pearson, J. (1996). *Discovering the self through drama and movement*. Bristol, PA: Jessica Kingsley.
- .Penzik, S. (2006). On dramatic reality and its therapeutic function in drama therapy. *The arts in Psychotherapy*, 33, 271-280. doi: 10.1016/j.aip.2006.03.001
- Perry, B. (2009). Examining child maltreatment through a neurodevelopmental lens: Clinical applications of the neurosequential model of therapeutics. *Journal of Loss and Trauma*, 14, 240-255. doi: 10.1080/15325020903004350
- Perry, B., Pollard, R., Blakley, T., Baker, W., Vigilante, D. (1995). Childhood trauma, the neurobiology of adaptation, and “use-dependent” development of the brain: how “states” become “traits”. *Infant Mental Health Journal*, 16(4), 271-291. Doi:10.1002/1097-0355(199524)16:4<271::AID-IMHJ2280160404>3.0.CO;2-B

- Rolfesnes, E., & Idsoe, T. (2011). School-based intervention programs for PTSD symptoms: A review and meta-analysis. *Journal of Traumatic Stress, 24*(2), 155-165. doi: 10.1002/jts
- Saxe, G. N., Chinman, G., Berkowitz, R., & Hall, K. (1994). Somatization in patients with dissociative disorders. *The American Journal of Psychiatry, 151*(9), 1329-1334. Retrieved from EBSCOhost.
- Schore, A. N. (2002). Dysregulation of the right brain: A fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. *Australian and New Zealand Journal of Psychiatry, 36*(1), 9-30. doi:10.1046/j.1440-1614.2002.00996.x
- Spolin, V. (1986). *Theater games for the classroom*. Evanston, IL: Northwestern University.
- Terr, L. C. (1995). Childhood traumas: An outline and overview. In G. R. Everly, J. M. Lating, & J. M. Lating (Eds.), *Psychotraumatology: Key papers and core concepts in post-traumatic stress* (pp. 301-320). New York, NY US: Plenum Press. Retrieved from EBSCOhost.
- Thurmond, V. (2001). The point of triangulation. *Journal of Nursing Scholarship, 33*(3), 253-258. doi: 10.1111/j.1547-5069.2001.00253.x
- Van der Kolk, B.A., Greenberg, M.S., Boyd, H., & Krystal, J.H. (1985). Inescapable shock, neurotransmitters and addiction to trauma: Towards a psychobiology of post traumatic stress. *Biological Psychiatry, 30*, 314-325.
- Van der Kolk, B. A. (1999). The body keeps the score: Memory and the evolving psychobiology of posttraumatic stress. In M. J. Horowitz, M. J. Horowitz (Eds.)

- Essential papers on posttraumatic stress disorder* (pp. 301-326). New York, NY US: New York University Press. Retrieved from EBSCOhost.
- Van der Kolk, B.A. (2003). The neurobiology of childhood trauma and abuse. *Child and Adolescent Psychiatric Clinics of North America*, 12, 293-317. doi: 10.1016/S1056-4993(03)00003-8
- Vaughan, J. (2011). Research conversation with Jay Vaughan. In P. Jones (Ed.), *Drama as therapy: Theory, practice, research* (pp. 91-93). New York, NY: Routledge.
- Waller, G., Hamilton, K., Elliot, P., Lewedon, J., Stopa, L., Water, A., Kennedy, F., Lee, G., Pearson, D., Kennerley, H., Hargreaves, I., Bashford, V., & Chalkley, J. (2001). Somatoform dissociation, psychological dissociation, and specific forms of trauma. *Journal of Trauma & Dissociation*, 1(4), 81-98. doi: 10.1300/J229v01n04\_05
- Young, L. (1992). Sexual abuse and the problem of embodiment. *Child Abuse and Neglect*, 16, 89-100. doi: 10.1016/0145-2134(92)90010-O
- Watts, P. (1992). In S. Jennings (Ed.) *Dramatherapy: Theory and practice* (2<sup>nd</sup> ed., pp. 38-50). New York, NY: Routledge.