

COMPLEX TRAUMA AND EARLY CHILDHOOD EDUCATORS

by

Christine Jackson

B.S.W, University of Northern British Columbia, 2007

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTERS EDUCATION
IN
COUNSELLING

UNIVERSITY of NORTHERN
BRITISH COLUMBIA,
LIBRARY
Prince George, B.C.

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

April 2013

© Christine Jackson, 2013

Abstract

Despite society's efforts to protect children from harm, many undergo profoundly distressing life experiences that powerfully affect their development and functioning. There is sufficient evidence documenting that psychological trauma in childhood is widespread. The intent of this project was to create a manual to increase educators' understanding of complex trauma by including information about developmental trauma, the impact on children, and intervention strategies. Moreover, it will foster educators' affective and intellectual awareness and capacity to support children and families impacted by complex trauma in early care and learning environments.

Table of Contents

Abstract	ii
Table of Contents	iii
List of Tables	viii
Acknowledgement	ix
Introduction.....	1
Personal Location	2
Significance of Topic	4
Rationale and Purpose.....	6
Literature Review.....	9
Learning Theory and Complex Trauma Learning.....	9
Complex Trauma and Learning.....	12
Manual Overview.....	14
Chapter 1: What is Complex Trauma?.....	16
Defining Developmental Trauma Disorder.....	16
Impact of Complex Trauma on Development.....	19
What Role Can Early Childhood Educators Play?.....	25
Chapter 2: Attachment	27
What is Attachment?	27
The Purpose of Attachment.....	28
Attachment Styles	30
Case Scenario	35
Questions for Reflection.....	36

Discussion Points	36
Attachment and Trauma	37
Case Study.....	38
Questions for Reflection.....	39
Role of Early Childhood Educators	39
Chapter 3 – The Developing Brain and Trauma.....	42
General Structure of the Brain	44
The Brain Stem.....	44
Limbic System.....	44
Cortex and Neocortex.....	46
Neurobiology and Trauma	47
Stress and Memory.....	49
Memory	50
Chapter 4: How does Trauma Impact a Child’s Development?	52
Emotions.....	54
Social and Behavioural.....	55
Cognition.....	57
Chapter 5: “If You’re Sad and You Know It”	60
Emotions and the Brain	61
Role of Attachment	61
Role of Self-Regulation.....	63
Role of Affect Regulation	64
Other Skill Enhancing Activities	66
‘Take Space.’	66

Feeling Thermometer	66
Grounding Activities.	66
3-2-1 Sensory Grounding	66
Mindfulness	67
Mindful walking	67
The Raisin Meditation	67
Comfort Boxes.....	68
Emotional Literacy	68
Books	68
The Role of Early Childhood Educators	69
Chapter 6: A Different Perspective on Guidance	70
Possible Reasons for the Behaviour	71
Attachment Framework.....	75
Role of the Early Childhood Educator	75
Tips and Strategies for the Early Childhood Educator.....	76
Avoid Talking at the Child	76
Create Safety.....	76
Attunement.	76
Opportunity for Recovery.....	77
Routine and Predictability	77
Assist with the Management of Arousal.....	78
Chapter 7: The “Resilience Factor”	80
A Resilience Perspective.....	80
Secure Attachment as a Protective Factor.....	81

Adversity and Risk Factors	82
Resilience and Childhood Trauma	83
The Role of the Early Childhood Educator in Promoting Resilience	83
Case Scenario	84
Questions for Reflection.....	85
Discussion Points	85
Promoting Resilience	85
Strong One-on-One Relationships.....	86
Create Stable and Predictable Schedules and Routines.....	86
Track Behavioural Cues	86
Be an Emotionally Literate Educator	86
Be an Interpreter	86
Create Safe Spaces.....	87
Be a Resilient Thinker	87
Promote Classroom Well-Being.....	87
Connect Children to Sensory Relaxation Activities in Nature	88
Adopt a Classroom Pet	88
Chapter 8: Don't Forget About Yourself!.....	90
What is Involved with Caring?.....	90
Signs of Vicarious Trauma.....	92
Taking Care.....	93
Stress Management	94
Supervision and Mentoring.....	95
A Moment for Reflection	95

More Self-Care Ideas	95
Take stock- What's on your plate?	95
Start a Self-Care Idea Collection.	96
Have a transition from work to home.....	96
Concluding Thoughts.....	98
References.....	99

Acknowledgement

This project would not have come to fruition without the encouragement, support, patience, and dedication of many individuals. Thank you to my supervisor Linda O'Neill, whose dedication, expertise, and encouragement helped make this project a reality. Thank you to my committee members Corinne Koehn and Clarie Johnson for your patience, expertise, and guidance.

Along the way many family members, friends, and colleagues offered inspiration, support, time, and understanding. Thank you for being who you are and for always being there for me.

To the children who have touched my life. They have shared their wisdom, their strength, and their compassion. Without their stories, struggles, and heartache this project would not have been created.

To my partner Ken, thank you for believing in me, for holding down the fort, and for reminding me that life is not just about school and work activities, but so much more!

Introduction

Many children, infants, toddlers, and preschoolers have been exposed to domestic violence, child abuse and neglect, accidents, natural disasters, and war and are living with the effects of trauma. Young children are vulnerable, in the short and long term, to experiencing adverse outcomes from these traumatic experiences because they are undergoing a rapid developmental period, have limited coping skills, and are strongly dependent on their primary caregivers to protect them physically and emotionally. Brom, Pat-Horenczyk, and Ford (2009) suggest that children who have been exposed to trauma have almost twice the rate of psychiatric disorders as those not exposed, particularly in the presentation of anxiety and depressive disorders.

Although millions of young children experience trauma every year, it is a population that has been largely neglected until recently (De Young, Kenardy, & Cobham, 2011). Some children, who are adversely impacted, show incredible resilience in overcoming their initial stress or trauma and get back on their developmental trajectory. Others seem to alternate between periods of resilient recovery and periods of recurrent distress and dysfunction. Still, other children never seem to fully overcome the impact of psychological trauma and instead develop chronic psychological, behavioural, and medical problems that may persist for the rest of their lives, possibly becoming more extensive and severe over time (Brom et al., 2009). Young children affected by trauma can be found in childcare centres, family childcare settings, Head Start Programs, and other early intervention programs. The relationships that children build and the care they receive in quality early childhood programs can instil the strength needed to cope with these traumatic experiences.

This manual provides early childhood educators with knowledge on complex trauma, an understanding of the impact of trauma on children's development ages two to five, and various intervention strategies. Moreover, it fosters educators' affective and intellectual awareness and capacity to support children and families impacted by complex trauma in early care and learning environments.

Personal Location

Many years ago a set of siblings, Kevin and Jason, entered my life. I was still in the early stages of my early childhood career and what I had learned up to that point was no match for these two children. They were fluent in profanity, had wickedly-accurate throwing arms, and conspired well together. Kevin and Jason attended full days with few breaks from the centre. The time spent with these boys, and others during that same year, was very difficult, and many times I contemplated my career choice. What I did not know at the time was how that year marked the beginning of my search for another way of being as an educator.

During the first few years of my career, I learned some classroom management and guidance techniques, such as the necessity of providing clear guidelines and, in some instances, time-outs, from teachers with far more experience than me. It seemed that with each technique I tried I gained more and more control over the children in my care, or at least the illusion of control. I thought if the boys were given a bit more guidance and experienced some consequences they would become less stubborn and less overwhelming. If I tried harder, became sterner, used more behaviour modification techniques, maybe I could be the one to change the behaviour. If they wouldn't sit still I would help them be still, or if they hurt children during the day they sometimes missed out on outdoor play, or other experiences, even though that was

probably exactly what they needed. As their troubling behaviour escalated, my colleagues and I seemed to increase the consequences. As one might guess, the boys' behaviour only became more intense. I knew my approach was not working for any of us. I didn't know why, or what else I could do, and was left exasperated most days.

Looking back on my time with the children that year, I realize I was not being the educator I wanted to be. I was in constant power struggles with the children and trying to stay one step ahead of them at all times. This was exhausting, frustrating, and disappointing. After this difficult time in my career, I began to wonder in a deeper way about what I wanted for the children and myself, often asking the question, "Is this how I want to practice to be?" I knew it was time to make some changes in my practice, but I had no idea how or with what to replace the old strategies.

I have had the honour of being in the field of early childhood education for 24 years. Sadly, Kevin and Jason are not the only children that I have met with what would be called "challenging" behaviours. I witnessed their struggles, heard them be labelled as "bad kids," and saw their teachers roll their eyes and sigh with disappointment upon seeing the child(ren) walk through the doors in the morning. I realized that there had to be another way. I also knew that I was not the only person who had struggled with understanding, supporting, and advocating for these children. Early Childhood Educators often feel underappreciated, overworked, and under resourced, especially, when they have children like Kevin and Jason in their programs. Seeing the children and the educators struggle over the years, I felt my mind and heart grow heavy. My time in the field of early childhood education has been one of growth, both personally and professionally. Personally, I have grown into a compassionate, understanding, and determined

educator and advocate. Professionally, my philosophy has become defined, shaped, and strengthened by my desire to find the “best” in others and to give a voice to those who may not otherwise be heard.

Significance of Topic

The field of complex trauma has grown with a deepened appreciation for the magnitude of the problem. Over the past two decades, this expanded information offers hope to children, families, early childhood educators, and other human service professionals as we learn specialized techniques for supporting this population (De Young et al., 2011). Children and families can successfully manage traumatic experiences with the support from early childhood professionals and others who understand children and trauma, and have the skills to support children and families.

Early childhood educators have met children who have experienced traumatic events, have lived in high-stress environments, or who are currently in a high-stress environment. A three-year-old girl bites a boy, breaking the skin, because he brushed against the girl in the process of sitting down in circle. A four-year-old boy clears off the shelves then pushes the shelves over because he was asked to put his toys away before going outdoors. And another boy sobs for a long period of time upon being dropped off that morning and is inconsolable. The three-year-old girl has often had to fend for herself in a family with a history of violence. She is hypersensitive to perceived threat and too quick to react when someone intrudes. For the four-year-old boy, experience has taught him that he is on his own. His high adrenaline and cortisol levels leave his body in a state of high alert and ready for action, suppressing the higher level brain functions that may have helped him to remember to use his language to express his

feelings, or to ask for assistance from an adult. The boy who sobs for a long time is fearful that the separation may be permanent because he has been removed from the care of his biological mother, and no one has shared with him what is happening, nor have they acknowledged his worries.

Loss of ability to modulate the intensity of feelings and impulses is possibly the most far-reaching effect of trauma and neglect (van der Kolk, 1994). This inability to adjust these intense emotions gives rise to a range of behaviours that are best understood as attempts at self-regulation. Some of these behaviours include aggression against others, self-destructive behaviour, eating disorders, and substance abuse. Children who have been traumatized often have difficulties developing the capacity to express specific and “differentiated emotions” (Koplow, 2007; van der Kolk, 1994). Their difficulty with putting feelings into words interferes with their capacity to regulate their experience – to calm themselves, to soothe themselves, to interact in appropriate ways with other people, and to learn from their behaviour, which promotes acting out.

Without understanding these children’s early experiences and how these early experiences impact their developing brains and overall development, educators may unknowingly trigger and escalate the children’s behaviours or leave them feeling alone, silenced, or judged. Those with difficult and challenging behaviours do not bring out the best in peers or adults, resulting in poor connections and struggling relationships. When children and adults react to the behaviours of such children in a rejecting, stigmatizing, or punitive manner, they reinforce a negative self-image that is in the process of forming. Unfortunately, the result can be that the children who need us to be emotionally attached are the same children who are the most skilled

at pushing us away. Researchers, like van der Kolk (2005), suggest that affective dysregulation can be lessened by safe attachments with caregivers. This type of attachment plays a critical role in helping children develop a capacity to regulate physiological arousal (van der Kolk, 2005, p. 406).

Complex trauma is a term used to describe the problems of children's exposure to multiple or prolonged traumatic events and the impact of this exposure on their development. Typically, this type of trauma involves the simultaneous or sequential occurrence of child maltreatment, including psychological maltreatment, neglect, physical and sexual abuse and domestic violence that is chronic, begins in early childhood, and often occurs within the primary caregiving system. Exposure to these types of traumatic experiences can result in emotional dysregulation, loss of safety, and the ability to detect or respond to danger cues. In the longer term, it may result in setting off a chain of events leading to subsequent or repeated trauma exposure in adolescence and adulthood (National Child Traumatic Stress Network, n.d.).

Rationale and Purpose

Early Childhood Education encompasses children from infancy to preschool (0-5 years), the age period that is widely considered the most vulnerable and crucial stage in a person's life. This is also the time when childhood trauma is significant because terrifying experiences during this age period may have their most profound effects on the developing child. The central nervous system and cognitive functions have not fully matured, leading to the possibility of global impairment that may be manifested in adulthood psychopathological conditions (van der Kolk, 1994). In spite of the growing evidence regarding effects of trauma on the developing child, there is little information provided to Early Childhood Educators, despite the important

role they play in the lives of children who have been impacted by trauma. For example, this topic is briefly discussed in the Early Childhood Education curriculum, taught at the local college, and has only recently become a topic explored in workshops and conferences. During my time as a Bachelor of Social Work student, the topic of early childhood traumatology was given a brief mention throughout the two year program. It was not until my Masters of Education in Counselling that this topic was given the time and expertise it deserved, ultimately, inspiring me to respond with the creation of this manual for Early Childhood Educators. Courtois and Gold (2009) confirm my experience saying that “despite the establishment of a solid base of scientific literature on trauma and the growing attunement of society and the media to the adverse psychological and societal impact of traumatic events this area has yet to be incorporated into core curriculum of graduate training in psychology and other professions” (p.10). As a result, only a small number of students across human services, criminal justice, public health, medical and behavioural sciences, and education receive any formal training in this vital area. The vast majority of professionals interested in developing expertise in this area must find a way to accomplish it on their own after their formal education is completed. These individuals often rely on their own selection of reading material, specialized conferences, and continuing education to further knowledge and skills.

The growing field of trauma counselling presents important literature and techniques for Early Childhood Educators. This manual provides the reader with another perspective or an affirmation of his or her current practice. Instead of seeing the child’s behaviour, I want readers to see the whole child and to remember each child comes to an early childhood program with his or her own story. Our role as Early Childhood Educators is to learn their stories. This manual

assists educators in learning, and understanding, the important and necessary stories that children bring. It may also be used to gain insight into the children in educators' care, to find strategies to implement in child care programs, and to develop in-services. Complex trauma is a sensitive topic. With that in mind, some adults have their own traumatic histories and may learn new material in different ways. Along with an overview of adult learning theory, I explore some key factors to be considered when presenting material of a sensitive nature.

Literature Review

Teaching Complex Trauma

In recent years greater emphasis has been placed on education and training in the field of trauma and trauma psychology. As this movement unfolds, researchers suggest it will be necessary to integrate basic trauma knowledge in undergraduate and graduate psychology programs and to develop education and training modules (Courtois & Gold, 2009). Traditionally, the courses have been an add-on that is not embedded in the rest of the curriculum. Courtois and Gold (2009) feel an inclusive approach would be more effective because the research and skills could be transferred to multiple learning experiences such as clinical training courses, practicum, internships, and in research training. In addition to the inclusion of general material, a variety of topics could be offered as specializations such as trauma theory, trauma and its effect across the lifespan, risk and resilience factors, attachment and relational trauma, trauma memory and cognition, cultural competency in trauma, child abuse and the developmental impact to name a few (Courtois & Gold, 2009).

Adult Learning Theory

Adult learning theory referred to as andragogy, the art and science of helping adults learn, has a long rich history that has shaped the understanding of adult learning and continues to be a strong force, guiding the way adults learn. The notion of learning refers to a wide variety of changes in an individual caused by experience. Learners enter the learning environment with varying experience, backgrounds, and expectations, and the contexts within which learning takes place have subsequently changed (Akiba & Alkins, 2010).

Much of the adult learning theory comes from the organizational development field (OD) where the focus on learning theory is seen as a way of providing employees with tools needed to perform well in the workplace. OD practitioners coined the term andragogy to recognize the needs and features of this distinct learning population and to separate adult learning theory from traditional pedagogy (Kenner & Weinerman, 2011). Building upon theories from organizational development, four principles characterizing adult learners were identified: (1) they are self-directed, take responsibility for their own actions, and oppose information that is arbitrarily imposed upon them; (2) they have experience; (3) they are ready to learn and, therefore, more likely to engage in the learning process. Lastly, they tend to be task-motivated and are more likely to want to cooperate with the teacher as they proceed through their learning process (Kenner & Weinerman, 2011, p. 92).

This manual provides early childhood educators with the knowledge and tools effective in supporting children who may have experienced an event they are reacting to as traumatic. It is my belief that educators who read this manual will bring their personal and professional experiences to it. Therefore, I want people to know that their existing knowledge and experiences are invaluable to the work they do: this manual is a vehicle that affirms that knowledge and builds on existing knowledge and skills.

Another characteristic of andragogy of adult learning is their orientation to learning (Holyoke & Larson, 2009). Adult learners often want to see how their knowledge can be applied to their lives whether it is improving their job performance, coming up with creative ideas for their workplace, or devising ideas about how to handle family situations. Holyoke and Larson (2009) suggest adding flexibility in course requirements to help the learner find ways to apply

knowledge to personal situations. When others share their real life applications of the content, others may be invited to think of how the same knowledge could be applied to their own situations.

Time Considerations

Crisis and general feelings of hopelessness drive people, in some instances, to look for a quick fix and, in other instances, to glean information about how to develop a long term plan for themselves, the child(ren), and the program. Time is fleeting for many front line practitioners, so they want to get the most relevant and practical information in the shortest period of time. To achieve this, people scan the material they have gathered and focus on the areas with the most relevancy. Early childhood educators are no exception as they have limited work time to read lengthy manuals and books; often they use their personal time to find that little tidbit of information to lessen the feelings of hopelessness and ineffectiveness often experienced in this work. This is a manual, so the material may be best understood by reviewing it in its entirety; however, I want people to know the manual has flexibility. People may browse the sections and focus on the pertinent knowledge and skills.

Culturally Responsive Teaching

As mentioned earlier, the material may also be used to develop workshops or in-services. Wlodkowski and Ginsberg (1995) offer facilitators some elements of culturally responsive teaching for consideration. The first element is inclusion, supporting the learner in feeling respected and connected to others so they know they are key contributors. Everyone comes to a new learning experience with knowledge. Facilitators can draw upon this knowledge through the use of discussions and open-ended questions. The next element is the creation of a favourable

environment, intended to increase the likelihood that the learner will want to learn and find relevance in the topic in order to make it applicable to individual life situations. When facilitators use the knowledge of the group, people feel valued, increasing the likelihood they will continue to contribute to the learning process. It is important to view the individual's experiences as an asset.

Cultural competency is an area for facilitators to place emphasis on (Courtois & Gold, 2009). The impact and experience of trauma, as well as response to, is largely influenced by the unique perspective of culture, ethnicity, gender, sexual orientation, age, and disability status of the individual encountering the traumatic event, as well as the personal characteristics and previous history of the individual (Brown, 2008). Learners should be oriented to the importance of these factors in forming a working alliance and "understanding perceptual and experiential frameworks through which survivors make sense of and react to the trauma" (Brown, 2008, p. 17).

Complex Trauma and Learning

Creating safety is paramount for participants in trauma-focused training. Studying this topic may elicit strong emotional reactions among those who have experienced traumatic events and those who have not. The material may also cause discomfort and anxiety. Therefore, the onus is on the facilitator to help learners recognize, accept, and manage their reactions to the material being presented and discussed. Without safety, learners are unlikely to share difficulties and the self-questioning that inevitably arises. These types of reactions are common; expressing and addressing them is accepted. Recognizing and acknowledging one's own responses is an essential component of supporting individuals with a trauma history (Courtois & Gold, 2009).

Thus, research suggests using a relational framework may be the most effective approach when developing in-services or curricula (Courtois & Gold, 2009, p.15). This perspective, among other suggestions, asks facilitators to model humanness, openness, and to acknowledge their own struggles with the stressors of working with individuals impacted by trauma. Doing so supports learners in gaining the knowledge and resilience needed to engage with traumatized individuals with compassion and appreciation for what they have been through.

The creation and promotion of safety provides a space for people to discuss the power and privilege of the facilitator and the learners. This requires the facilitator to not only be knowledgeable about trauma in children and adults, but also to have skills in addressing perceptions of trauma, stigma, and the dynamics of power.

Another issue important for facilitators to understand is that feeling comfortable and knowledgeable in this area is a developmental process (Courtois & Gold, 2009). Some learners will understand the literature and research at an intellectual level; however, it is also necessary to comprehend trauma and its impact on an experiential level (Courtois & Gold, 2009, p.17). When preparing the material, facilitators need to ensure that there is a balance between literature and research, scenarios and/or group discussion so individuals can share their personal experiences. I have attempted to provide such balance in the organization of material for early childhood educators on complex trauma. The information from the literature provided me with a framework for the development of this manual.

Manual Overview

Many children have had their lives changed forever due to multiple traumatic events that are interpersonal in nature. Kaffman (2009) suggests childhood exposure to an interpersonal traumatic stressor is extremely common and has been described as a silent epidemic. Worldwide, approximately one third of children are estimated to experience physical abuse; approximately, one in four girls and one in five boys experience sexual victimization (Anda et al., 1999).

Without question, these statistics prove that these children are in early childhood programs. Some will be noticeably struggling through their days, and others will struggle in silence. This manual provides early childhood educators with some current knowledge of complex trauma so they can respond to children living with complex trauma with understanding and compassion.

The manual is divided into sections: it may be read like a book or it may be used as a quick reference for readers who want to go directly to the section that covers a topic that is most pressing in the moment. Chapter One provides the reader with a definition of complex trauma, outlines the impact complex trauma has on young children, and discusses the important role early childhood educators have in the lives of these children. Chapter Two looks briefly at the theory of attachment and the vital role strong attachments have in children's development. It also examines the impact of trauma on attachment styles and suggests how early childhood educators can become strong attachment figures in children's lives. Chapter Three provides an overview of neurobiology and the relationship between neurobiology and trauma. Chapter Four discusses the significant impact of complex trauma on children's overall development, specifically the areas of emotional competence, social and behavioural competence, and cognitive competence. Chapter

Five examines emotions, trauma, and attachment relationships in more detail and includes a few programming ideas that can be used one-on-one or in groups to build capacity within the children. Chapter Six invites the reader to consider children's behaviour through a trauma-informed lens and offers alternative ways of viewing traditional guidance approaches. This chapter emphasizes empowerment and hope. Chapter Seven reminds readers of children's capacity for resilience and the opportunity early childhood educators have to nourish children's resilience. Lastly, Chapter Eight reminds educators that caring, supporting, and understanding children with complex trauma histories take its toll on people's minds, bodies, and spirits. In this chapter, early childhood educators are reminded take care of themselves. The chapter ends with a few practical and creative ways to achieve and maintain well-being and balance.

Early childhood educators play a significant role in the lives of children and families on a daily basis. I hope this manual provides early childhood educators with knowledge and tools to continue doing this incredibly important job.

Chapter 1: What is Complex Trauma?

Despite society's efforts to protect children from harm, many undergo profoundly distressing life experiences that powerfully affect their development and functioning. There is sufficient evidence documenting that psychological trauma in childhood is widespread (Layne et al., 2011). Courtois and Gold (2009) point to the lack of training concerning trauma in graduate education in psychology, social work, and other professions despite the fact that in recent years there has been greater emphasis placed on education and training in trauma psychology. Along with this identified lack of trauma training at the graduate level is a gap in certificate and diploma programs such as Early Childhood Education. In addition, as more and more educators become aware of the far reaching adverse consequence of childhood trauma-informed workforce has become apparent. A great place to start is in an Early Childhood Education setting. These settings may be a part of a positive environment for children who are living with complex trauma, and their caregivers should be a part of the trauma-informed workforce.

Defining Developmental Trauma Disorder

Trauma is an experience in which powerful and dangerous events overwhelm a person's capacity to cope. When children are traumatized, they are experiencing reactions to the trauma that affect their ability to function. Trauma is often considered an exceptional experience, an experience that is powerful, shocking, and extraordinary with a highly unusual occurrence (Fitzgerald-Rice & McAlister-Groves, 2005). Everyone has the ability to cope with stress and trauma; however, children's ability is limited for a number of reasons. First, they have developed fewer coping skills, or strategies, than adults. Next, a child's age, developmental stage, and temperament affect the child's ability to manage overwhelming experiences (Fitzgerald-Rice &

McAlister-Groves, 2005, p. 4). For example, a young child who is temperamentally more fearful may have a harder time coping with trauma than a child who is older and less anxious. Children also have to rely on their caregivers' ability to help them cope with the event or experience. If those people, or other familiar adults, are unavailable or unable to help the child, the child is more likely to be overwhelmed by the traumatic event (s) (Fitzgerald-Rice & McAlister-Groves, 2005, p.4).

The traumatic stress field has adopted the terms "complex trauma" or "developmental trauma disorder" to describe people's experiences with multiple and/or chronic prolonged developmentally adverse traumatic events, most often of an interpersonal nature (within a child's caregiving system) and early life onset (between birth and five years of age) (Courtois & Gold, 2009; van der Kolk, 2005). In contrast to complex trauma, acute trauma is often referred to as a single traumatic event, such as a serious motor vehicle accident, that overpowers the child's ability to cope (Fitzgerald-Rice & McAlister-Groves, 2005). Generally speaking, complex trauma occurs within the child's caregiving system and may include physical, emotional, and educational neglect and maltreatment. This disorder is marked by a wide range of challenges including difficulties involving cognitive, affective, somatic, behavioural, relationship, and self-attributional issues (Courtois & Gold, 2009; van der Kolk, 2005). (See Table 1).

Between 1995 and 1997, the Kaiser Permanente and Center for Disease Control (CDC) conducted a study led by Dr. Anda, with CDC, and Dr. Felitti, with Kaiser Permanente, where over 17,000 patients voluntarily participated in routine health screening. The intent of the study was to determine the relationship between childhood maltreatment and family stress (referred to as "adverse childhood experiences") and later outcomes in childhood.

Table 1
Developmental Trauma Disorder

A. Exposure

- Multiple or chronic exposure to one or more forms of developmentally adverse interpersonal trauma (eg, abandonment, betrayal, physical assaults, sexual assaults, threats to bodily integrity, coercive practices, emotional abuse, witnessing violence and death)
- Subjective experience (eg, rage, betrayal, fear, resignation, defeat, shame)

B. Triggered Pattern of Repeated Dysregulation in Response to Trauma Cues

Dysregulation (high or low) in presence of cues. Changes persist and do not return to baseline; not reduced in intensity by conscious awareness.

- Affective
- Somatic (eg, physiological, motoric, medical)
- Behavioural (eg, re-enactment or cutting)
- Cognitive (eg, thinking that it is happening again, confusion, dissociation, depersonalization)
- Relational (eg, clinging, oppositional, distrustful, compliant)
- Self-attribution (eg, self-hate, blame)

C. Persistently Altered Attributions and Expectancies

- Negative self-attribution
- Distrust of protective caregivers
- Loss of expectancy of protection of others
- Loss of trust in social agencies to protect
- Lack of recourse to social justice/retribution
- Inevitability of future victimization

D. Functional Impairment

- Educational
- Familial
- Peer
- Legal
- Vocational

(van der Kolk, 2005, p. 404).

The results show overwhelming proof of the health, social, and economic impacts resulting from childhood trauma. The Adverse Childhood Experiences (ACE) study is one of the largest studies conducted that examines the linkage between child maltreatment and later life health and well-being.

The study further demonstrated that adverse childhood experiences are more common than previously thought and are powerful predictors of later adult health. For example, the results

found a significant relationship between adverse childhood experiences and depression, drug and alcohol misuse, sexual promiscuity, domestic violence, and obesity. The study also highlighted the greater number of adverse experiences, the more likely the person was to experience cancer, heart disease, stroke, diabetes, skeletal fractures, and liver disease (van der Kolk, 2005, p. 402).

Another important study supporting the need for understanding complex trauma is the Canadian Incidence Study of Reported Child Abuse and Neglect (CIS) (Trocme et al., 2005). The CIS study reported that the rate of substantiated maltreatment cases in Canada increased 125 percent from 2003. The ACE study and the CIS national child health survey provide evidence of the long term consequences of untreated trauma and maltreatment (Felitti et al., 1998), which furthers the need for an inquiry into complex trauma so early childhood educators, and others, have a deeper understanding of the range of challenges these children experience.

Impact of Complex Trauma on Development

Clinicians have struggled for several decades in deciding how to organize, or define, the “complex behaviours, emotions, and neurobiological sequelae of childhood trauma” (van der Kolk, 2005, p. 403). Children are often given the label of Post-Traumatic Stress Disorder (PTSD) because the DSM-IV includes a diagnosis for adult onset trauma. The literature, however, suggests this is no longer an appropriate fit because a majority of the traumatized children do not meet the diagnostic criteria for PTSD as it does not capture the number of exposures over critical developmental periods (p. 403). Additionally, the developmental effects of childhood trauma, for example, problems with self-regulation, aggression against self and others, problems with attention and dissociation, physical problems, difficulties in self-concept, and the capacity to negotiate acceptable interpersonal unexpected relationships are excluded (p. 403).

Table 2
The Impact of Traumatic Events Depend On

A. The Child

- Age
- Developmental stage
- Temperament
- Developmental delay
- History of emotional or behavioural problems

B. The Traumatic Event

- Acute trauma
- Chronic Trauma
- Intensity
- Child's proximity to traumatic event
- Injury to the primary caregiver
- Loss of the primary caregiver
- Extent of physical injury to child

C. The Social Environment

- Availability of the parent or other primary caregiver as a support to the child
- Ability of the parent or other primary caregiver to help the child cope
- Level of family stress and coping ability prior to traumatic event
- Ability of the family to cope with current stressors
- Family routines and stability
- Availability of social supports in the community

(Fitzgerald-Rice & McAlister-Groves, 2005, p. 10)

In addition to the trauma factors listed in table 2, trauma also presents differently depending on the nature and frequency of the trauma. Terr (1991) proposes that childhood traumas can be categorized into Type I or Type II traumas. Type I refers to acute single incident events (i.e. an event that is "out of the blue" such as a traumatic accident or a natural disaster, a single episode of abuse or assault, witnessing violence) and Type II refers to complex or repetitive trauma such as ongoing abuse, domestic violence, war or genocide. Reactions to Type I traumas are more likely to fit the cluster of PTSD symptoms; however, Type II traumas are more closely related to the cluster of difficulties related to complex trauma (van der Kolk, 2005).

It is important to remember that every child who is exposed to a traumatic event will have a unique experience. Variables such as the type of traumatic event, the child's age, and his or her developmental stage will influence how powerful and dangerous the traumatic event feels to the child. The meaning ascribed by the child to the event and the way in which the child responds to and copes with the event(s) will be highly influenced by the child's caregiving environment and the availability of social supports such as the presence of risk and protective factors (Fitzgerald-Rice & McAlister-Groves, 2005).

The presence of risk and protective factors within a child's family and community greatly influence a child's reaction to a traumatic event. Risk factors increase vulnerability to experiencing trauma after a traumatic event and are accumulative in nature. The risk of poor life outcomes rises sharply as the number of risk factors increase. Protective factors decrease the likelihood that a person will experience severe and enduring trauma reactions and are accumulative in nature. Many protective factors are simply the reverse of a risk factor. Risk factors, such as a lack of support from neighbours or extended family, increase the chances that a powerful, dangerous experience will overwhelm the child's capacity to cope. On the other hand, protective factors, such as a stable home environment, can help a child successfully cope with an adverse experience. The adult-child relationship is the most crucial protective or risk factor for children exposed to traumatic events. Table 3 outlines a number of possible risk and protective factors and are not intended to be in cause-effect or relationship order.

Children who live with complex trauma have likely been exposed to an environment marked with multiple and chronic stressors, often with the caregiving system intended to be the child's primary source of safety and stability. The cumulative influence of these experiences is

seen on immediate and long-term behavioural, functional, and mental health outcomes. There is growing consensus that early-onset and chronic trauma results in an array of vulnerabilities across seven areas of functioning (Aideus, 2007; Cook et al., 2005; Perry, 2002).

Table 3

Risk and Protective Factors

A. Risk Factors

- Trauma (exposure to violence and/or abuse and/or neglect and/or experience of early loss)
- Poverty with associated chronic and episodic crises and stressors
- Community risk
- Lack of prenatal care and/or poor prenatal nutrition
- Prenatal substance abuse/or substance abuse during pregnancy
- Teenage parenthood
- Parental mental illness
- Parental criminality
- Parents who have not experienced nurturing parenting
- Large family size (more than four children)
- Marital discord
- Poor temperamental fit between caregiver and child

B. Protective Factors

- Warm, caring, nurturing, contextually and experientially rich, stimulating environment that provides opportunity for sensory experience and promotes attachment to caregiver
- Stability, security, and structure; low distress
- Safe community
- Good prenatal care
- Close bond with primary caregiver who need not be biological parent
- Parental competence/education
- Supportive grandparents/supportive siblings
- Supportive teachers/ successful school experiences
- Parents with good parenting skills
- Small family size (less than four children)
- Family harmony
- Personal characteristics of child: low emotionality; active, alert, high vigor, drive sociability; easy, engaging temperament (affectionate, cuddly); self-help skills; above average intelligence (language and problem-solving skills) (Werner & Smith, 1989)

The first area is attachment: the child experiences uncertainty about the reliability and predictability of the world; social isolation; distrust and suspicion; interpersonal difficulties such as conflict with parents/caregivers, siblings, peers, and teachers; difficulty attuning to the emotional state of others; and misunderstanding and misinterpretation social cues (Cook et al.,

2005; Koplow, 2007). The second domain is biology: the child experiences symptoms such as sensory processing issues manifested as hypersensitivity to physical contact; analgesia (absence of sensitivity to pain); upper body weakness; problems with coordination, balance, body tone; sensitivity to sounds, tastes and smells; various somatic illnesses manifested as headaches, stomachaches, and limb pain; and increased medical problems (Aideus, 2007; Cook et al., 2005). The third domain includes affect or emotional regulation: difficulty de-escalating; chronic and pervasive depressed mood or sense of emptiness; chronic preoccupation with suicide; difficulty describing feelings and internal experience; and explosive anger or inhibited anger (Aideus, 2007). Dissociation is the fourth domain: distinct alterations in states of consciousness, amnesia, depersonalization and de-realization (Cook et al., 2005). The fifth is behavioral control: poor modulation of impulses, self-destructive behaviors (self-injury), aggressive behavior, sleep disturbances, eating disorders, substance abuse, difficulty understanding and complying with rules, and oppositional behaviors or excessive compliance (p.392). The sixth domain is cognition: difficulty in attention regulation and executive functioning, problems focusing on and completing tasks, difficulty planning and anticipating events, learning difficulties, and problems with language development (p. 392). The seventh domain is self-concept: lack of continuous and predictable sense of self, low self-esteem, feelings of shame and guilt, generalized sense of being ineffective in dealing with the environment, and belief that one has been permanently damaged by the trauma (Cook et al., 2005; van der Kolk, 2005).

Much has been written about child growth and development in the early years. While the developmental theories may vary, no one can deny the transformational process young children go through during their developmental journey. Given a supportive and nurturing environment,

the healthy child's developmental agenda will unfold, achieving predictable milestones. The early childhood education community has grown to respect the child's developmental process and has advocated to structure early childhood education programs in accordance with the child's developmental agenda. Such knowledge guides early childhood professionals and helps the educator from imposing expectations that are at odds with the developmental tasks of each age group.

Despite having a strong operational understanding of child development, an early childhood educator will come across children who seem ill-equipped to follow her/his own developmental agenda. "Many essential ego functions seem out of sync or qualitatively different from those of other children" (Koplow, 2007, p. 4). In a case like this, "The child's internal disorganization spills over the classroom like a geyser, threatening to drown the child, and others, compelling the educators to act swiftly to stop the flow" (Koplow, 2007, p. 5). The educator may have little to no knowledge of the child's experiences which would provide insight to his or her puzzling developmental status. The child's psychosocial history may include disruptions, deprivations, and traumas that the educators have no knowledge of. Perry (2002) suggests traumatic experiences can have a profound impact on the development of the child, possibly altering his or her physical, emotional, cognitive, social, and spiritual development. Moreover, Perry (2002) reminds us that traumatic events in childhood "increase the risk for a host of social (i.e. teenage pregnancy, anti-social behaviour), neuropsychiatric (i.e. post-traumatic stress disorder, conduct disorders), and physical health problems such as heart disease and asthma" (Perry, 2002, p. 2).

The responsibility of educating young children is rewarding and challenging, but the emotional toll on educators can be enormous. Initially, an educator may feel empathetic toward the child yet exasperated as she/he struggles to contain the child's difficult behaviours and to follow her/his "idiosyncratic developmental path" (Koplow, 2007, p. 4). The frightening and sad tales that fill the child's psychosocial history may provide the educator with insight into the child's experiences or environmental reality and may leave the teacher at a loss as to how to proceed with the job of facilitating the child's development. The educator may ask her/him self, "How does it happen that difficult experiences can seize or change the developmental process of a young child?" "What role can I play?" These questions, and others, are important for educators to explore because understanding the development of young children and the impact of experiences, both positive and negative, on the child, family, and educators is an essential part of an early childhood educator's work with young children and their families/caregivers.

What Role Can Early Childhood Educators Play?

The response of the child's social support system is perhaps the most important factor in determining the child outcomes and is "more important than objective elements of victimization" (Cook et al., 2005, p. 395). These supports strongly mitigate the development of further trauma symptoms and enhance a child's capacity to resolve the symptom. Caregiver support is a critical mediating factor in determining how children adapt to victimization. There are three main factors in a caregiver's response to a child's trauma: believing and validating the child's experience, tolerating the child's affect, and managing the caregivers' own emotional response (Cook et al., 2005, p. 395).

When a caregiver denies the child's experiences, the child is forced to act as if the trauma did not occur. The child also learns he or she cannot trust the primary caregiver and does not learn to use language to deal with adversity. Cook et al. (2005) suggest that it is not the caregiver distress per se that is necessarily detrimental to the child. Instead, when the caregiver's distress overrides or diverts attention away from the needs of the child, the child is adversely affected (p. 395). Children may respond to their caregiver's distress by avoiding or suppressing their own feelings or behaviours, by avoiding the caregiver altogether, or by becoming "parentified" and attempting to reduce the distress of the caregiver (van der Kolk, 2005).

Sometimes, children who have been traumatized rekindle painful memories or feelings in the caregiver. Caregivers who have had impaired relationships with attachment figures in their own lives are especially vulnerable to problems in caring for children. Those with histories of childhood complex trauma may avoid experiencing their own emotions, which may make it difficult for them to respond appropriately to their child's emotional state. The caregiver, or educator, may interpret the child's behavioural response to trauma as a personal threat rather than as a re-enactment of what happened to the child or a "behavioural representation of what the child cannot express verbally" (Cook et al., 2005, p. 396).

Chapter 2: Attachment

What is Attachment?

Attachment describes a reciprocal process whereby an emotional connection develops between the infant and the caregiver. This two-way process develops over time, and there is an expectation, on the infant's behalf, of care and protection. It can be described as a pattern of emotional and behavioural interactions where infants express a need for attention, comfort, support, or security. A caregiver's ability to perceive, interpret, and react promptly to the infant's need and attention in turn influences the quality of the attachment relationship. Attachment research is a field of developmental psychology that examines how patterns of communication between parent and child shape the development of the child in various domains, such as the social, emotional, and cognitive areas (Siegel & Hartzell, 2004).

Attachment influences the child's physical, cognitive, and psychological development becoming the basis for the development of trust vs mistrust. Infants are pre-programmed to engage their caregiver with innate behaviours such as looking, smiling, crying, and clinging; often referred to as attachment behaviours (Siegel & Hartzell, 2004, p.5).

The need for human beings to be attached to someone who can provide them with safety and reassurance when they are frightened, anxious, or tired was first introduced by John Bowlby, the originator of Attachment Theory, and later by Mary Ainsworth (Purnell, 2004; Sroufe, 2005). The work of these early pioneers highlighted the factors that promote secure attachments such as experiences through facial expressions and eye contact, emotional attunement, and play. Bowlby's Theory of Attachment provided a biological basis for understanding close, protective relationships. A central innovation of this theory is the recognition that a child's desire for

proximity to his or her mother is a “biological drive which has been selected in evolution, rather than a behaviour which is learned to satisfy other biological drives such as hunger” (Maunder & Hunter, 2001, p. 557). If maintaining proximity is a fundamental need, attachment behaviour can be understood as a set of tactics, or strategies, that have been learned to achieve optimal proximity. An infant, defenseless on his or her own, maintains proximity to her or his mother via a complex system of communications and behaviours, which increases the infant’s chances of survival (Maunder & Hunter, 2001, p. 557). Attachment behaviours can be smiling, vocalizing, crying, and approaching. The evolutionary benefit of the attachment system is that it motivates the infant to seek proximity to the parent, especially at times of distress, thus increasing the infant’s chances of survival (Siegel & Hartzell, 2004).

Attachment theory is a theory about close interpersonal relationships. It is a theory that helps us understand the nature of relationships between children and those who have the responsibility of caring for them. It informs our understanding of how these early relationships influence later psychological development (Rolfe, 2004). And, most importantly, for early childhood educators, it is a theory that provides guidelines for caregiving interactions and relationships that nurture children’s optimal psychological growth and well-being.

The Purpose of Attachment

Those who study attachment believe that children’s first relationships, especially with their parents or other primary caregivers, address two basic needs. First, the physical presence of the parent/caregivers can reduce a child’s fears when in new or difficult situations so the child can explore his or her environment confidently and manage stress that may come with such exploration (Shonkoff & Phillips, 2000). Secondly, attachment relationships strengthen a child’s

sense of competence and efficacy. The adult's reliable and consistent response to the child strengthens the child's awareness of being able to influence others and affect the world (p. 236).

Fraley and Shaver (2000) believe the attachment system essentially "asks" the following fundamental question:

"Is the attachment figure nearby, accessible, and attentive? If the child perceives the answer to this question to be 'yes,' he or she feels loved, secure, and confident, and, behaviourally, is likely to explore his or her environment, play with others, and be sociable. If, however, the child perceives the answer to this question to be 'no,' the child experiences anxiety and, behaviourally, is likely to exhibit attachment behaviours ranging from simple visual searching on the low extreme to active following and vocal signalling on the other" (Fraley & Shaver, 2000, p. 136).

Children learn about themselves, how to regulate emotions, and how they can expect the world of people to be through early relationships. Attachment theorists use the term "internal working model" (Rolfé, 2004, p. 8). Essentially, an internal working model is the child's mental representation, or a blueprint, of how to handle present and future relationships. As children interact with others, they build up a view of themselves and form expectations about how others will respond (Shonkoff & Phillips, 2000; van der Kolk, 2005). A child's internal working model is defined by the "internalization of the affective and cognitive characteristics of their primary relationships" (van der Kolk, 2005, p. 402). If they experience being responded to in a caring, sensitive, consistent, and reliable way, then they develop a view of the world as generally a safe place to be where generally people can be trusted. They also develop a view of themselves as loved and lovable, a critical foundation of healthy self-acceptance and self-esteem (Rolfé, 2004).

In contrast, children whose attachment figures are insensitive, harsh, or unpredictable, or are psychologically unavailable, cannot develop the same trust. Instead, these children must develop strategies, “psychological defences such as avoidance or ambivalence to cope with rejection or uncertainty” (Rolfe, 2004, p.8). These experiences make children feel vulnerable, inadequate, and unloved. At the extreme, children who experience abusive, neglectful attachment figures, or who have attachment relationships severely disrupted by separations, particularly between six months and between three and five years, such as multiple foster-care placements, may have a view of themselves as unlovable. Early patterns of attachment affect the quality of information processing throughout life (van der Kolk, 2005).

Attachment Styles

Infants can be reliably classified in attachment typology based on Ainsworth’s standardized Strange Situation in which the infant is presented with stressful situations that include the presence of a stranger, separation of the infant from his or her primary caregiver, and reunion (Maunder & Hunter, 2001). Infant-caregiver interactions as well as the child’s response to separations, reunions, and the unfamiliar adult are observed and recorded. As a result of the assessment Ainsworth identified in the Strange Situation procedure, infants in the secure category use the attachment figure as a secure base for exploration, show some distress on separation, but are easily soothed by the attachment figure on her/his return and become settled in to play fairly easily. Those in the resistant/ambivalent category are generally very distressed on separation and have difficulty settling upon reunion, sometimes showing angry, resistant behaviour mixed with contact-seeking to the attachment figure (Maunder & Hunter, 2001, p.557). This attachment style may be the result of interrupted or inconsistent parental care.

Maunder and Hunter (2001) suggest infants learn that turning to their attachment figure for security will be intermittently reinforced. While, on the other hand, the need to be vigilant for the presence and loss of the other is more strongly reinforced. Proximity, once obtained, is often not soothing, resulting in persistent anxiety. Those in the avoidant category show little contact-seeking either before or after separation, minimal sharing of affect with the attachment figure, often little distress during separation, and marked avoidance (ignoring, moving away, gaze avoidance) during reunion (Rolfe, 2004, p. 28). Eventually the child learns that seeking comfort or closeness through crying and clinging is pointless.

A fourth category, termed “disorganized or disoriented,” has been more recently identified by Main and Hesse (1990). Infants who fall under this category show confused, contradictory behaviours in the presence of their attachment figure, particularly during the reunion episodes. There may be signs of fear because there is a history of frightening behaviour on the part of the attachment figure. Main and Hesse (1990) note that these frightened behaviours may be subtle and not necessarily overt.

A secure attachment pattern is thought to be the result of receptive, sensitive caregiving. The caregiver responds in a deliberate way to the infant’s cues, providing both stimulation and nurturing. The caregiver is a protective source of “mutual regulation” which is accomplished through mirroring the child’s responses, including facial expressions, tone, and excitement or calm, and the child eventually develops the ability to self-regulate (Aideuis, 2007). Consequently, infants are able to internalize regulation strategies offered to them by their caregivers and learn to communicate and interpret nonverbal signals. If a satisfactory attunement takes place between the caregiver and infant, this experience will translate into a sense of

security for the child, and the child's internal working model will be that of a caregiver who is responsive in time of trouble (De Zulueta, 2006). This type of mental representation provides a sense of safety and security which provides the infant with the confidence to explore and interact with the world knowing a significant caregiver will read the infant's affect accurately and will provide physical comfort and reassurance when needed. The child ultimately seeks proximity to his or her adult because the adult is viewed as a "safe haven" or someone who "has their back." These infants will "feel confident and capable of empathising with others, thereby forming good attachments and will learn to trust both what they feel and how they understand the world" (De Zulueta, 2004, p.5). In the case of traumatic stress, this type of responsive caregiving provides the child with a supportive environment in which to recover from and make sense of the overwhelming experience and helps the child restore a sense of safety and control (Purnell, 2004; van der Kolk, 2005). Secure attachment is essential to the foundation of a child's development and is the cornerstone for emotional regulation. The basic attachment need for a secure base is so strong that a child will always attempt to develop an attachment with his or her caregiver(s), usually a parent(s), regardless of how the caregiver(s) respond to the attempts (Rolfé, 2004).

Unfortunately, caregivers are not always effective at consistently providing attunement or able to modulate a child's response when under distress. Insecure attachments develop when infants do not have a mental representation of a responsive caregiver in times of need, such as when they feel fearful or in need. As a result, these children have trouble relying on others to help them and are unable to regulate their emotional states by themselves. Consequently, they experience "excessive anxiety, anger, and longings to be taken care of" (van der Kolk, 2005, p. 403). Consequently, infants and young children develop organized strategies of maintaining the

attachment relationship in order to survive (De Zulueta, 2004). Three types of insecure attachment behaviour have been recognized using the Strange Situation – resistant or anxious, avoidant, and, later, disorganized which was discovered by Main and Hesse (1990).

When a caregiver fails to respond to the infant's needs sensitively and with attunement, then the child will adapt his or her behaviours and develop what Ainsworth called an Anxious, or Resistant attachment (Purnell, 2004). Anxious attachment is demonstrated when an infant works hard to make his or her presence known to the inconsistent caregiver so they are not ignored. However, once they have the attention of their caregiver, they do not sustain contact long enough to become settled. This leads to a clinging, angry behaviour and, according to Sroufe (2005), this attachment style may lead to anxiety disorders in the future (p.361).

Avoidant children learn to maintain their proximity to their rejecting parent by “acting as if the parent does not matter, but when separated their heart rate increases betraying their fear” (De Zulueta, 2006, p. 6). This attachment style is associated with the experience of indifferent or rejecting caregiving, with infants learning that to “make the relationship work” they must minimize their attachment bids since these generally evoke angry rejection by the caregiver (Sroufe, 2005, p.358). The infants view the attachment figure as unavailable, and they attempt to cope with the attachment related distress by themselves. Because of these strategies, “avoidant children may appear precociously independent and emotionally autonomous” (Rolfe, 2004, p.36). Rolfe (2004) notes the child may lean away from, or put a toy between his or her body and that of the attachment figure if picked up. This infant may even appear to prefer a stranger over the attachment figure, tend to repress negative emotions, and have difficulty relating to peers (Siegel & Hartzell, 2004; Sroufe, 2004).

A fourth attachment style, Disorganized, was identified in the 1980s by Main and Solomon. In cases where caregivers are both terrifying and the only source of comfort in the face of terror, no organized strategy can be developed by the child (Rolfe, 2004). Children within this attachment category display an unpredictable response in relation to their caregivers because the caregivers become the source of fear and exhibit unpredictable behaviours and responses. The frightening behaviour may be subtle and not necessarily overt. This attachment style is usually seen in children who have been abused by their attachment figures, who have suffered major attachment disruptions, such as multiple foster placements, and/or multiple failed reunifications following removal from parental care due to protective concerns, or whose attachment figures are themselves overwhelmed by previous attachment related losses and whose caregiving behaviour is usually characterized as being “frightened” (De Zulueta, 2004). The disorganized behaviours shown by the child not only are incoherent but they also expose the unresolvable stress and anxiety that the child experiences in response to the attachment figure (Rolfe, 2004). This leads to contradictory attachment tendencies, for example, the child feels afraid and wants to approach the caregiver for comfort, but that person at the same time is the source of the child’s fear.

Research in this area has demonstrated that it is not the quantity of attachment behaviour displayed that is important in understanding attachment relationships (how much the infant approaches the attachment figure and how long proximity is maintained), but how these behaviours are organized (when the infant is most likely to approach the attachment figure and under what circumstances closeness is maintained) (Rolfe, 2004).

Case Scenario

Samantha, Abigail's caregiver, recorded the following observation of her behaviours over the first few hours one morning at the childcare centre. As you read her description, think about the material covered thus far, particularly what constitutes attachment behaviour in the child and the conditions under which this behaviour are most likely to be elicited.

Abigail, who is one year of age, comes into the centre in the arms of her mom, Anna. Anna appears frustrated and more rushed than usual. She comments that the family had a late night and slept in. Consequently, she had to wake Abigail, breakfast was a disaster, and now she is running late for work. And, she wonders if Abigail is not feeling well.

Abigail appears quieter than usual and resists going into my arms when her mom begins to leave, something that I have not observed for a while. Abigail cries loudly when her mom leaves, again an unusual occurrence, and she takes longer than normal to settle.

During the morning she seems to relax, but three aspects of her behaviour are worth noting. First, she appeared far more sensitive than usual to the coming and going of adults in the room. When the door opens, she often notices and looks, carefully checking out who it is. She seems more aware of minor disruptions to routine, such as when an unfamiliar adult comes in to talk to one of the caregivers. Additionally, she is more "clingy" than usual, following me around, wanting to be held, and shows distress when I leave the room for my break. My colleague Shannon comments that Abigail did not want anything to do with her while I was gone, despite her attempts to hold her and comfort her. Thirdly, Abigail does not seem interested in play activities today. It is as if her need for my comfort and reassurance is getting in the way of her exploration and enjoyment of the toys and activities around her.

At around 10 am, Abigail's mom phones the centre and asks to speak to me. She is in tears and anxious to know how Abigail is doing. She says on days like today she just wants to forget about work and be with her daughter. In all, Anna calls the centre three times before lunch (Rolfe, 2004, p. 37).

Questions for Reflection

- Which behaviours in Abigail may be considered attachment behaviours?
- Why is Abigail finding it more difficult to separate from her mom this morning?
- Why do you believe she is more “clingy” and watching the door more than normal?
- What do you think contributes to Abigail not settling for the other caregiver, Shannon?
- What is influencing Abigail's lack of exploration in the room?
- How should Samantha, the caregiver, respond to Abigail today? What does she need?

Discussion Points

Samantha's observations of Abigail are consistent with a heightening of Abigail's attachment needs. She may be more tired than usual or, as her mom suspects, may not be feeling well. Abigail may also be unsettled by events at home in the morning. Under these circumstances, attachment theory would predict that Abigail may be more anxious about separation from her mom, and Anna more anxious about separation from Abigail.

Abigail's initial reluctance to go to Samantha, her distress at the departure of her mom, and the time it took to settle make sense from an attachment perspective. Abigail's need for the closeness of her mom as her primary caregiver is a normal, secure response. In the absence of her mom, Abigail's need for nearness and the reassuring presence of Samantha as her main attachment figure at the centre is also a normal, secure response.

Abigail's rejection of attempts by caregivers other than Samantha to settle her and her sensitivity to change show that Samantha needs to be more conscious of and sensitive to Abigail's needs today. They show how important Samantha is to Abigail's feelings of security at the childcare centre and the secure nature of the emerging relationship between the two of them. Abigail needs frequent cuddles, gentle talking and touching, and careful attention to routines.

Anna also needs extra comfort today. Attachment theory reminds us that it is natural for primary attachment figures to be more concerned about their child if he or she is unwell or unsettled. Given the circumstances, Anna's response does not mean she is unhappy with the centre, dissatisfied with the carer, or questioning Samantha's ability to look after Abigail. She is just seeking reassurance and making contact with her child in the only way possible for her at this time.

Attachment and Trauma

Attachment is one of the seven domains impacted by complex trauma. It is clear that the parent-child relationship is the most crucial risk or protective factor for children exposed to traumatic events. The lack of capacity for emotional self-regulation is probably the most striking feature of some traumatized children (Streek-Fischer & van der Kolk, 2000). The caregiver-infant bond serves to not only meet the biologically instinctual drive for infants to maintain physical proximity to caregivers to maintain physical comfort in order to sustain life, but also serves the second purpose of regulating emotional distress (De Zulueta, 2004). Children who have a secure attachment to their parents demonstrate greater resilience following traumatic events because parents with securely attached children appear to provide their children with

inner resources that enhance their coping abilities when confronted with a traumatic event and, most importantly, regulate their emotional distress or state (Brom et al., 2009). According to Main and Hesse (1990), these resources are tied to “internal representations that may involve optimism, self-reliance, a sense of self-worth, trust in others, and the ability to form relationships and cooperate with others” (Brom et al., 2009, p. 83).

When a child develops an insecure attachment style with the primary care figure, the child experiences uncertainty about the reliability and predictability of the world because the adult who is suppose to “have their back” is unreliable, untrustworthy, and at times frightening. When the attachment figure is not present to modulate the child’s emotions, especially when highly aroused due to fear or uncertainty, the child develops an internal working model that says adults cannot be trusted and I am not lovable or worthy of their love and attention. Eventually, this may lead to interpersonal difficulties such as conflict with parents/caregivers, siblings, peers, and teachers; difficulty attuning to the emotional state of others; misunderstanding and misinterpretation social cues: and uncertainty about the reliability and predictability of the world (Aideus, 2007).

Case Study

For this case study, think about the categories of attachment discussed and consider how you might apply the material presented to the following scenario.

Four year old Helina is playing happily with three of her friends in the outside play area of her preschool. They are laughing and making zooming noises as they ride their bikes around and around on the path. Unexpectedly, Helina and one of her friends collide. Helina bumps her knee and gets scared. She starts to cry and, looking around, sees her teacher Steven standing not

far away. She calls out to Steven, and then runs to his side. He talks calmly to her and gently rubs her knee. Within a few moments, Helina wipes away her tears and begins to smile. Steven helps her back on her bike, and she is off again, calling out to her friends.

Questions for Reflection

- What behaviours shown by Helina specifically indicate the security of her relationship with Steven?
- If this was an avoidant relationship, what would you expect Helina to do when she gets scared?
- If this was a resistant relationship, what would you expect Helina to do when she gets scared?
- What behaviours, shown by Steven, are consistent with the development of a secure relationship?

Role of Early Childhood Educators

Early childhood educators play a special significance as caregiving figures and can support secure attachments with the children in their care. Educators can fulfill this role, even if the children have one or more secure attachments within their family. For children with insecure attachment experiences, the role of the early childhood educator in the development of resilience is even more crucial. Rolfe (2004) suggests children can move from less positive to more positive internal working models if the quality of their caregiving becomes more sensitive and responsive, or they have opportunities to experience this kind of care for the first time with their childcare providers (p. 83). Naturally, this is not an automatic outcome, particularly if children have experienced severe attachment related trauma. Children whose emotional needs have been

ignored or rejected may hide their feelings or refuse comfort. This can be confusing or even alienating to a responsive, sensitive educator (p. 83).

Early attachments are important not only as indicators of the caregiver-child relationship, but also for their significant effects on other aspects of the child's functioning. They appear to have the most consistent and enduring influence on young children's social and emotional development, although they also foster the exploratory behaviour that is so vital to early learning (Shonkoff & Phillips, 2000). Therefore, it is necessary for early childhood educators, and managers, to ensure consistency in staffing, attunement, and responsiveness by the educators for children who have, or are, experiencing a trauma. Children who consistently experience nurturing and responsive caregiving are more likely to explore their environment through play, using their caregivers as a secure base. Through this type of approach, the educator develops a deeper understanding of each child and is able to anticipate his or her needs, thus making it easier to meet these needs in a group environment. In this way, children will develop social competence and be attuned to the emotions of others (Colmer, Rutherford, & Ebert, 2011).

Being responsive to, sensitive to, and consistent with children requires a high level of commitment, self-understanding, and self-awareness. As we have seen from an attachment perspective, and later a resilience perspective, the balance of supports and stress in our lives and our own history of early attachment relationships can each impact on the quality of relationships that we develop. Educators each bring their own relationship patterns and internal models of attachment to their work with young children. The quality of the earliest relationship with children depends on the educator's capacity to be emotionally available, consistent, sensitive and responsive. When educators provide a combination of warm, responsive, positive interactions, as

well as continuity and consistency, they are facilitating the development of a secure relationship.

This secure base, or relationship, develops a child's sense of connection and belonging, thus providing a foundation on which children can build future relationships.

Chapter 3 – The Developing Brain and Trauma

Childhood is a unique period of progressive physical, cognitive, behavioural, and emotional development. Paralleling these developmental stages are changes in brain development (Malchiodi, 2008; Perry, Pollard, Blakley, Baker, & Vigilante, 1995). The last decade has witnessed an impressive expansion of our knowledge of the brain (Malchiodi, 2008). A greater understanding of the neurodevelopmental process has come together with progress in understanding the connection between exposure to trauma and the emotional, behavioural, and cognitive difficulties exhibited by some children. This knowledge has resulted in recognition that trauma reactions are both physiological and psychological experiences (Perry et al., 1995; Streeck-Fischer & van der Kolk, 2005).

Developmental experiences determine the organizational and functional status of the mature brain. The impact of traumatic experiences is best discussed in context of the basic principles of neurodevelopment. The human brain is an amazingly complex organ composed of over 100 billion neurons (Perry et al., 1995). The brain is organized into systems to sense, process, store, perceive, and act on information from the external environment (e.g. visual, tactile, olfactory, and auditory) and the internal environment (signals associated with hunger); these complex systems work together to ensure the survival of the species (Perry et al., 1995; Siegel, 1999).

Neural pathways, the major working unit of the brain, are activated by direct experiences. Though experience shapes both the activity and strength of neuronal connections, early experience may also be crucial in organizing the way brain structures develop (Siegel, 1999). For example, traumatic experiences at the beginning of life may have profound effects on the deeper

structures of the brain which are responsible for basic regulatory capacities and equip the brain to respond to stress later in life (Siegel, 1999, p. 13). Common, everyday experiences also shape brain structure; however, early in life, interpersonal relationships are a primary source of the experience that shapes how a child's brain functions throughout life. Siegel (1999) posits relationships have a dominant influence on the brain because the "circuits responsible for social perception are the same or as tightly linked to those that integrate important functions controlling the creation of meaning, the regulation of bodily states, the modulation of emotion, the organization of memory and the capacity for interpersonal relationships" (Siegel, 1999, p. 21). Siegel's (1999) assertions suggest that interpersonal experiences play a significant role in determining the development of brain structure early in life and the ongoing emergence of brain functions throughout the lifespan.

In 2009, the Centre on the Developing Child launched a collaboration with the Interactive Media Division of the School of Cinematic Arts at the University of Southern California to create the Brain Hero. The clip illustrates how brain architecture is built early in life and through experiences; unfortunately, this early brain architecture can be derailed by serious adversity early in life. The clip portrays how actions taken by parents, educators, policymakers, and others can affect positive life outcomes for the child and the community (<http://www.youtube.com/watch?v=s31HdBeBgg4>).

As this clip underscores, children may experience serious adverse experiences, impacting the architecture of the brain. Fortunately, with awareness and knowledge, steps can be taken to mitigate the impact of traumatic experiences. Educators can support children who have been traumatized by having working knowledge of the physiology of trauma, understanding how the

brain is organized, and knowing how the body and mind react to traumatic events (Malchiodi, 2008; Perry et al, 1995).

General Structure of the Brain

The brain develops in a sequential and hierarchical fashion – from less complex (brainstem) to most complex (limbic and cortical areas). These areas develop, organize, and become fully functional at different times during childhood (Perry et al., 1995). The human brain is often described as consisting of three parts: the brain stem, the limbic system, and the cortex.

The Brain Stem. The brain stem, the first area to develop, is responsible for regulating basic functions such as reflexes, the cardiovascular system, and arousal. The cerebellum, connected to the brain stem, is responsible for coordinating motor, emotional, and cognitive functioning. Together these areas are often referred to as the “reptilian brain” because they function like the brain of reptiles (Malchiodi, 2008).

Limbic System. The limbic system includes a group of structures that form a ring around the brain stem: the hypothalamus, amygdala, and hippocampus. Often referred to as the “emotional brain,” the limbic system is the source of urges, needs, and feelings. Some of the primary functions include self-preservation, the fight or flight response, and implicit memory (Malchiodi, 2008). It also contains a variety of structures important for understanding an individual’s response to trauma and acts like a bypass system, allowing for quick emergency responses. Van der Kolk (2003) notes that this system fine tunes the regulatory functions of the hypothalamus and brain stem and serves as a filter that determines what sensory input is relevant for further mental processing (p. 304). The thalamus is a structure at the centre of the brain, just above the brain stem, acting as a relay station for incoming stimuli and “allows for the senses to

be used in combination” (Creeden, 2009, p. 262). The hypothalamus lies just below the thalamus to maintain homeostasis and to exchange information between the brain and body (van der Kolk, 2003).

The amygdala starts functioning almost immediately after birth, monitors incoming stimuli for possible threats, and stores information about the threatening stimuli. It also serves to deactivate the threat when danger is detected; in essence, it becomes the child’s smoke alarm (Creeden, 2009). The amygdala has close back and forth communications with the areas of the brain involved in attention, memory, planning, and behaviour control. Animal studies indicate that when the amygdala is hyperstimulated there is a “hypersensitization of the fear-stress circuits of the brain and changes the animal’s behaviour to look more like an animal version of posttraumatic stress disorder” (Shonkoff & Phillips, 2000, p.213). Shonkoff and Phillips (2000) describe hypersensitization as if the fear circuits were being locked in the “on” mode and having difficulty turning off (p. 213). The fearful experience, or memory, activates the stress response systems and elevates the levels of different stress chemicals circulating through the body. One such chemical is cortisol, a steroid hormone that plays many roles in stress physiology, suppressing the immune system, physical growth, inhibiting reproductive hormones, and affecting many aspects of brain functioning, including memory (primarily how memories are processed and stored) and emotions (Siegel, 1999). The release of cortisol initiates autonomic responses such as increased heart rate and blood pressure and defense reactions like fight-or-flight-or freeze (van der Kolk, 2003).

Persistently high cortisol levels can be especially damaging in children. When stress continues over days, weeks, or years, many of their developing systems are ‘arrested’, sometimes

causing permanent damage. “Unusually high cortisol levels form constant stress slow physical growth, delay sexual maturity and can slow the growth of brain cells” (Stroud, 2002, p. 428).

The hippocampus serves as a hub for memory and learning and appears to be involved in the processing of all conscious memory (Creeden, 2009). Unfortunately, the hippocampus, which puts danger in special context, matures only gradually over the first five years of life, making it difficult for children to identify and organize the nature of threat (van der Kolk, 2003). Van der Kolk (2003) suggests there is good evidence that early abuse and neglect significantly affect the maturation of the hippocampus, which makes children with such histories vulnerable to misinterpretation of sensory input in the direction of danger and threat (p.294).

Cortex and Neocortex. The third region of the brain is the cortex and neocortex, or the “thinking brain.” This is where reasoning, communication, and planning occur. This region gives people the capacity for language, consciousness, and the ability to think, but also to think about thoughts (meta cognition), behaviour, and emotions (Malchiodi, 2008). The prefrontal cortex is responsible for executive functioning, including making choices between right and wrong or good and bad and mediating conflicting thoughts and governing social controls such as suppressing emotional or sexual urges (Creeden, 2009). “Typically, as humans develop, the prefrontal cortex exerts control in regulating limbic and brain stem responses” (Creeden, 2009, p. 262). Van der Kolk (2003) suggests “for children to learn from experience means the incoming input must be registered in consciousness compared with what the child already knows, and evaluated for an appropriate response” (van der Kolk, 2003, p. 297). This process proves to be difficult for some children because they cannot integrate the experience into the explicit memory and end up keeping it a sensory or emotional memory instead of a memory with a narrative.

Neurobiology and Trauma

Levine and Kline's (2007) statement that "Trauma is in the nervous system— not in the event" (p. 4) points out the individual nature of responses to stress. When stress is intense, severe, or prolonged, the neuronal makeup of the person is affected (Cook, Ciorciari, Varker, & Devilly, 2009), so much so that their stress tolerance is near its breaking point at all times, particularly for young children who have not yet accumulated a history of security or homeostasis (Perry et al., 1995).

Exposure to recurrent or prolonged trauma, especially when the onset occurs during early childhood, "can cause neurobiological changes such as alterations in the volume and activity levels of major brain structures such as the corpus callosum and the limbic system" (Brom et al., 2009, p.184). The limbic system is developed so that the child responds to cues of danger, but the neocortex is not yet developed enough to determine whether the cue represents actual danger or not (Norton, Ferriegel, & Norton, 2011). When a child experiences an initial threat, an alarm system is activated. This system increases activity in the sympathetic nervous system: increased heart rate, blood pressure, respiration, and a sense of hypervigilance, and other stress response systems in the brain may occur (Perry et al., 1995). When the alarm system is activated, children cannot access the neocortex, which is responsible for reasoning, language, and brain regulation. Consequently, children often cannot describe what is happening for them or make logical sense of their immediate experience. Instead, their response is fight, flight, or freeze. The activation of the sympathetic nervous system also releases hormones that interfere with normal growth and development of the brain; the impact depends on the windows of vulnerability for each region. Early in life, the brain is adaptable and the flexible (due to plasticity), allowing the brain to make

the necessary modifications in development so the individual can cope with the stress or trauma he or she may encounter throughout life. If the brain stem and the limbic system develop in a less optimal fashion, the development of all other regions will be impacted.

If children are exposed to unmanageable stress and an adult does not take over the function of modulating the child's arousal, the child will be unable to organize and categorize experiences in a coherent fashion (van der Kolk, 2005). Unlike adults, children do not have the option to move away or protect themselves; they depend on their caregivers for their survival. Being left to their own devices leaves traumatized children with deficits in emotional self-regulation. This results in problems with self-regulation, uncertainty about the reliability and predictability of others, aggression against others, problems with attention and dissociation, physical problems, difficulties in self-concept, and the capacity to negotiate satisfactory interpersonal relationships (van der Kolk, 2005). These trauma reactions are believed to occur when the responses of the limbic system used to mobilize oneself in the face of personal threat is not utilized in a helpful way (Malchiodi, 2008). Perry and colleagues (1995) suggest that adaptive physiological responses to traumatic experiences become a central feature of how brain structure and function are organized when individuals endure repeated trauma and trauma cues in childhood (p. 278). Everyday stressors that may not have elicited any responses now elicit exaggerated responses such as hyperactivity and over sensitivity because the child feels as if he or she is in a persisting state of fear (p.279). Consequently, people tend to observe maladaptive emotional, behavioural, and cognitive problems embedded in the child being adaptive to the traumatic event.

Stress and Memory

The term stress is used by psychologists, physiologists, and the lay public and means different things to each (Shonkoff & Phillips, 2000). For this manual, stress refers to the “set of changes in the body and brain that are set into motion when there are overwhelming threats to physical or psychological well-being” (Shonkoff & Phillips, 2000, p. 212). Stress can have dramatic effects on health and development. When the body is under stress, the physiology of stress produces a shift in the body’s priorities. The degree of stress a person experiences is directly related to the effect on memory; according to Siegel (1999), “small amounts of stress have a neutral effect on memory, moderate amounts facilitate memory, and large amounts impair memory” (p. 50). The effect of stress appears to be mediated by the characteristics of neuroendocrine responses “involving the immediate transient effects of glucocorticoids such as cortisol, known as stress hormones” (Siegel, 1999, p. 50).

The body’s response to stress is partially mediated through the hypothalamic–pituitary–adrenal (HPA) axis, which is activated in times of stress in a set of feedback loops involving glucocorticoids (Goldfinch, 2009). The HPA axis allows the individual to respond to a stressor, and then resume normal control again. Animal studies have shown that early stress has a significant and long-lasting effect on the regulation of the HPA axis; further, these long-lasting effects also occur in adults who have histories of child abuse (Goldfinch, 2009; Teicher et al., 2003). The HPA axis along with the hippocampus, amygdala, and frontal cortex are vulnerable to the effects of early stress and trauma.

The hippocampus, vital for learning and memory storage and retrieval, is sensitive to the impact of stress and has been shown to be damaged by high levels of glucocorticoids produced in

stress (Teicher et al., 2003). Being in chronic arousal, the amygdala becomes more sensitive so that it is ready for any future threats. This area plays a crucial role in triggering the flight, fight, or freeze response. This means the child is primed to react to danger in any situation and is likely to be hypervigilant, perceiving threat before one exists (Goldfinch, 2009). The changes to the hippocampus and the amygdala together with the alteration to the HPA axis may lead to emotional and behavioural dysregulation, and to a feeling of a lack of safety (Teicher et al., 2003).

The prefrontal cortex may be the most delayed development of any brain region (Teicher et al., 2003). Teicher et al. (2003) propose that, early in its development, stress can exert a widespread effect, but as the prefrontal cortex matures, “response to stress becomes more restrictive due to the inhibitory influence of the prefrontal cortex on other regions of the brain” (p. 225).

Memory

When trying to understand the brain and traumatic events, it is important to know how memory is stored. There are two types of memory - explicit and implicit. Explicit, also referred to as autobiographical, is the conscious memory and is made up of facts, concepts, and ideas. It gives a person access to language to describe what one is thinking and feeling. Moreover, it allows the processing of information, reasoning, and meaning that helps individuals define and make sense of experiences (Malchiodi, 2008). Implicit memory, on the other hand, is sensory and emotional and is connected to the body's learned memories. These are memories outside one's conscious awareness and are unable to be verbally recalled but may still be expressed in behaviour. Riding a bike is a good example of implicit memory (De Young et al., 2011). In

implicit memory there is no language. It is what we see, hear, smell, touch, and taste, and these sensations become the “implicit containers” of that experience (De Young et al., 2011, p. 10). Around the age of 18-24 months, autobiographical memory develops as children begin to develop an understanding of self (Creeden, 2009; De Young et al., 2011). Memories are organized as events that happened to “me” and are more likely to become more stable and durable. It is likely that memories prior to 18 months will be remembered in later childhood or adulthood due to infantile amnesia (De Young et al, 2011, p. 240).

In trauma, the left hemisphere of the brain that is responsible for explicit memories is less active than the right hemisphere (Williams, 2006). Most of the implicit memories that are experienced as emotional sensations are mediated by the right hemisphere and information in this hemisphere is not analytical or reasoned (p. 320). Language is a function of explicit memory and is not generally accessible to survivors after a distressing event. Children who have experienced a traumatic event are especially challenged because the Broca’s area of the brain, a section of the brain that controls language, is affected making it difficult to recount the trauma narrative (Malchiodi, 2008). Consequently, trauma is stored as somatic sensations and images and not readily available for communication through language; therefore, the mode of communication becomes nonverbal (p.10). A child’s trauma history then may be established, or understood, from dreams, bodily responses, sensory experiences, fears and play (Terr, 1988).

Chapter 4: How does Trauma Impact a Child's Development?

It is critical to society that children become competent, caring adults. Thus, it is important for educators to share a stake in the development of competence and in understanding the processes that undermine it. Far too often, children's development is deeply and profoundly impacted by traumatic events. Traumatic events at any age are difficult and for young children they are uniquely distressing because they are undergoing a rapid period of emotional and physiological development, have limited coping skills, and are dependent on their significant carers to protect them physically and emotionally. The impact of potential traumatic events on a child's development varies depending on the developmental stage at which the child experiences the trauma. Cohen and Scheeringa (2009) have reported that traumas which occur during early childhood may have even greater ramifications for developmental trajectories than traumas that occur in later adolescence.

Early interpersonal trauma can have a profound impact on young children's emotional, cognitive, and physical functions, and their ongoing development. In fact, early interpersonal traumas are recognized as a frequent cause of children's emotional and cognitive difficulties in childcare programs, schools, and at home (De Young et al., 2011). Its impact can be so diverse and multifaceted that at times early childhood educators, counsellors, and/or teachers "may feel like 'the king's horses and the king's men' are unable to 'put' these children 'back together again'; overwhelmed by the child's difficulties such as poor social skills, aggression, defiant and impulsive or destructive behaviour, and overall poorer developmental outcomes" (Goldfinch, 2009, p. 284).

Learning and trauma responses are mediated by, and alter, important neural systems in the brain. The brain mediates hundreds of important functions ranging from heart rate regulation, to appetite, to motor movement, to thinking, creating, and developing relationships with self and others. To ensure survivability, the human brain is wired to respond to threat. Traumatic events may impact the child's functioning in domains of feeling, behaving, and thinking. If a child feels threatened, he or she is not thinking as much about what is happening next or in the future, nor, does the child focus on words used by others or his or her own language to express needs, wants, and desires. Rather, he or she focuses attention on what appears to be the threat-related signals in the environment. Perry (2002) proposes children move along an arousal continuum when feeling threatened. The further along the child is on the arousal continuum the less capable he or she will be of learning or retrieving cognitive content; in essence, fear can destroy the capacity for learning (Perry, 2002, p. 277).

The symptoms of early trauma directly impact how a child learns about the world and him or herself. Two types of responses experienced as a result of trauma are hyper-arousal and detachment; both impact learning. During a perceived threat, a child becomes hyper-aroused as he or she is focused on surviving the threat. In this state, children are less capable of concentrating, more anxious, and more attentive to non-verbal cues such as tone of voice, body posture, and facial expressions (Perry et al., 1995). In some instances, if the person is feeling hyper-vigilant, due to feelings of anxiety, these cues may be misinterpreted and other developmental tasks may be impacted (van der Kolk, 2005). Van der Kolk (1995) describes how a child's detachment is expressed in the body as the "shutting down" of sensations, so the body can protect itself from trauma. Withdrawal or detachment also reduces a child's ability to engage

with the world and, therefore, the ability to learn emotional, social, and cognitive information, and to practise skills (van der Kolk, 1995, p. 295). These adaptive changes in the child's thoughts and behaviours are well-suited to sense, perceive, and act upon danger in a threatening environment; however, these "survival tactics" do not serve the child when the environment changes (i.e. childcare centre, or peer relationships) (Perry, 2006, p. 24). For young children experiencing a complex trauma, the resulting impact on the brain is connected to a variety of developmental outcomes – difficulties in emotional and social regulation, cognitive challenges (such as poor concentration), and sometimes behaviour problems.

Emotions

Traumatized children are often disconnected from their own emotional experience. More specifically, they may lack awareness of how their body feels and are unable to connect those states to specific experiences and emotions. Internalized emotion in response to daily experience may be biased toward negative affect states such as shame, self-blame, and isolation. This reflects the child's internalization of responsibility for his or her own traumatic exposures (Kinniburgh, Blaustein, & Spinazzola, 2005). The disconnection from their own emotional experience makes it difficult to interpret emotions, or cues, expressed by others and they may misinterpret them as potential danger cues or as negative emotions such as anger or blame (Kinniburgh, Blaustein, & Spinazzola, 2005, p. 427). Because the child has difficulty expressing emotions, the emotions they do experience may be either constricted or explosive and, following these intense emotional states, the children may have difficulty calming down. These emotional challenges may also trigger social and behavioural challenges as well.

Social and Behavioural

By the time children reach the preschool years it is generally expected that they will respond to frustration without aggression, to cope with high arousal, while at the same time be spontaneous and exuberant in their play. A major developmental task for this age group is the ability to engage in positive interactions with peers and develop satisfying peer relationships. Children with trauma histories tend to have problems with reading social cues and difficulty adapting their behavioural arousal to appropriate social demands (van der Kolk, 2003). As a result, they are often out of tune with others and unable to regulate their emotions in a predictable fashion, so they scare other children away and lack consistent playmates.

Avoidance may be another behaviour observed in a traumatized child. The child may try to avoid any exposure to things, situations, or people that remind him or her of the traumatic event (Liebermann & Knorr, 2007). A child who has experienced an interpersonal trauma may have reminders regularly in his or her life; therefore, the impact may be more pervasive. For example, if a child is repeatedly frightened at home by violence, scapegoating, blame, and criticism, then the reminders of the trauma may be as common as any authority figure, or any interpersonal situation (Goldfinch, 2009). In other words, any person could be perceived as a possible threat. A child in this situation may appear withdrawn and avoid joining other children in play or refuse to join group activities (Liebermann & Knorr, 2007). Again, this type of avoidance may appear to be without triggers. Avoidance of social settings or new situations may also show in reluctance to separate from a caregiver at the childcare setting, even though there is no obvious problem in the program.

Many traumatized children are perpetually on guard or hyper-vigilant. They are anxious, wary, and preoccupied with monitoring the environment for potential sources of injury or loss (Liebermann & Knorr, 2007). Hyper-vigilant children are frequently assumed to have deficits in attention, but they cannot afford to abandon their “watch” in order to ensure survival (Koplow, 2007, p. 179). In this way, hyper-vigilant children are deprived of essential play, learning, and social interactions because they must stay alert to their external surroundings.

Hyper-arousal can lead to a child reacting suddenly to a perceived threat with a fight, flight, or freeze response such as leaving an area quickly or attempting to take control of the situation because he or she does not trust the adults in the environment. Initially, this response has adaptive value (e.g. freeze response may allow time to work out how to respond to the threat). Unfortunately, these attempts to take control are generally maladaptive and present as aggression, oppositional behaviour, or defiance (Streek-Fischer & van der Kolk, 2004). If the child continues to use these adaptive strategies, they can become maladaptive strategies (Perry et al., 1995). The complicating factor is that even a neutral event may appear as a threat because the child is hyper-vigilant leading the educator to believe there was no identifiable threat to trigger the outburst. The event, or trigger, may have been a simple and usual event in the classroom such as an instruction, a comment, or an attempt to redirect the child’s behaviour (Koplow, 2007). For example, traumatized children are often hypersensitive to peripheral auditory stimuli, and may be easily frightened by loud or unexpected sounds. For example, when the older furnace in the centre comes on unexpectedly, and rather loudly, a traumatized child may tense with fear each time the furnace turns on, something that goes largely unnoticed by the other children in the room.

Routine experience may be viewed as potentially threatening for traumatized children and may mobilize stress responses when other children feel safe and comfortable. Children may become anxious, “frozen in their tracks”, scream, refuse to participate, begin to cry or try to hurry through or run away from the situation they find threatening. One such routine is rest time. Hyper-arousal responses may make rest time difficult for these children who may not be able to relax and go to sleep. Since children often rely on a high activity level to fend off intrusions of traumatic memories or affects, the inactivity required at rest time is often untenable, and children tend to act out or resist the routine in some way. Without being able to move around, traumatized children may feel too vulnerable. Because rest time tends to be dark in many centres and sometimes the educator may not be easily seen by the child, the child may feel alone and unprotected.

Numbing or withdrawal could show as a child “zoning out” during play time, conversations, or group times. This type of withdrawal leads to reduced engagement with the world around or to a stubborn refusal to cooperate, which can lead to non-compliance. Depending on how the situation is handled, a child’s withdrawal could lead to a confrontation, which could result in the child feeling threatened or at risk again.”

Cognition

Young children’s cognitive development is intricately connected with their social and emotional functioning. Traumatic experiences can derail the child’s readiness to learn, either temporarily or for the long term, through such mechanisms as hyper-vigilance, constriction of exploration, aggression towards others, and generalized fears (van der Kolk, 2005).

Secure children's cognitive development is enhanced because they are better able to exploit opportunities for exploration and learning. Often this is because they can achieve, and maintain, feelings of security in new situations. These children tend to be more cooperative, approach tasks more enthusiastically, show less negative affect, and persist at tasks over a longer period of time (Rolfe, 2004). Rolfe (2004) believes this has to do with their enhanced ability to self-regulate their emotional state (p.135).

Insecurely attached children, however, are less able to deal with arousal because of their histories and may become anxious, which is unhelpful to their learning (Rolfe, 2004). Highly aroused children may be more distracted, fearful, and/or less relaxed around other people, thus possibly compromising their ability to perform cognitive tasks. Cook et al., (2005) suggest children who have experienced trauma demonstrate impaired cognitive functioning by late infancy, signifying that the emotional and sensory deprivation often associated with neglect is detrimental to cognitive development. Impaired cognitive functioning may be in expressive and receptive language development as well as deficits in overall IQ (p. 395). Henry, Sloan, and Black-Pond (2007) state that preschool aged children impacted by complex trauma have delays with grammar and vocabulary, comprehension, conversational skills, receptive and expressive syntactic skills, and are less flexible and creative in problem-solving tasks than children who have not been traumatized (p.100).

In some instances memory impairment may occur as a result of a traumatic event. For children who have experienced a single traumatic event, or life threatening event, a common symptom is re-experiencing the traumatic event. However, a child who has been exposed to chronic trauma is not as likely to have sudden intrusive memories, flashbacks or intolerable,

intrusive thoughts or images (Terr, 1991). More likely, these children will experience sleep disturbances, such as nightmares, engage in repetitive play, or spend large periods of time by themselves (Goldfinch, 2004). Any type of memory impairment will affect the child's intellectual functioning, or the ability to perform in the present, or the ability to think of the future (Cook et al., 2005). A coping mechanism may be numbing or avoiding reminders of the event(s). In doing so, the child may guard him or herself against the overwhelming feelings of helplessness that are generally the core experiences of traumatizing situations (van der Kolk, 1994).

It can be easy to push aside children with challenging life histories. However, children with complex trauma histories desperately need to be understood in the context of the trauma. When time is taken to understand how a child has experienced the traumatic event, educators are in a much better place to meet the child's needs. Supporting traumatized children does require time, heartache, and patience, but it is worthwhile. With a multifaceted approach, educators find it is possible to achieve what used to be referred to as impossible and "put Humpty together" again, allowing the traumatized child to grow and develop a strong healthy self (Goldfinch, 2009, p. 297).

Chapter 5: “If You’re Sad and You Know It”

“If you’re happy and you know it, clap your hands,

If you’re happy and you know it, clap your hands,

If you’re happy and you know it, and you really want to show it

If you’re happy and you know it, clap your hands”

~Children’s Song

Early childhood educators will recognize the song above. It is a song familiar from our own childhoods, received as enthusiastically by the current generation of children as it was years ago. Yet, if we end the song here, we risk neglecting many of the children sitting before us whose predominant affects are not happiness but sadness, anger, fear, worry, etc. If we envision childhood as a carefree, joyful time, we may be denying the experiential and emotional realities of many children who enter our childcare programs each day.

Van der Kolk, (2005) and others have found that emotional dysregulation is the most far reaching effect of children’s trauma (Aideus, 2007; Perry, 1995). Cook et al., (2005) confirm this by identifying that complex trauma often results in a loss of the child’s core capacities for self-regulation and interpersonal relatedness (p. 390). This loss in capacity can result in lifelong problems that place the child at risk for further trauma exposure and cumulative impairment (e.g. psychiatric and addictive disorders, chronic medical problems, vocational, and family problems) (Cook et al., 2005, p.390). Moreover, Cook and colleagues propose these problems may extend from childhood through adolescence and into adulthood.

Emotions and the Brain

Psychologists and neuroscientists have long debated about the interactions between our thinking brain, the neocortex, and our emotional brain. Let us look at each and examine the interplay between the two. The cortex is involved in the processing of emotions; it helps evaluate a potentially threatening situation, and to look before we leap. The limbic system has been found to be the centre of emotional processing, specifically, the hippocampus and the amygdala (Goldfinch, 2009). Both appear to help keep emotionally laden events stored in our long term memory. Researchers have concluded that emotional experiences are experienced when three actions take place: activation of the amygdala, activation of the arousal system, and bodily feedback such as heart-pounding (Foran, 2009; Perry et al, 1995; van der Kolk, 2005).

Role of Attachment

Early relationships provide “the relational contexts in which children develop their earliest psychological representations of self, other, and self in relation to others” (Cook et al., 2005). The interactions between a primary caregiver and child are necessary regulatory experiences, ones that assist a child in dealing with stress and proceeding through development (Foran, 2009). Repeated interactions with a responsive caregiver support secure attachments and help young children’s brains organize sensory functioning and represent their social world (Perry et al., 1995). The child’s developmental stage at the time of the trauma clearly influences the adaptive responses available (Siegel, 1999). During the first years of life, young children lack the coping capacities to regulate strong emotion and are, therefore, strongly reliant on their primary caregivers to assist with affect regulation during times of distress. Children who are securely attached are more likely to develop systems that enable them to effectively regulate emotional

arousal. For example, when a securely attached child is confronted with uncertainty or something uncomfortable, the child will seek out others to assist in the regulation of the emotional arousal being experienced. In times of trauma then, securely attached children, who have had a history of responsive and sensitive caregiving, are more likely to seek out the responsive and sensitive caregiver for protection and care who acts as a buffer against the trauma.

On the other hand, when attempts to seek assistance from an adult are unsuccessful, a flood of stress hormones overtake the child's self-regulatory system producing toxic effects. Often the toxic effects impair the child's ability to adapt to future stressors, limit development of vocabulary, and may cause the child to appear out of sync with peers or be inattentive to them (Kinniburgh et al., 2005). The child may also have a high level of activity that appears random and disoriented as he/she moves around the room and shows low tolerance when faced with a challenge (Koplow, 2007). Trauma can overwhelm the child's affect regulation mechanisms, and because they have not learned how to collaborate with others when in a difficult position, the child does not know how to seek comfort from another adult. This scenario places the child at an even greater risk for negative outcomes following traumas because they are less likely to have, or be able to engage in, emotionally supportive relationships that can help them process and cope with the overwhelming emotions they experience (De Young, p. 242).

Educators can be part of an important caregiving relationship that fosters healthy development. To ensure educators achieve this type of relationship, Kinniburgh and colleagues (2005) offer a number of suggestions. First, they suggest that educators create rituals and routines so the child can have predictability in the day, thus creating an important safety net wherein all development can be strengthened. Educators also need to be present and in tune with

the child so when they observe the child struggling with a peer relationship, a new situation, or a difficult task they can provide “in-the-moment” regulation skills. Being in tune with the child increases the likelihood that educators will notice the child’s little, and big, successes during the day. They also need to spend time both one-on-one and in groups identifying and labelling, both verbal and nonverbal affect. With these new skills, the child will begin to cope better with his or her own affect and pick up on others’ affect cues, ultimately leading to the development and strengthening of peer relationships.

Role of Self-Regulation

Self-regulation is the child’s ability to identify, modulate, and express his or her internal experience. Impaired regulation is a key feature among children exposed to complex trauma (Arvidson et al., 2011). Often the stresses of the traumatic event overwhelm the limited coping skills available to the developing child. The caregiving system serves as an external regulation and when it is absent children are unable to regulate emotions, they disconnect from their feelings, or they use unhealthy, maladaptive coping skills. The goal is to support children in building a vocabulary for their emotional experience and to understand the connection between emotions and precipitating events. This offers the child opportunities to practise tuning in, tolerating emotions and stress, and managing their bodies and emotions.

Creative expression can become a way to connect with feelings and rehearse positive experiences of safety. Some children may find relief through cuddly toys (tactile), some through brightly coloured materials (visual), and others may respond positively to dance or movement (kinaesthetic) or by making or listening to music (auditory). For other children, a teacher may use a more directive approach in order to help the child have a positive experience through self-

expression. For example, the teacher may create a safe place for an animal and encourages the child to use a box or other materials to join in on making a place where the animal feels safe. Through this imaginative play, the child is caretaking the animal by constructing a safe place for it (Malchiodi, 2008).

Role of Affect Regulation

Affect regulation is a complex process that involves adapting and managing feeling states, physical arousal, cognitions, and behavioural responses (Foran, 2009). Developing the ability to manage behaviour and feelings, that is, emotional regulation is critical for a child's mental and physical health. Healthy emotional regulation is connected with higher academic achievement, lower levels of negative emotionality, higher levels of empathy, and higher levels of social competence (Foran, 2009, p. 52).

Van der Kolk (2005) claims that the one main outcome of trauma is a child feeling out of control and alienated from his or her body and from the world. Differentiating between states of arousal can prove to be difficult for educators, yet the reduction of arousal or hyper-arousal in young children is essential for children's growth and development. For this reason, caregivers want to offer multiple opportunities, and modalities, for regulation of emotions. Additionally, educators want to increase the child's familiarity with, and sense of mastery over, his or her body (Goldfinch, 2009). One way this can be achieved is through a variety of sensory-focused activities that can occur inside or outside, one-on-one, or in a group. (See Table 4).

Educators need to keep in mind that traumatized children need to be assured of safety in order to develop a sense of mastery. Therefore, educators need to plan a structured approach to calming down after each activity (Kinniburgh et al., 2005). Without a structured opportunity to

calm down, transitions after physical activity may provoke oppositional outbursts or anxiety-driven refusal to cooperate (Goldfinch, 2009). Songs, guided imagery, mindfulness activities, yoga, and stories are some examples of calming transitional activities.

Table 4
Affect Modulation Activities for Children 3-5

Upregulation	Downregulation	Alternating States
"I Spy" games	Deep slowing breathing	Bubble Blowing: small bubbles requires fast breathing. Big bubbles requires slow breathing
"The Hokey Pokey" Twirling like a top	Yoga for Kids Mirroring game: Child and caregiver Face each other and move Slowly	Rolling cars at different speeds "Red Light, Green Light"

(Avirdeson et al., 2011, p.43)

Fortunately, there is hope. Attachment research indicates that one significant adult can make a difference in the lives of children who have experienced complex trauma (Lieberman & Knorr, 2007; Perry et al., 1995; van der Kolk, 2005). Affirming the value of children's diverse affects is empowering. Children who have experienced complex trauma need to experience their own affective expressions as understood, mirrored, and valued before they will be able to take in affective information from others. Research shows that without experiencing this fundamental form of communication, which stimulates the development of multiple synaptic connections in the children's brain, children may have difficulty moving toward more sophisticated form of communication and learning (Koplow, 2007; Shonkoff & Phillips, 2000). Early childhood educators can be the mirror for these children.

Other Skill Enhancing Activities

'Take Space.' Educators can teach a child to take space when they are feeling overwhelmed, uncertain, or stressed. Initially this may require the educator to be direct and clear if the child is caught up in a negative cycle, or are so aroused that they are simply engaged in a battle of the wills. When a child is aroused, a calm adult or a non-reactive adult can become a tool to help prevent further escalation in the child. Educators can create space in the both the indoor and outdoor environment for children to "retreat".

Feeling Thermometer. Children's feelings can escalate very quickly and often unconsciously. For some children introducing the feeling thermometer can help them become in-tune with what is happening in their bodies. At first, this requires the presence and consistency of the teacher because she or he will bring the child's attention to what they are observing by showing the child where on the thermometer they may be at that moment, describing what they are seeing in the child's behaviour, and discussing strategies for lowering the child's number on the thermometer. Often breathing is effective. In time, the teacher may take a less directive approach because the child is regulating his or her own behaviour.

Grounding Activities. Time to calm the mind and body is critical for a child who is often in a chronic state of fight, flight, or freeze. Grounding activities can be just what a child needs to feel soothed because they teach children how to attend to the here and now.

3-2-1 Sensory Grounding. Educators can ask the child describe to you three objects in their immediate environment. Then ask them to describe three sounds. Follow this up by giving them three objects to feel. Then repeat, this time asking them to describe two objects, two sounds. Give them two objects to feel, and then repeat all of the steps with one item. Remember,

due to the fact that for many children, memories of the traumatic event are sensorimotor memories, you want to have a sense of what sounds, textures, sights may trigger feelings, behaviours, and thoughts in the child. Often children cannot verbally express this to you, so use your keen observational skills.

Mindfulness. Children can be taught to pay attention to those things in the present moment that they never noticed through mindfulness. The process involves attending to the external environment such as sights, sounds, and smells, as well as to internal bodily sensations, thoughts and feelings. Siegel (1999) hypothesizes that mindfulness is a process of internal attunement that forms a secure self-relationship. Mindfulness activities can promote internal attunement that promotes neural integration in the brain impacting the same brain structures that are developed by a secure attachment with a caregiver.

Mindful walking. Educators can invite children to move around the room as softly as they can, as if walking on eggshells or on a delicate glass floor and telling them to be aware of each movement they make—feeling the thigh muscle lift the leg and move it to the next position, feeling the foot coming off the floor and setting it back down, feeling their hands and arms in space. They might move faster or more slowly at times. They might focus on one leg for a few steps, then the other leg. This activity can be used both inside and outside. Afterwards, the educator should plan a short, calming story.

The Raisin Meditation. Read the following script in a slow, calm voice: “Bring your attention to the raisin, observing it carefully as if you had never seen one before. Pick up one raisin and feel its texture between your fingers and notice its colors. Be aware of any thoughts you might be having about the raisin. Note any thoughts or feelings of liking or disliking raisins

if they come up while you are looking at it. Then lift the raisin to your nose and smell it for a while and finally, with awareness, bring it to your lips, being aware of the arm moving the hand to position it correctly and of your mouth salivating as the mind and body anticipate eating. Take the raisin into your mouth and chew it slowly, experiencing the actual taste of the raisin. Hold it in your mouth. When you feel ready to swallow, watch the impulse to swallow as it comes up, so that even that is experienced consciously. When you are ready, pick up the second raisin and repeat this process, with a new raisin, as if it is now the first raisin you have ever seen (as cited in Hooker & Foder, 2008, p.86).

Comfort Boxes. These boxes can help a child manage overwhelming feelings to create safety and in time, using the box can become an effective strategy to replace the previously used maladaptive ones. With the child, find items that provide the child with comfort. Some items you may choose without the input of the child because through observation of the child you will have noticed items the child has been using for comfort; focus on the five senses. Place the items in a box of the child's choosing and in a location of his or her choosing. When the child is struggling with modulating him or herself, encourage the child to use his or her comfort box.

Emotional Literacy. Remember the song at the beginning of the chapter, If You're Happy and You Know it? Happy and excited are not emotions always familiar to traumatized children. So as not to exclude other children, ensure the environment and the curriculum reflects a broad range of emotional states.

Books. One way a broad range of emotional states can be taught to traumatized children is through books. Choose books that expand children's emotional vocabulary and provide them with ways to cope with overwhelming events and feelings. Here are a few to help you get started:

When Sophie Gets Really Angry; My Mouth is a Volcano; Go Away Big Green Monster; Glad Monster Sad Monster; If You're a Monster and You know It; The Invisible String; David's Place; Lots of Feelings; Courage; and Take the Time: Mindfulness for Kids.

The Role of Early Childhood Educators

The need to regulate emotions in children's trauma recovery is paramount (Herman, 1997). Failure to self-regulate affect has been connected with later diagnosis of mental health issues such as psychosis, borderline personality, and substance misuse. In contrast, developing or repairing emotional regulation brings great rewards for the child and the ability to self-regulate predicts high social competence, high academic scores, and low levels of negative emotions.

Chapter 6: A Different Perspective on Guidance

Van der Kolk (2005) provides educators with an important reminder:

“When professionals are unaware of children’s need to adjust to traumatizing environments and expect that children should behave in accordance with adult standards of self-determination and autonomous, rational choices, these maladaptive behaviours tend to inspire revulsion and rejection. Ignorance of this fact is likely to lead to labeling and stigmatizing children for behaviours that are meant to ensure survival” (p. 404).

Early experience influence the way a child understands his/her place in the world and the importance of his/her own actions. In a secure environment, children learn that the world is full of predictable patterns and that their behaviour is significant and will have predictable consequences. A toddler can be seen pulling books from the bookshelf, saying ‘no’ to himself, each time showing that he has learned the predictable response from his primary caregiver or the early childhood educator. Similarly, a four- year- old girl pushing another child knows an educator will ask her to stop and to listen to the other child tell her that pushing hurts her. These are examples of how a young child learns consequences for behaviour. This type of repetition, on the educator’s behalf, teaches the child that actions have significance.

If, in contrast, a four- year- old’s behaviour is met with unpredictable responses from his/her mother, for example, laughter, ignoring, gently correcting, or yelling ineffectually, then the world may be viewed as unpredictable, and the child will not learn his/her behaviour is significant to others. If this response pattern is repeated over and over, “the child may have difficulty with means-end thinking,” which could lead to problems with problem-solving and

following guidelines in a childcare program (Goldfinch, 2009, p. 291). Traumatized children tend to communicate what has happened, or is happening, to them not in words but by responding to the world as a dangerous place and by activating the “neurobiologic systems” geared for survival, even when they objectively are safe (van der Kolk, 2003, p. 309).

These challenges, caused by inconsistent guidance, are made much more powerful if fear, pain, or other traumatic emotions enter the situation. If the primary carer’s response is angry, aggressive, or frightening, a stress reaction may be provoked in the child, leading to heightened arousal. If the child’s state of heightened arousal is not met with a predictable response from the adult, the child may learn, or know, that those behaviours will not necessarily earn a response. In this situation, the child will opt for the short-term predictable pleasure of the undesirable behaviour and risk any consequences. This type of impulsive and short term behaviour is typical of traumatised children (Goldfinch, 2009).

Possible Reasons for the Behaviour

Studies of post-traumatic stress disorder and complex trauma have demonstrated that the age at which a child experiences, the trauma, the frequency of traumatic exposure, and the availability (or lack thereof) of caregivers as supportive resources all have a significant impact on the extent of the psychological consequences experienced by the child (Creeden, 2009). These consequences are exposed frequently through problems with self-regulation, aggression against self and others, problems with attention and dissociation, difficulties with self-concept, and the capacity to negotiate satisfactory interpersonal relationships (van der Kolk, 2003, p. 293). These studies suggest that the neurobiological impact of trauma will not express itself through a fixed set of cognitive, emotional, or behavioural difficulties, but rather along a continuum of structural

or functional neurological responses influenced by the developmental stage at which the child experiences trauma and the availability of supportive resources provided by the primary caregivers to the child (Creeden, 2009; Perry et al., 1995; van der Kolk, 2003).

The human body and mind have sets of primitive, deeply ingrained physical and mental responses to threat (e.g. fight, flight, or freeze) that in children look like challenging behaviours or maladaptive strategies (Perry et al., 1995). As stated previously, there are a number of neurological changes that are initiated by stressful events. In the initial stages, an alarm reaction is set off and the sympathetic nervous system is aroused, resulting in increased heart rate, blood pressure, respiration, an increase in muscle tone, and a sense of hypervigilance (Perry et al., 1995, p. 277). The limbic system then processes, regulates, and prioritizes all incoming sensory information from the brain stem (e.g. the changes in the sympathetic nervous system). The amygdala initiates bodily responses such as increased heart rate and activates the primitive responses— fight, flight, or freeze. This level of defence responsiveness bypasses the cortex, or the “thinking” part of the brain, allowing for immediate responses to the perceived threat (Perry et al., 1995, p. 264). Perry et al. (1995) reminds us that infants and children are much less likely to use a classic “fight or flight” response as it is not very practical; however, in child care environments, with children aged two to five, educators will, from time to time, see these responses in childcare environments.

Childcare environments are full of stimuli that could be considered threatening through the eyes, and mind, of a child with a complex trauma history. Such things as routines, guidelines, environmental sounds, increased noise level, staff, changes in staff or staff schedules, children of different stages and ages, social expectations, and separation from primary caregivers go

unnoticed to most children, but to a child impacted by trauma at any time, for any reason, these stimuli may feel threatening.

Confronted with a perceived threat, children shift to a hypervigilant mode, or are “on-guard,” so they can protect themselves in a moment’s notice. There is evolutionary value to this tactic to ensure viability of the species; however, children also pay a significant cost. Some consequences of this hypervigilant/hyperaroused state are “difficulties in affect regulation; problems effectively learning from highly charged emotional situations; and applying the new learning into future situations; decreased activation of the speech centre; social and relational problems generated by inaccurately reading social cues; and attentional problems from scanning the environment for threat while simultaneously dismissing information as unimportant when not viewed as a threat or safety related” (Perry et al., 1995, p. 264).

In the fight mode of response, the child is likely to respond with an act of hostility because the “thinking brain” has been bypassed in this heightened state. The child may hit the other person, throw an item at the other person, chase the other person, or take something away from the other person. In flight mode, the child may run away from the danger or run toward a person or place for safety. For others, freezing, even when an escape is available, is the most common response. The adaptive advantage of this response is clear. Freezing allows for better sound localization and a keener visual observation or environmental scan for potential threat (Perry et al., 1995, p. 279). The lack of movement is also a form of camouflage, reducing the chance of attracting a predator (p. 279). For some, the freeze response buys them some time to organize their feelings and thoughts and to figure out how they are going to respond to the situation. In childcare settings, this behaviour is sometimes labelled as defiant. For example, the

educator makes a request of the child to come and sit down for circle. The child acts as if they have not heard the request or that they are refusing to follow the direction. The educator follows up with the same directive or decides to physically guide the child to the circle area and asks the child to sit with the group. Unknown to the educator, this approach often increases the child's anxiety and leaves them feeling threatened and possibly out of control because both responses provide further threat to the child resulting in further retreat; the child may "come out swinging" as a way to reduce the anxiety (Perry et al., 1995, p. 280).

Perry and colleagues (1995) state if the child is pushed too far and feels continually terrorized, the freezing may result in dissociation. Simply stated, dissociation is disengaging from stimulus in the external world and attending the stimuli in the internal world. Traumatized infants and young children may daydream, avoid, have restricted affect, and sound robotic (p. 281).

A Shift in Practice

The pervading impact of behaviourist theory approaches means it is common for educators to perceive children's behaviours negatively, as attention-seeking. In many busy early childhood settings this may indeed be the only way some children will be noticed. Hoffman, Marvin, Cooper, & Powell (2006) suggests children's behaviours are actually motivated by a "desire for connection," whereas educators may view the behaviour as disruptive, attention-seeking, and unnecessary (p.1020). In the field of complex trauma, researchers suggest educators consider a new approach. Instead of working from a behaviouralist framework, educators might consider shifting to an attachment framework.

Attachment Framework

Working from an attachment model requires the educator to look more deeply into the reason for behaviours (Rolfe, 2004). An attachment framework suggests it is important for the child to develop trusting relationships in which the adult behaves consistently, accepting the child at all times, while providing support to limit fear or stress response behaviours. It is understood that while the educator's relationship with the child is not intended to replace the child's relationship with their primary caregivers the role of the educator is nevertheless one of significance and can help the child learn new ways of relating (Kinniburgh et al., 2005).

Role of the Early Childhood Educator

Attachment figures, by definition, potentially include all persons from whom a child might reasonably expect care and protection from danger. Attachment figures also include those who provide care, both physical and emotional, are continuous or consistent caregiving figures in a child's life, and who have an emotional investment in the child (Rolfe, 2004). A primary attachment system provides the security and safety necessary for children to master an array of developmental tasks, or competencies, including the ability to self-regulate, develop positive relationships, and acquire the cognitive skills relevant for learning (Rolfe, 2004, p. 220). Early childhood professionals and settings potentially meet all of these criteria. Despite the quality of attachments children have at home, educators are people to whom children can form securely attached relationships. In the case of children with complex trauma histories, the role of the early childhood educator is crucial in dramatically diminishing the alarm response by offering the child a calm, empathetic response so they can benefit from what an attachment system can provide (Kinniburgh et al., 2005).

Tips and Strategies for the Early Childhood Educator

Avoid Talking at the Child. When a child is feeling dysregulated, he or she is primarily operating from the brain stem, the most primitive area of the brain that activates the child's sympathetic nervous system and sensorimotor behaviours. When this area is 'in charge' it is difficult for the child to hear the educator's attempt to talk and rationalize with the child. To be successful with talking and rationalization the child has to access the neocortex and when the child is under stress, this area of the brain is bypassed. Instead, give the child time and space to settle his or her self, a process that often takes 20 minutes. To assist the child in calming, make available materials the child finds soothing.

Create Safety. Van der Kolk (2003) says educators, and parents, can help children deal with stress and stressful environments by providing them with a physical sense of safety this may include holding or rocking and by showing the child that when his or her own resources fail, someone else is there to take over to re-establish a sense of safety and predictability. When these soothing controls are not present, children are more likely to demonstrate difficulties with cognition, impulse control, aggression, and emotion regulation (Van der Kolk, 2003, p. 311).

Young children need help focusing their attention away from trauma-related triggers and on to those that provide a sense of mastery and pleasure: "Safety, predictability, and fun are essential in establishing the capacity to observe what is going on to initiate physiological motoric self-regulation" (van der Kolk, 2005, p. 407).

Attunement. Attunement is part of building a secure relationship. The concentration is on reading each other's cues and responding effectively. Children are more likely to respond to attempts by the caregiver to shift them from a place of high internal stress with a higher tolerance

to external stress when they can feel that the person “has their back”. Educators, on the other hand, want to learn how to understand the child’s behaviour in the context of the trauma history. This can be difficult because they may not always know the history, or the family, or the designate family, may not share the information with the childcare providers.

Another way for educators to achieve attunement is by serving as a mirror to the child, reflecting back the child’s expressions and feelings. This approach assists the child with developing a sense of both the “other” and the “self.” This development will strengthen children’s emotional literacy and self-regulatory skills, over time increase tolerance levels, and build the ever so important trusting relationship with an adult.

Opportunity for Recovery. After a child has felt, or perceived to be, threatened they may want to recover when they feel safe. Children enjoy activities such as rocking (in a chair or on the floor), reading a quiet story on their own or with a caregiver, exploring a sensory activity (such as water or rice), or being outside.

Routine and Predictability. For some children, lack of routine and predictability is unsettling and, in some instances, triggers their defence systems to engage and protect. Caregivers will want to strive to offer the child safety and predictability through routines, expectations, and in their approaches to the child each day. If the child has lived in an environment void of structure and routine, he or she may form a perception that the world is unpredictable and dangerous. One of the key strategies an educator may try in order to restore a sense of safety for a child involves implementing predictable daily routines that establish safety, help children organize experience, and develop mastery (Arvidson et al., 2011). When young children have structure in daily living with attention to predictable schedules and sequential

tasks, they feel safer, decreasing their need to control their environment with problematic behaviors (Cook et al., 2005). Pictographs, symbols and pictures, to represent the routine and the choices of the day are helpful. When children are in a high arousal state, they are operating primarily from the brain stem and, therefore, cannot complete higher order brain functions like planning, problem solving, and communicating their needs and desires. This strategy gives them a sense of mastery without asking them to necessarily perform these skills.

Assist with the Management of Arousal. Sometimes children find themselves in difficult situations because they are unclear as to how to manage their arousal. When emotions and behaviours are dysregulated children are more likely to have poor frustration tolerance, to lose their temper easily, or to lose control when anxious. Caregivers can create fun opportunities for children to practice modulating their emotional levels that will develop mastery in these areas such as in a larger room, or outside, have the children line up at one end of the room with enough space between them to move around comfortably and safely. Ask the children to travel to the other side of the room emulating an animal that you call out, could be a bear, dinosaur, frog, snail, snake, lion, etc. Once the children are to the other side choose another animal for them to emulate. The idea in the animal selection is that you choose between animals that run, are big, are loud, are small, are quiet, and are fast. In doing so, children are practising modulating different levels of affect as they have fun emulating each animal while being successful in a group experience.

Another activity is bubble blowing. Through bubble blowing, children will learn how to alternate between states of high and low activity and affect. The objective is for children to practice blowing bubbles of different sizes. Ask the children to blow large bubbles, which require long,

slow, breaths. Then ask the children to blow small bubbles, which require forceful quick breaths. By alternating between these two states, children are learning how to go back and forth between physical and emotional states by modulating their own breath (Arvidson et al., 2011).

Chapter 7: The “Resilience Factor”

A Resilience Perspective

Intuitively, we know people who function well even though life has dealt them a difficult hand and we also know people who appear unaffected even in the face of a major disaster or who only show some minor reactions and function adequately afterwards (Brom et al., 2009).

Resilience is not static; it may vary over time and across developmental phases. For example, a person's resilience status can change from resilience to nonresilience and vice versa (Afifi & MacMillan, 2011). A resilience perspective prioritizes knowledge about developmental experiences that have the potential to help the child (and later the adult) cope effectively with the inevitable adversities that arise in life (Rolfe, 2004). Resilience has been defined as “the ability to adapt effectively in the face of adversity and it is a mechanism or process that helps the individual be resistant to stress” (Rolfe, 2004, p.73). Although none of us are born resilient, there are some innate characteristics, including having an easy temperament, that seem to have a role in facilitating resilience. Resilience develops as a result of particular kinds of interpersonal experience, including those that promote high self-esteem, self-efficacy, optimism, and coping skills during infancy and the childhood. Signs of emerging resilience are apparent early in life:

Six month olds who cry lustily to express hunger or protest strongly when frustrated or angry, are developing a sense of their own agency and ability to impact on their world. Two year olds who assert their independence with confidence, who persist in the face of challenge, and who can turn to significant adults for comfort and support when needed, are showing they have a developing sense of trust in themselves and others. Four and five year olds who tackle new

learning tasks with curiosity, wonder, and energy, and who explore new relationships with confidence or challenge traditional gender-based roles during play are showing optimism at work (Rolfe, 2004, p. 74).

Secure Attachment as a Protective Factor

Broadly defined, protective factors are those that promote resilience. From the outset, attachment theory linked the experience of secure attachment with the development of resilience (Rolfe, 2004). Rolfe (2004) describes Bowlby's conclusion to his first volume of the attachment trilogy by saying:

In his view, when the young child experiences supportive, encouraging, and cooperative caregiving, high self worth, and expectations of the helpfulness of others develop. Feelings of self-competence also grow because this kind of caregiving enables the child to explore with confidence and respond effectively to the environmental demands encountered (Rolfe, 2004, p. 75).

In the 1950s, a study to reveal a link between resilience and early relationships was conducted on the Hawaiian island of Kauai. The sample consisted of 700 children and their families and spanned over 40 years. Initially, the aim was to focus on the negative effects of risk factors and to document the long term consequences of prenatal and perinatal stress on cognitive, emotional, and physical development (Werner & Smith, 1992). However, over time, the researchers became interested in a group, about one-third of the sample, who were classified as high risk and yet developed into adults who were resilient. Werner (1989) defined resilient adults as those who "Loved well, worked well and played well despite their exposure to multiple risk factors over their childhood" (Werner, 1989, p. 4). What was present in these people's lives and

missing from those who were not resilient? The first protective factor was that of childhood temperament. The importance of an easy, outgoing temperament is that it appears to elicit positive responses from others and thus facilitate early positive relationship experiences (Afifi & MacMillan, 2011; Werner & Smith, 1992). Next, the individual had formed a close, positive relationship with at least one family member, although not necessarily a parent, who knew the child well and was committed to the child's well-being. Lastly, they had the opportunity to connect with outside family supports that provided meaningful opportunities to be involved with others (Werner & Smith 1992).

Adversity and Risk Factors

Adversity is present in all aspects of everyday life, from minor disappointments and hassles through to major trauma. At some time or another most secure, autonomous and optimistic children are faced with challenging events like the birth of a sibling, moving house, or making the transition to a new childcare or school experience. Some children experience major adversity, significant environmental risks, including poverty, abuse, neglect, violence, parental substance misuse, natural disasters, or loss of loved ones. These may be short lived or chronic, but they act to put the child's well-being at risk. Risk factors rarely occur as a single or isolated stressful life event. More often, multiple risk factors are present and resilient children, by definition, have better developmental outcomes under such challenging circumstances (Martinez-Torteya, Bogat, von Eye, & Levendosky, 2009). There is always a shifting balance between vulnerability and resilience depending on the extent to which risk and protective factors are present. How well a child copes with adversity is largely determined by the nature of the stressor

or trauma, how long it lasts, its intensity, and the nature and availability of supports at the time (Rolfe, 2004).

Resilience and Childhood Trauma

At all ages, secure attachment can create resiliency and help buffer an individual against the worst effects of trauma (Herman, 1992). Children learn how to be resilient in the face of trauma by watching, and learning from, others process traumatic events. Without the relationship or attachment that comes to symbolize “mutual relatedness,” a person’s ability to develop resilience is challenged (Williams, 2006, p. 325).

Early childhood educators cannot erase the effects of trauma on children’s individual make-up, but they can become a positive mediating factor. By nurturing children’s ability to rebound from challenges, early childhood professionals can help children become resilient, despite their early experience with trauma.

To become an effective “resilience factor” for children, educators must be aware of the effects of trauma on children. Early childhood educators need to be alert to symptoms that children may experience as a result of a traumatic event. With such knowledge, educators can make specific adjustments in environments, routines, and care and guidance. If educators do so with intentional and consistent effort, they can help traumatized children feel more trusting, safe, secure, and helpful about life, despite their personal experience.

The Role of the Early Childhood Educator in Promoting Resilience

Masten and Osofsky (2010) identify several key factors associated with resilience. These are “connections to competent and caring adults in the family and community, cognitive and self-regulations skills, positive views of self, and motivation to be effective in the environment”

(p. 1036). Drawing on these factors, early childhood educators can promote resilience in three main ways: (1) through secure relationships with children; (2) through the positive emotional, social, and cognitive experiences they provide for children; and (3) through the support they provide to others who are responsible for the child's care (i.e. parents and other family members) (Rolfe 2004).

Case Scenario

In this case scenario, we learn more about four- year- old Helina's background. As you read her family circumstances, think about the material in this chapter and the potential contribution of the early childhood educator's role in promoting her resilience.

Steven, Helina's preschool teacher, has written the following note about Helina and her family:

Helina is the fourth child in a family of five children. Two of Helina's older siblings are currently in foster care due to protective concerns around issues of environmental neglect in the home and issues of parental substance misuse and domestic violence. The remaining three children, including Helina, spend every alternate weekend in a respite placement requested by their mother. Helina's parents separated two years ago, and Helina rarely sees her father. The family is well known to the Ministry of Children and Families Child Protection services.

Helina and her younger sibling, aged two years, are required to attend a childcare program as part of their current court orders. Helina's teachers at preschool have formed a positive relationship with Helina's mom, Renee. At the beginning, during Helina's first year in the three year old group, Renee was very reluctant to come in the classroom, and often someone else picked Helina up at the end of morning. Steven, Helina's teacher, encouraged Renee to stay

occasionally to see what Helina did during her time at preschool. Over time, she indicated an interest in helping out once in a while preparing morning snack. Now, halfway through Helina's four year old preschool year, Renee is a regular helper.

Renee now talks often to Steven and the other educators about Helina's behaviour and development. She identifies them as amongst her main parenting supports (Rolfe, 2004, p. 86).

Questions for Reflection

- How does the preschool promote Helina's resilience?
- What challenges confront Renee in becoming an active member of this early childhood community?
- How have the educators assisted and supported Renee?
- What is the likely impact of preschool on Helina's resilience?

Discussion Points

In an earlier case scenario (Chapter 2) we saw how Helina's behaviour shows security in her relationship with Steven. Steven is directly contributing to Helina's resilience as a figure of secure attachment. The case scenario in this chapter reveals another way Malcolm and his colleagues are promoting Helina's resilience: by supporting her mother, and, through this, helping Renee build a more positive relationship with her daughter (Rolfe, 2004).

Promoting Resilience

A child's resilience depends on a number of factors. For instance, children born with a more flexible, social and easy temperament, and an optimistic attitude tend to bounce back from adversity more effectively. Early childhood educators of course do not have control over these

genetic factors, but there are other ways educators can influence a child's ability to flourish, despite vulnerability. Here are some strategies staff can apply to support all children's resilience.

Strong One-on-One Relationships. Let children know you are a safe, reliable, person to turn to for help. Research shows that one consistent, supportive, attentive, and responsive person in a child's life can go a long way toward building resilience (Afifi & MacMillan, 2011).

Create Stable and Predictable Schedules and Routines. Keep to a "no surprises" schedule. Help anxious children anticipate what is coming next by providing warnings about changes in staff or routine. In some instances, you may give them an opportunity to role play or go through a "rehearsal" to prepare them for a field trip or an upcoming celebration.

Track Behavioural Cues. Keeping a diary to document any behavioural clues will assist educators in finding any patterns that may exist. Once a pattern is identified staff can review the observations and create a coordinated strategy to help the child and his or her family. Calm responsive efforts to support all involved can promote greater emotional health through open communication and constructive problem solving (Stephens, 2010). Throughout that responsive process, children's resilience is fostered.

Be an Emotionally Literate Educator. Assist children in identifying emotions by modeling a rich emotional vocabulary. This will help children learn how to express and act on powerful emotions. You can do this by matching words with facial expressions. Introduce new words to "name" feelings associated with anger such as frightened, anxious, mad, scared, worried, afraid, or mad.

Be an Interpreter. Assist children in interpreting others' emotions. Gently remind children that everyone has feelings and rights. Being sensitive to others' emotions and then

taking into account different perspectives is hard for young children; it is a high level thinking skill. You can become an emotional coach for children by translating others' body language. For example, "Scott is crying because he is mad that someone grabbed his toy from him and he wants it back." If a child becomes physical with a peer, model other ways that he/she may let the other child know how they are feeling so they don't have to rely on physicality. When a child uses his/her new skills comment on the child's respectful expression of anger: "I heard you and Jenny arguing over the bike. It worked well when you let her know you would pass it to her when you are finished."

Create Safe Spaces. Affirm that everyone has equal rights to emotional and physical safety in the classroom. Let the children see social justice put into action so they can observe and see the positive outcomes that can come from conflict situations and how the staff is available to everyone.

Be a Resilient Thinker. Adult modeling of resilient, accurate and flexible thinking is crucial during the early years. We can model such thinking by talking out loud about our own struggles and encounters with daily stress: "Whoops, I spilled the milk. I'll get a towel to wipe it up." "Right now I feel frustrated because I can't get the lid off the jar. I will try one more time then I will ask Penny to help me." Talking out loud helps children see that situations of adversity do not always have to last a long time (Pearson & Kordich Hall, 2006).

Promote Classroom Well-Being. Consider what can be done to promote classroom well-being. One way is to consider how to reduce sound elements in the classroom. Stressed and traumatized children can be overwhelmed by excessive and unexpected noises. They may have a strong "startle reflex" that has a quicker trigger than the typical child's. Keeping the environment

uncluttered, organized, also contributes to environment well-being. Create areas where children can be with one another in a relaxed way. To assist with this, avoid having too much stimuli and have fewer resources in the room at one time through periodic rotation. Traumatized children often have trouble concentrating because they are vigilantly on the lookout, waiting for something to happen. An uncluttered living and learning space helps them focus and maintain calmness (Stephens, 2010).

Connect Children to Sensory Relaxation Activities in Nature. Provide stress-relieving activities, including sensory art materials, sand and water play, gardening, singing and dancing to music, outdoor and nature play. Research shows nature can be soothing for children. The regular cycle of seasons and all the sensory delights of varying seasons help build children's sense of attachment and security. Evaluate your outdoor space for cozy retreats. A natural "green" retreat is soothing. Use the natural elements in your outdoor space such as shady trees, tents, rocking chairs, pillows, etc. Observe the child over time and consider what that child needs from his/her outdoor space. Some children like fanciful spaces to play, to listen to wind chimes, or to hear the trickle of a water fountain as a way to relax, while other children prefer places to take safe risks such as climbing and jumping off of stumps, moving heavy rocks, and rough and tumble play (Stephens, 2010).

Adopt a Classroom Pet. If you have time and space to care for them well, include a safe, approachable pet in your classroom. Animals give children a sense of unconditional love and an ear that listens patiently.

Early childhood programs are often the first resource beyond the extended family that children encounter. That puts educators in a pivotal position to reach out to children who have experienced complex trauma and to support their resilience.

Chapter 8: Don't Forget About Yourself!

“The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet” (Remen, 1996)

What is Involved with Caring?

A primary task of early childhood educators is first and foremost to meet the physical and emotional needs of the children. This can be an immensely rewarding experience, and it is this contact with children that keeps many of us working in the field. Some educators call it a “calling,” a type of work that requires a unique and specialized skill set. However, this type of work can also consist of stressful working environments, cynicism and negativity, dwindling resources, and low job satisfaction.

Working with children who have been traumatized can be difficult for even the most gifted and caring professionals. Exposure to tragic stories of children can shake an educator's views and beliefs about the world and the people in it. The traumatic experience faced by a child can trigger the same feelings of fear, anxiety, and hopelessness in the educator as in the child. Exposure to traumatic stories can bring up long-buried emotions or memories from the caregiver's childhood. These reactions are normal and can have a negative impact. It is very important that educators take care of their own health and well-being, so they can thrive as individuals and as professionals.

There are a number of terms, from various fields of counselling, that describe this phenomenon. It has been described as burnout, vicarious traumatization, secondary victimization, and secondary traumatic stress. A similar concept, “emotional contagion,” is defined as an affective process in which “an individual observing another person experiences

emotional responses parallel to that person's actual or anticipated emotions" (Miller, Stiff, & Ellis, 1988, p. 254).

Most early childhood professionals would say "you know burnout when you feel it." Feelings of stress, exhaustion, and sadness are common feelings among those who provide early care and learning to young children. Burnout is a very real and debilitating state that affects job performance and health. It is a state of physical, emotional, and mental exhaustion caused by long-term involvement in an emotionally demanding situation (Pines, Aronson & Kafry, 1988). (See Table 5) Early childhood educators describe feelings of frustration, anger, and sadness. They feel exhausted and have headaches, stomach upset, and muscle aches and pains. Those who feel burned out just do not look forward to going to work most days. These negative feelings persist over time.

Table 5
Possible Signs of Burnout

- Exhaustion, feeling depleted and "used up"
- Feeling detached and/or emotionally numb and callous
- Reduced sense of accomplishment, purpose and meaning connected to work
- Negativity, cynicism, and blame
- Self-doubt and feeling incompetent, overwhelmed or helpless
- Decline in performance and productivity at work
- Feeling unappreciated
- Feeling "used" and angry
- Increased impatience, irritability, and relationship conflicts
- Mistrusting colleagues motives and actions

Adapted from Headington Institute (n.d.)

Early childhood educators who work with traumatized children are exposed to unique and intense stressors that can have a strong impact in the caregiver's physical and emotional well-being. These reactions to the work may be more than burnout. Experts have discovered that caregivers who work with traumatized children can develop "vicarious traumatization."

Vicarious traumatization described by Pearlman and Saakvitne, (1995) is a process through which the person's inner experience is negatively transformed through empathetic engagement with the traumatized person's trauma material or "the negative effects of caring about and caring for others" (p.31). Vicarious trauma unfolds over time and is not just a response to one child, one story, or one situation. This process of change happens over time because educators care about other people who have been hurt and feel committed or responsible to help them. Some educators feel deeply and profoundly changed by working so closely with traumatized children. Changes can be felt, and noticed, on a psychological, physical, and spiritual level. An educator's expectations may be too high resulting in feeling burdened, overwhelmed, and hopeless. Their inner view of the world and the people in it becomes disrupted and sometimes troubled. A key component of vicarious trauma is changes in the educator's concept or sense of his or her own spirituality, which can impact the way a person sees the world and their deepest sense of meaning and hope (Pearlman & Courtois, 2005). This deep transformation of the caregiver's inner experience is a primary condition of vicarious traumatization (Fitzgerald-Rice & McAlister-Groves, 2005). People begin to feel that their beliefs in the world are shaken and they see the world in a troubling new way. Vicarious traumatization in the caregivers occurs when they have troubles coping with the story of the trauma, just as the child has trouble coping with the trauma experience (p.48).

Signs of Vicarious Trauma

Working with traumatized children can be especially difficult for educators who have their own traumatic life histories. These caregivers may be the most empathic and helpful to children because they can understand what the child may be experience. However, they can also

be at the greatest risk for this type of trauma if they lack the coping strategies and support to manage their reactions. If an educator is identifying with a child's trauma history, he or she, may be overwhelmed with feelings of sadness, anger, anxiety, and helplessness. (See Table 6).

Taking Care

Fortunately there are many ways educators can support and nurture themselves as professionals caring for young children. The first step is recognizing that the best way educators can care for children is to keep themselves mentally and physically healthy. Educators who are used to caring for everyone else except themselves may have a hard time rethinking their behaviour (Fitzgerald-Rice & McAlister-Groves, 2005). If providers prioritize their self-care, they are giving two gifts – one to themselves and one to the children in their care.

Table 6

Signs of Vicarious Trauma

Feelings	<ul style="list-style-type: none"> - Overwhelmed, exhausted, overloaded, burnt out - Loss of pleasure, apathetic, depressed, despairing that anything can improve - Overly emotionally involved with the client - Experience bystander guilt, shame, self-doubt
Cognitions	<ul style="list-style-type: none"> - Preoccupied with thoughts of clients outside of work - Loss of hope, pessimism, cynicism - Question competence, self-worth, low job satisfaction
Behaviour	<ul style="list-style-type: none"> - High general distress level - Difficulty maintaining professional boundaries
Organization	<ul style="list-style-type: none"> - High job turnover - Low morale - Absenteeism - Job Dissatisfaction - Organizational contagion

(Meichedbaum, n.d., p. 5)

Stress Management

Bodies respond to stress in physical and emotional ways. When the mind sees threat in the environment, it triggers a chemical reaction in the body that prepares it to deal with stress. The brain tells the body to breathe faster, tense muscles, and get ready to run or defend itself. This is the “wear and tear” of chronic stress – bodies in a chronic state of arousal without relief (Fitzgerald-Rice & McAlister-Groves, 2005, p.49). Chronic stress is related to physical illness such as headaches, stomach problems, back aches, and even heart disease. Fortunately, the mind is able to calm the stress response just as the mind can trigger it. The body can release chemicals that counteract the stress response and return the body to a relaxed state (Fitzgerald-Rice & McAlister-Groves, 2005, p. 49).

Peer Support and Creating a Climate of Respect

Positive connections with coworkers and support from colleagues can offer healthy protection from job stress and trauma. Many early childhood professionals say that no one understands the stress of working with young children better than other early childhood educators. Trusted peers and coworkers can listen and empathize without judging. Professionals who treat each other with respect and care model for children how healthy relationships work (Fitzgerald-Rice & McAlister-Groves, 2005, p.49). Simple practices such as saying hello and good bye, complimenting hard work, and listening can set a positive professional tone in a program. It is critical that administrators, supervisors, and staff model the kinds of relationships they wish to promote among families and children.

Supervision and Mentoring

An essential component of quality early childhood programs is staff supervision that meets the needs of professionals working with traumatized children and families. Fitzgerald-Rice and McAlister-Groves (2005) highlight that educators are only beginning to see the importance of quality supervision in the early education field. Quality supervision is process-oriented, allowing the caregiver to reflect on her/his feelings and reactions related to the work in a safe environment. This type of supervision focuses on processing the experiences of the educator rather than instructing the person. The educator grows then as a professional and copes with difficult feelings by talking, sharing, and reflecting with the supervisor or mentor. Supervisors use the caregiver's experiences as teaching tools, assisting him or her in discovering solutions to problems rather than just giving information and telling them what to do.

A Moment for Reflection

1. *What are three activities you do regularly, or enjoy doing, that can help you with burnout or vicarious trauma?*
2. *Why do you think these activities help you in coping with vicarious trauma? Consider how these activities can help counteract your risk factors for burnout or vicarious trauma.*

More Self-Care Ideas

Take stock- What's on your plate? To make changes and improvements you want to figure out where the problem areas are. Start by taking a non-judgemental inventory of where things are at in your life. Make a list of all the demands on your time and energy (work, family, home, health, volunteering, other). Try to make this list as detailed as you can. For example,

under the work category, list the main stressors you see (long days, not taking a break in the day, not having lunch, struggling with co-worker, struggling with a parent). Once you have the list, take a look at it. What stands out? What factors are contributing to making your plate too full? Life situations or things you have taken on? What would you like to change most? If you are comfortable sharing this with a trusted friend or colleague, have a brainstorming discussion with them on strategies and new ideas.

Start a Self-Care Idea Collection. This can be fun. You can do it with friends and at work. *With friends:* Interview three friends on their favourite self-care strategies. Start making a list even if they are not ideas that you would do/are able to afford at the moment. Something new might emerge that you had not yet thought of. *At work:* If you are doing this at work, you could even start a contest for the best self-care idea of the week or have a “self-care board” where people post their favourite ideas. You could have a “5 minutes of self-care” session at each staff meeting where someone is in charge of bringing a new self-care idea each week. Once you have a really nice long list, pick three ideas that jump out at you. Make a commitment to implementing these in your life within the next month. Ask a friend/colleague if they would commit to supporting you (and you them) in maintaining your self-care goals. This could mean that they go to the gym with you every Thursday, or that they e-mail you at lunch to remind you to get out of your office. This is a wonderful way to stay on track and to validate your own experiences by sharing them

Have a transition from work to home. Do you have a transition time between work and home? Do you walk in the door to kids fighting and hanging from the curtains or do you walk into a peaceful house? Do you have a transition process when you get home? Do you change

clothes? It is often said that one of the best strategies involves a transition ritual of some kind: putting on cozy clothes when getting home and mindfully putting work clothes “away” as in putting the day away as well, having a ten minute quiet period to shift gears, and going for a run. Do you have a transition ritual? (Mathieu, 2007).

Concluding Thoughts

I wrote this manual to provide early childhood educators with knowledge on complex trauma, with an understanding of the impact of trauma on children's development ages two to five, and with some intervention strategies. Moreover, I endeavoured to foster educators' affective and intellectual awareness and capacity to support children and families impacted by complex trauma in early care and learning environments.

The manual explores what complex trauma is and its relationship with children's development. By exploring attachment theory and the impact of trauma on attachment, I was able to highlight the opportunity educators have to be strong attachment figures for the children in their care. Children are resilient, and as the manual points out, despite the resilient capabilities of children, trauma leaves an indelible mark on children's development. However, with responsive and sensitive caregiving, children have the capacity to cope.

Early in the manual I shared my story of Jason and Kevin and the many challenges I encountered professionally. Reflecting back, I feel it is imperative that I conclude this manual by focusing on the gifts they gave to me. They taught me that life can be extremely and unnecessarily hard for very young children. But despite that, with love, understanding, and determination, their lives can be a little bit better. Instead of feeling burdened by these relationships, I believe they added deep meaning to me professionally and personally.

The writing of this manual has been, in part, about reflecting on and rethinking practice and the impact it will have on these children. My concluding wish is that every child whose life has been impacted by complex trauma can experience being seen for who they are meant to be and not for the limits placed upon them by traumatic experiences.

References

- Afifi, T. & MacMillan, H. (2011). Resilience following child maltreatment: A review of protective factors. *Canadian Journal of Psychiatry, 56*(5), 266-272. Retrieved from <http://www.ebscohost.com/academic/academic-search-premier>
- Aideus, D. (2007). Promoting attachment and emotional regulation of children with complex trauma disorder. *International Journal of Behavioural Consultation and Therapy, 3*(4), 546-553. Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ801239&ERICExtSearch_SearchType_0=no&accno=EJ801239
- Akiba, D. & Alkins, K. (2010). Learning: The relationship between a seemingly mundane concept and classroom practices. *The Clearing House, 83*(2), 62-67.
doi:10.1080/00098650903505357
- Anda, R.F., Croft, J. B., Feletti, V.J., Nordenberg, D., Gile, W.H., Willaimason, D.F., & Giovini, G.A. (1999). Adverse childhood experiences and smoking during adolescence and adulthood. *Journal of the American Medical Association, 282*(17), 652-1668. doi: 10.1001/jama.282.17.1652
- Arvidson, J., Kinniburgh, K., Howard, K., Spinazzola, J., Strothers, H., Evans, M., ... & Bluastein, M. (2011). Treatment of complex trauma in young children: Developmental considerations in application of the ARC intervention model. *Journal of Child and Adolescent Trauma, 4*(1), 34-51. doi: 10.1080/19361521.2011.545046

- Brom, D., Pat-Horenczyk, R., & Ford, J. (Eds.) (2009). *Treating traumatized children: Risk, resiliency, and recovery*. New York, NY: Routledge Taylor & Francis Group.
- Brown, L. S. (2008). *Cultural competence in trauma therapy: Beyond the flashback*. Washington, DC: American Psychological Association.
- Cohen, J. & Scheeringa, M. (2009). Post-traumatic stress disorder diagnosis in children: Challenges and promises. *Dialogues in Clinical Neuroscience, 11*(1), 91-99. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3181905/>
- Colmer, K., Rutherford, L., & Murphy, P. (2009). Attachment theory and primary caregiving. *Australasian Journal of Early Childhood, 36*(4), 16-20. Retrieved from http://www.earlychildhoodaustralia.org.au/australian_journal_of_early_childhood/ajec_index_abstracts/attachment_theory_and_primary_caregiving.html
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., ...van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals, 35*(5), 390-398. Retrieved from <http://www.traumacenter.org/products/Complex%20Trauma%20White%20Paper.pdf>
- Cook, F., Ciorciari, J., Varker, T., & Devilly, G. (2009). Changes in long term neural connectivity following psychological trauma. *Clinical Neurophysiology, 120*(2), 309-314. doi:10.1016/j.clinph.2008.11.021
- Courtois, C. & Gold, S. (2009). The need for inclusion of psychological trauma in the professional curriculum: A call to action. *Psychological Trauma: Theory, Research, Practice, and Policy, 1*(1), 3-23. doi: 0.1037/a0015224

- Creeden, K. (2009). How trauma and attachment can impact neurodevelopment: Informing our understanding and treatment of sexual behaviour problems. *Journal Sexual Aggression, 15*(3), 61-273. doi: 10.1080/13552600903335844
- De Young, A., Kenardy, J., & Cobham, V. (2011). Trauma in early childhood: A neglected population. *Clinical Child and Family Psychological Review, 14*(3), 231-250. doi: 10.1007/s10567-011-0094-3
- De Zulueta, F. (2006). Inducing traumatic attachment in adults with a history of child abuse: Forensic applications. *The British Journal of Forensic Practice, 8*(3), 4-15. doi: 10.1108/14636646200600015
- Felitti, V. J., Anda, R. F., Norderberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... Marks, J. S. (1998). Relationship of childhood abuse and the household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventative Medicine, 14*(4), 245–258. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/9635069>
- Fitzgerald-Rice, K. & McAlister-Groves, B. (2005). *Hope and healing: A caregivers' guide to helping young children affected by trauma*. Washington, DC: Zero to Three.
- Foran, L. (2009). Listening to music: Helping children regulate their emotions and improve their learning in the classroom. *Educational Horizons, 88*(1), 51- 58. Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=EJ868339&ERICExtSearch_SearchType_0=no&accno=EJ86833
- 9
- Fraley, C. & Shaver, P. (2000). Adult romantic attachment: Theoretical developments, emerging

controversies, and unanswered questions. *Review of General Psychology*, 4(2), 132-154.
doi: 10.1037//1089-2680.4.2.132

Goldfinch, M. (2009). 'Putting humpty together again': Working with parents to help children who have experienced early trauma. *The Australian and New Zealand Journal of Family Therapy*, 30(4), p. 284-299. Retrieved from
<http://www.ebscohost.com/academic/academic-search-premier>

Henry, J., Sloane, M., Black-Pond, C. (2007). Neurobiology and neurodevelopmental impact of childhood traumatic stress and prenatal alcohol exposure. *Language, Speech & Hearing Services In Schools*, 38(1), 99-108. doi: 10.1044/0161-1461(2007/010)

Herman, J. (1997). *Trauma and recovery*. New York, NY: Basic Books.

Hoffman, K., Marvin, R., Cooper, G., & Powell, B. (2006). Changing toddlers' and preschoolers' attachment classifications: The circle of security intervention. *Journal of Consulting and Clinical Psychology*, 74(6), 1017-1026. doi: 0.1037/0022-006X.74.6.1017

Holyoke, L. & Larson, E. (2009). Engaging the adult learner generational mix. *Journal of Adult Education*, 38(1), 12-21. Retrieved from
http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ891074&ERICExtSearch_SearchType_0=no&accno=EJ891074

Hooker, K., & Fodor, I. (2008). Teaching mindfulness to children. *Gestalt Review*, 12(1), 75-91
Retrieved from

<http://www.gisc.orgwww.gisc.org/gestaltreview/documents/TeachingMindfulnessstoChildren.pdf>

Kaffman, A. (2009). The silent epidemic of neurodevelopmental injury. *Biological Psychiatry*, 66(7), 624-626. doi: 10.1016/j.biopsych.2009.08.002

Kenner, C. & Weinerman, J. (2011). Adult learning theory: Applications to non-traditional college students. *Journal of College Reading and Learning*, 41(2), 87-96. Retrieved from <http://www.eric.ed.gov>

Kinniburgh, K., Blaustein, M., Spinazzola, J. (2005). Attachment, self-regulation, and competency: A comprehensive intervention framework for children with complex trauma. *Psychiatric Annals*, 35(5), 424 – 430. Retrieved from http://www.traumacenter.org/products/pdf_files/ARC%20Intervention%20Framework.pdf

Koplow, L. (2007). *Unsmiling faces: How preschooler can heal*. (2nd ed.). New York, NY: Teachers College Press.

Layne, C., Strand, V., Abramovitz, R., Jackson, L., Curtis, A., Pynoos, R., ... Lipscomb, L. (2011). The core curriculum on childhood trauma: A tool for training a trauma-informed workforce. *Psychological Trauma: Theory, Research, Practice, and Policy*, 3(3), 243 – 252. doi: 10.1037/a0025039

Levine, P., & Kline, M. (2007). *Waking the tiger*. Berkeley, CA: North Atlantic Books.

Lieberman, A. & Knorr, K. (2007). The impact of trauma: A developmental framework for infancy and early childhood. *Psychiatric Annals*, 37(6), 416-422. Retrieved from <http://www.ebscohost.com/academic/medline-with-full-text>

- Main M. & Hesse E. (1990). Parents' unresolved traumatic experiences are related to infant disorganized attachment status: Is frightened and/or frightening parental behavior the linking mechanism? In Greenberg M, Cicchetti D, Cummings EM, (Eds.), *Attachment in the preschool years: Theory, research and intervention*. (161–184). Chicago: University of Chicago Press.
- Malchiodi, C. (Ed.). (2008). *Creative interventions with traumatized children*. New York, NY: Guilford Press.
- Martinez-Torteya, C., Bogat, A., von Eye, A., & Levendosky, A. (2009). Resilience among children exposed to domestic violence: The role of risk and protective factors. *Child Development, 80*(2), 562-577. doi: 10.1111/j.1467-8624.2009.01279.x
- Masten, A. & Osofsky, J. (2010). Disasters and their impact on child development: Introduction to the special section. *Child Development, 81*(4), 1029-1039. doi:10.1111/j.1467-8624.2010.01452.x
- Mathieu, F. (2007). *Transforming Compassion Fatigue into Compassion Satisfaction: Top 12 Self-Care Tips for Helpers*. Kingston, ON. Retrieved from <http://www.compassionfatigue.org>
- Mattar, S. (2011). Educating and training the next generations of traumatologists: Development of cultural competencies. *Psychological Trauma: Theory, Research, Practice and Policy, 3*(3), 258-265. doi: DOI: 10.1037/a002447
- Maunder, R. & Hunter, J. (2001). Attachment and psychosomatic medicine: Developmental contributions to stress and disease. *Psychosomatic Medicine, 63*(4), 556-567. doi: 0033-3174/01/6304-0556

- Meichenbaum, D. (n.d.). *Self-care for trauma psychotherapists and caregivers: Individual, social, and organizational interventions*. Retrieved from http://www.melissainstitute.org/documents/Meichenbaum_SelfCare_11thconf.pdf
- Miller, K., Stiff, J., & Ellis, B. (1988). Communication and empathy as precursors to burnout among human service workers. *Communication Monographs*, 55(3), 250-265. doi: 10.1080/03637758809376171
- National Child Traumatic Stress Network. (n.d.). Types of traumatic stress. Retrieved from <http://www.nctsn.org/trauma-types>
- Norton, B., Ferriegel, M., & Norton, C. (2011). Somatic expressions of trauma in experiential play therapy. *International Journal of Play Therapy*, 20(3), 138-152. doi: 10.1037/a0024349
- Pearlman, L. & Courtois, C. (2005). Clinical applications of attachment framework: Relational treatment of complex trauma. *Journal of Traumatic Stress*, 18(5), 449-459. doi: 0.1002/jts.20052
- Pearson, J. & Kordich Hall, D. (2006). *Reaching in...reaching out resiliency guidebook: "Bounce back thinking skills for children and adults*. Toronto, ON: First Folio Resource Group.
- Perry, B., Pollard, R., Blakely, 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

- Perry, B. (2002). *Helping traumatized children: A brief overview for caregivers*. Houston, TX: ChildTrauma Academy.
- Pines, A. M., Aronson, E., & Kafry, D. (1981). *Burnout: From tedium to personal growth*. New York, NY: Free Press.
- Purnell, C. (2004). Attachment theory and attachment-based therapy. In M. Green, M. Scholes (Eds.), *Attachment and human survival* (119-136). London England: Karnac Books.
- Rogers, C. (1959). A theory of therapy. Personality and interpersonal relationships as developed in the client centered framework. In S. Koch (Ed.), *Psychology: A study of science, Vol. 3, Formulations of the Person and Social Context* (184-256). New York, NY: McGraw Hill.
- Rolfe, S. (2004). *Rethinking attachment for early childhood practice: Promoting security, autonomy, and resilience in young children*. Australia: Allen & Unwin.
- Rothchild, B. (2000). *The body remembers: The psychophysiology of trauma and trauma treatment*. New York, NY: Norton.
- Scheeringa, M., & Zeanah, C. (2001). A relational perspective on PTSD in early childhood. *Journal of Traumatic Stress, 14*(4), 799-815. doi: 0894-9867/01/1000-0799\$19.50/1
- Shonkoff, J. & Phillips, D. (ed.) (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.
- Siegel, D. (1999). *The developing mind: How relationships and the brain interact to shape who we are*. New York, NY: The Guilford Press.
- Siegel, D. & Hartzell, M. (2004). *Parenting from the inside out*. New York, NY: Penguin Group.

- Sroufe, A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment and Human Development*, 7(4), 349-367. doi: 10.1080/14616730500365928
- Stephens, K. (2010). Fostering resilience in children exposed to domestic violence: Practical strategies EC staff can put into action. *Exchange* 195, 68-72. Retrieved from http://childcareexchange.com/catalog/product_info.php?products_id=4319500
- Streek-Fischer, A., & van der Kolk, B. (2000). Down will come baby, cradle and all: Diagnostic and therapeutic implications of chronic trauma on child development. *Australian and New Zealand Journal of Psychiatry*, 34(6), 903-918. Retrieved from <http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291440-1614>
- Stroud, M. (2002). A few thoughts about the mind, the brain, and a child with early deprivation. *Journal of Analytical Psychology*, 47(3), 421-435. doi: 0021-8774/2002/4703/421
- Teicher, M. H., Andersen, S. L., Polcari, A., Anderson, C. M., Navalta, C., & Kim, D. (2003). Neurobiological consequences of early stress and childhood maltreatment. *Neuroscience and Biobehavioral Reviews*, 27(1-2), 33-44. doi: 10.1016/S0149-7634(03)00007-1
- Terr, L. (1991). Childhood traumas: An outline and overview. *American Journal Psychiatry*, 148(1), 10-20. Retrieved from <http://ajp.psychiatryonline.org/issue.aspx?journalid=13&issueid=3546>
- Terr, L. (1988). What happens to early memories of trauma? A study of twenty children under age five at the time of documented traumatic events. *Journal of the American Academy of Child & Adolescent Psychiatry*, 27(1), 96-104 doi: 10.1097/00004583-198801000-00015

- Trocme, N., Fallon, B., MacLaurin, B., Felstiner, C., Black, T., Tonmyr, L., ... Cloutier, R. (2005). *Canadian incidence study of reported child abuse and neglect – 2003: Major findings*. Minister of Public Works and Government Services Canada. Retrieved from http://www.phac-aspc.gc.ca/cm-vee/csca-ecve/pdf/childabuse_final_e.pdf
- van der Kolk, B. (1994). The body keeps score: Memory and evolving psychobiology of post traumatic stress. *Harvard Review of Psychiatry*, 1(5), 253-265. Retrieved from <http://www.trauma-pages.com/a/vanderk4.php>
- van der Kolk, B. (2003). The neurobiology of childhood trauma and abuse. *Child Adolescent Psychiatric Clinics of North America*, 12(2), 293-317. doi: 10.1016/S1056-4993(03)00003-8
- van der Kolk, B. (2005). Developmental trauma disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals*, 35(5), 401-408. Retrieved from http://www.traumacenter.org/products/Developmental_Trauma_Disorder.pdf
- Werner, E. E. (1992). *Overcoming the odds: High risk children from birth to adulthood*. New York, NY: Cornell University Press.
- Werner, E. E., & Smith, R. S. (1989). *Vulnerable but invincible: A longitudinal study of resilient children and youth*. New York, NY: Adams, Bannister, Cox.
- Williams, W. (2006). Complex trauma: Approaches to theory and treatment. *Journal of Loss and Trauma*, 11(4), 321-335. doi10.1080/15325020600663078
- Wlodkowski, R., & Ginsberg, M. (1995). A framework for culturally responsive teaching. *Educational Leadership*, 53(1), 17-21. Retrieved from <http://www.ebscohost.com/public/canadian-reference-centre>