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Brains, beads and boulders: Trauma-informed sensory interventions for adolescents

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Brains, Beads and Boulders:
Trauma-Informed Sensory Interventions for Adolescents
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A research project submitted to the Graduate Faculty of

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Abstract

For beginning counselors there was minimal training in academic programs to address client experiences with trauma and the value of sensory interventions in treatment. The purpose of this literature review and compilation of adventure-based and creative arts interventions was to provide an understanding of trauma for adolescents from a neurobiological perspective, to provide assessment tools, a selection of sensory-based interventions for use within counseling sessions, and resources relevant to the beginning counselor. Steele and Kuban (2011) describe the experience of trauma as feeling completely unsafe and powerless. Interventions, then, should focus on repairing a sense of safety and power. To access the part of the brain affected by trauma, where talk therapy does not reach, sensory interventions within a place of safety provide an opportunity for individuals who have experienced trauma to modify their experience of themselves as survivors (Steele & Kuban, 2011).

A literature review that used comprehensive databases of peer-reviewed journals and search terms such as “trauma”, “sensory memories”, “sensory interventions”, “adventure-based counseling”, “play therapy”, “creative”, and “counseling” were used. In addition, resources were gleaned from organizations such as The National Institute for Trauma and Loss in Children and reputable authors within the fields of counseling, psychology, and neuroscience. Literature regarding the neurobiological effects of trauma was abundant. Linking neurobiology with sensory interventions was ample, though it was an area where continued research would be supported. Counselors will benefit from implementation of sensory interventions in their work with adolescents who have experienced trauma. Practical resources for counselors were included in order to maximize the potential for transfer from learning into practice.

Brains, Beads and Boulders:

Trauma-Informed Sensory Interventions for Adolescents

And in the streets the children screamed
The lovers cried and the poets dreamed
But not a word was spoken
The church bells all were broken
The day the music died
(McClean, 1992)

Introduction

It is my hope that through this literature review and selection of interventions and resources, counselors can promote the healing of individuals who might have traditionally been considered victims of trauma, in their journey to become survivors. The Chinese symbol for crisis includes the words danger and opportunity (Echterling, Presbury, McKee, 2005). While crisis might refer to any pivotal moment in one's life, whether that is a big decision or a life-changing event, it is something that everyone experiences (Echterling, Presbury, McKee, 2005). Trauma, on the other hand, "refers to a serious physical or psychological injury that has resulted from a threatening, terrifying, or horrifying experience. Not everyone in crisis is dealing with trauma" (Echterling, Presbury, McKee, 2005, p. 7). This paper will explore a greater understanding of trauma, particularly for adolescents and ways for counselors to incorporate that knowledge into practice.

This literature review and selection of sensory interventions first provides an in depth understanding of trauma, focusing on definitions, the neurobiological aspects of trauma, sensory memories and the experience of trauma distinctive to adolescents. Second, it reviews assessment models and measures, both formal and informal sensory measures. Third, this review will provide a selection of effective sensory interventions for use within counseling sessions. This section does not serve as a comprehensive index of sensory interventions, rather as a resource for beginning counselors to expand their understanding of

experiences with trauma and the value of sensory interventions beyond training and moving toward practice. Special considerations and challenges for counselors are presented for the practical interventions in order to enable a more successful transfer from knowledge to practice. This guide for counselors will present important topics such as maintaining a client centered approach (Rogers, 1957), intervention selection, and considerations within trauma-informed practices. Finally, the appendix provides a useful resource of the sensory interventions presented as well as a listing of resources relevant to the beginning counselor working with individuals who have experienced trauma.

Trauma

One-third of adults have experienced “significant adverse childhood events- often traumatic in nature” (Perry, as cited in Malchiodi, 2008, p. ix). Bruce D. Perry continues, “And we are now more aware that these adverse and traumatic experiences change us in many ways; after trauma our bodies and minds, our hearts and souls are seared and then twisted and modified to help us survive.” (as cited in Malchiodi, 2008, p.ix). The following trauma specific sections explore a working definition of trauma, an interpersonal neurobiological perspective as it relates to sensory memories and an understanding of trauma specific to adolescents.

Definition of Trauma

The following definition of trauma will first explore trauma as an experience, followed by possible symptoms and common diagnoses. Steele and Kuban (2011) describe the experience of trauma as feeling completely unsafe and powerless. Trauma might look like an individual’s experience following Hurricane Katrina’s effects on New Orleans, or a house fire or car accident, or it may be a chronic abusive relationship. Trauma may be of a physical, emotional or sexual nature. Wheeler (2007) discusses Shapiro’s (2001) expansion of the definition of trauma, from the “Big T Traumas” (life threatening events, abuse, natural disasters, etc) to include “small t traumas” that most people experience and at a greater frequency, such as family issues, humiliation, bullying, emotional neglect, and loneliness. Particularly when these smaller traumas occur chronically they can also have a significant impact on the developing child’s brain (Wheeler, 2007, p. 133). Sarid and Huss (2010) suggest “A traumatic event can be described as an event that involves actual or threatened death, serious injury, or a threat to physical integrity of self or other, to which the individual’s response involves intense fear, helplessness, or horror” (p. 8). As we consider

what events might be considered traumatic it is also important to note the two forms of traumatic events: acute trauma (single event) and chronic trauma (multiple, ongoing events). “In either type of traumatic event, children may encounter physical and/or emotional disruption and suffer bodily trauma and/or psychological effects” (Malchiodi, 2008, p.4).

While any number of events could be considered traumatic, everyone has different responses to the trauma that they experience. Two adolescents that experience the same traumatic accident could respond quite differently. One might respond by asking, “Is my brother going to die?” while the other might say, “Does this mean we’re not going to get to the soccer game tonight?” In considering trauma’s effect on individuals, Wheeler (2007) writes: “Trauma disconnects the person physiologically, emotionally, spiritually, cognitively, interpersonally, and socially”. The Trauma Assessment Pathways online training from the Chadwick Center for Children and Families (2008) suggests a number of symptoms. Affective symptoms include fear, sadness, anger, anxiety/irritability, and affective dysregulation. Behavioral symptoms include: violence/aggression, self-injury, avoidance, sexualized behaviors, substance abuse and sleep problems. Cognitive symptoms include: irrational beliefs, distrust, concerns with attention regulation and executive functioning, distorted self-image, problems completing tasks, difficulty planning, and learning difficulties. Other symptoms include: posttraumatic stress symptoms, (re-experiencing, avoidance, hyper-arousal), dissociation (daydreaming, spacing out, emotional numbness, forgetfulness), problems with attachment, and physical problems (problems with balance, sensitive to physical contact). Just as individuals respond with different symptoms to trauma, many individuals experience trauma with resilience as is noted in post-traumatic growth. For others traumatic experiences may result in Post Traumatic Stress Disorder, or Acute Stress Disorder. Due to the complexity of symptoms, some may be misdiagnosed as a number of

other disorders such as disruptive behavior disorders (oppositional defiant disorder, attention-deficit), depression or anxiety (Steele & Kuban, 2011, Lipschitz, Morgan, Southwick, 2002).

According to the DSM-IV-TR developed by the American Psychiatric Association (2000), Acute Stress Disorder (ASD) is a diagnosis made within the first four weeks post-trauma. The person would have been exposed to a traumatic event and experience a number of dissociative symptoms (for example: numbing, detachment or absence of emotional responsiveness, reduction of awareness, derealization, depersonalization, or amnesia), reexperience the event, avoid trauma specific arousal, experience anxiety or heightened arousal. The disturbance would be clinically significant, for at least 2 days and not be caused by some other condition. The symptoms for PTSD are similar to ASD, though the focus is more on specific reexperiencing of the trauma, avoidance of stimuli and increased arousal. The main difference in PTSD is the timeframe, as individuals experience these symptoms for more than one month, and it may begin directly following the traumatic event or significantly later (DSM-IV-TR; American Psychiatric Association, 2000). Wheeler (2007) writes, “of those exposed to trauma, the prevalence rate for posttraumatic stress disorder (PTSD) is approximately 25% overall in the United States (Foo, Keane, & Friedman, 2000).”

What might be suggested here is that a greater majority of individuals do not experience PTSD following a traumatic or horrifying experience. Echterling, Presbury and McKee (2005) make a strong case for resilience among trauma survivors as one study found that while 69% of a sample of Americans had experienced a traumatic event (Echterling, et. al, 2005; Norris, 1992), and another study shows that only about 12% had experienced PTSD (Echterling, et. al, 2005; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

Another study suggested that of those who experience a traumatic event 76% do not develop PTSD (Echterling, et. al, 2005; Breslau, Davis, Andreski, & Peterson, 1991), similar to Wheeler's results. These studies suggest that in spite of traumatic events, and emotional distress most people respond fairly quickly to an emotional state similar to before the event, rather than develop a clinical disorder (Bowman, 1997; Echterling, et. al, 2005). Post-traumatic growth is a term proposed by Tedeschi, Park and Calhoun (1998) that describes a person's ability to "flourish under stress" (Echterling, et al, 2005, p. 12). It is important to recognize this innate ability that people have to thrive, to survive, even in spite of some of the most terrible environments or experiences. Recognizing that healing, that resilience, is possible is primary to the work of psychotherapy.

It is this post traumatic growth, an adaptive response to a traumatic event that is sought in psychotherapy with individuals who have experienced trauma and whose symptoms in the moment were helpful but no longer promote healthy functioning. Talwar (2007) writes about how most people have experienced adverse life events and the impact of the event is dependent on each person's ability to cope and self regulate in the moment. Greenwald (2005) suggests that individuals cope with traumatic experiences either in an adaptive way, or a non-adaptive way. The adaptive method suggests that the person finds a way to process the stressful event, within a supportive environment, and to move through normal stages of grief or loss. In the non-adaptive method, "the event is pushed behind a wall in order to seek emotional and affective relief from the distress it causes" (Talwar, 2007, p. 23). Talwar (2007) goes on to suggest that these walled off memories can maintain their affective power even across the years. With a greater understanding of traumatic events, possible symptoms and common diagnoses, the next section will explore trauma's effects from an interpersonal neurobiological perspective and by making meaning out of memories.

Interpersonal Neurobiology and Sensory Memories

Dr. Daniel Siegel (2003) presents a hand model of the brain that is helpful in a beginning understanding of the neurobiological effects that trauma can have. Fold your thumb into your hand, and close your fingers over the thumb, making a fist. The wrist to the center of the palm is representative of the brain stem. This is the area of the brain that “takes in information from perceptions and from the body, and it regulates states of wakefulness and sleep” (Siegel, 2003, p. 20). This is the area where the body first connects with the brain.

Siegel (2003) describes the limbic system of the brain in three parts: the hippocampus, the amygdala and the anterior cingulate. This is the part of the hand you see when you lift the fingers and look at the thumb. The hippocampus (the base of the thumb) is involved in the processing of explicit memory. The amygdala (the 2nd to last segment of the thumb) is important in processing emotions, particularly fear, sadness and anger, and is important in evaluating incoming stimuli (as well as a number of other areas of the brain). The anterior cingulate (represented by the final knuckle to the fingernail of the thumb), is helpful in coordinating what we do with thoughts and bodies. The hypothalamus, also included in this area, is necessary for hormonal secretion which enables coordination of neural processes throughout the body and brain (Siegel, 2003, p. 20).

When you fold the fingers back over the thumb, the top area of the brain is the cerebral cortex which houses the lobes that maintain specific functions such as visual processing, and reasoning. The two outside fingers from the second knuckles to the fingernails represent the prefrontal cortex which is like the working memory of the brain (Siegel, 2003, p. 21). Siegel describes the orbitofrontal cortex (also known as the ventromedial prefrontal cortex) in greater detail. This area represented by the two middle

fingers from the second to last knuckle to the fingernail, is especially unique as it is only one synapse from each of the other regions of the brain. The orbitofrontal cortex' location speaks of its role as a key neural integrating region (Siegel, 2003, p. 21). This area is also involved in the regulation of emotion, in interpersonal communication (eye contact), in social cognition, in response flexibility, in self-awareness, autobiographical memory and in morality (Siegel, 2003, p.21-22). "Neural integration may be a key process that is impaired in trauma; hence, such integration may be fundamental to mental health and the healing of trauma." (Siegel, 2003, p. 22).

With this visual understanding of the brain, the following will explore the brain through an understanding of memory. Siegel (2003) describes the concept of memory as it relates to neural integration:

Complex mental processes thus depend upon widely distributed regions of the brain to be linked together into a functional whole. Memory is one such process: The association of neuronal firing from distributed areas of the brain is the essence of memory. We learn by how our neurons create functional linkages in the moment of initial learning that then influence the likelihood of these neurons firing together in the future....Memory is based on this process of integration. Learning requires that we create linkages to alter the nature of our future neuronal firing patterns. (p. 5)

Rothschild (2000) describes the process of the memory system as the functioning of two parts, "explicit" and "implicit" memory. Explicit memory refers to "facts, concepts and ideas" (Talwar, 2007, p. 24). Explicit memory engages the hippocampus (Siegel's base of the thumb) which creates a cognitive map that aids people in "putting our memories into their proper perspective and place in our life's time line" (Rothschild, 2000 p. 12), and operates in a client's descriptions, opinions and narrative. The implicit memory refers to that which is

learned, in our actions and behaviors, what we do without thinking. For instance, things like “bicycle riding, doodling, drawing or writing...involve implicit memories” (Talwar, 2007, p.24). Even during the more implicit memory activities, such as doodling, the explicit memory is also at work as it maps the time, place or other facts regarding the experience (Talwar, 2007).

In those who have experienced trauma, however, traumatic memories remain within the implicit memory, rather than being linked to the explicit memory. Therefore, they remain in the present within the implicit memory and are unable to become cognitively mapped in the past (Talwar, 2007, p. 24). Talwar (2007) describes neuroimaging studies of individuals who have experienced trauma and the dissociation that occurs when asked to recall their traumatic experience. While the left frontal cortex (the Broca’s area, responsible for speech) is inactive, the area around the amygdala (responsible for emotional and automatic arousal) becomes very active (Bremner et al., 1992; Rauch et al., 1994; Talwar, 2007). From this understanding, “the imprint of trauma does not reside in the verbal, analytical regions of the brain. Instead, it affects the limbic system and non-verbal region of the brain, which are only marginally employed in thinking and cognition” (Talwar, 2007, p. 24). Van der Kolk (2003) states that “when people relive their traumatic experiences, the frontal lobes become impaired and, as a result, they have trouble thinking and speaking. They are no longer capable of communicating to either themselves or to others precisely what’s going on” (Talwar, 2007, p. 24; Wylie, 2004, p. 39). Due to the effects of trauma on communication by language, Talwar (2007) challenges therapists to “move beyond words and language to integrate the cognitive, emotional and affective memory” (p. 25) in order to move toward “positive adaptive functioning” (p. 26).

Sarid and Huss (2010) also discuss the difference between ordinary memories and traumatic memories. They describe ordinary memories as those which are often clear and conscious, while traumatic memories are more fragile. When traumatic memories are recalled and reconsolidated they can disrupt normal functioning. “McCleery and Harvey (2004) suggested that the physiological over-excitation of the senses enhance the reprocessing of traumatic memories. Memory distortions caused by trauma can prevent a sense of control and lack of coherent narrative of the traumatic event (McNally, 2003, 2006; van der Kolk et al., 2001)” (Sarid & Huss, 2010, p. 9).

Siegel (2003) suggests that unresolved posttraumatic states are represented by a stressed system that fluctuates between rigidity (monotony) and chaos (cacophony), and is unable to function at its best which he describes as moving toward complexity. As normal memory function occurs it continues to move toward a sense of organization out of chaos. “The mind constantly re-assembles old impressions and attaches them to new information” (van der Kolk, 2002, p. 2). Van der Kolk (2002) continues by adding that researchers “deny that the mind is capable of precisely reproducing the imprints of prior experience” (p. 2). Those who have been diagnosed with PTSD on the other hand, report exact memories, emotions, and sensations connected to the trauma (Talwar 2007). Those with PTSD symptoms often involuntarily experience this lack of control and reliving of the trauma, even through their own awareness of the inconsistent nature of their reactions. One challenge within the counseling process is regulating the sensory impact related to the trauma (Talwar, 2007).

Wheeler (2007) describes Shapiro’s (2001) Adaptive Information Processing Model (AIP). The model suggests that memory is stored in the neural networks and then organized around events and associated with certain sensations and emotions. When these memories

are integrated in the ideal fashion, there is healthy functioning. When trauma occurs, the event is not able to be properly integrated and processed, and instead it is stored just as it was when the event happened and is not linked adaptively into the neural networks. Later something may trigger the previous traumatic event, which triggers the response to the trauma; a response that at the time was adaptive, however in the present is impairing healthy functioning (Shapiro, 2001; Wheeler, 2007). Siegel (2003) describes the brain's response when stress occurs, with an excess in secretion of cortisol, which can lead to neuronal cell death. Particular vulnerability exists in the areas of the neural circuitry in which growth is occurring and where there are increased cortisol receptors (hippocampus).

Research is abundant in relating the activities of the brain and of memory to traumatic experiences. What becomes apparent is that traumatic experiences affect the brain in such a way that integration of the traumatic memories into the neural networks may be inhibited, that language processes can be disturbed, and that sensory memories can be vivid. Being informed about trauma's effects on the brain suggests further adaptations to psychotherapy in order to lead clients toward reintegration of the neural pathways specifically related to the traumatic experience in ways that may move beyond the use of only language as communication.

Adolescent Trauma

Trauma experiences in adolescence may come in the form of physical, emotional or sexual trauma, and it may be acute or chronic. Children and adolescents routinely experience traumatic events. The National Survey of Adolescents (Kilpatrick, et. al, 2003) notes that nearly 40% of adolescents have been witness to violence, 17% have been physically assaulted and 8% have been sexually assaulted. These rates of exposure increase among high-risk groups (NSA, 2003; NCTSN, 2008). Of those that have experienced traumatic events, “Numerous surveys have shown that children and adolescents who have experienced trauma are at particularly high risk of developing PTSD: more than 75% of children who experience a school shooting, and approximately 90% of children who are sexually abused develop PTSD” (The National Child Traumatic Stress Network, 2008). For adolescents, these rates suggest greater prevalence rates than for adults.

Underwood, Stewart and Castellanos (2007) write particularly of female survivors of sexual abuse and the diagnosis and symptoms that are increased following incidents such as low self-esteem, guilt, depression, borderline personality, PTSD and dissociative identity (p. 403). In considering the diagnosis of PTSD in children, there is still discussion regarding the differences in children and adults. In particular, adolescents may present with symptoms such as hyperarousal, reexperiencing, and avoidance (Malchiodi, 2008, p. 5) which may vary from the symptoms of adults. Trauma symptoms exhibited through behavior in adolescents may lead to living for the moment, risky behaviors, making poor choices and academic underachievement (NCTSN, 2008). In addition, adolescents who have been exposed to traumatic events are expending enormous amounts of energy: mental and emotional in order to find ways to respond and cope with the experience (NCTSN, 2008). This energy expense can interrupt an adolescent’s capacity for normal development (NCTSN, 2008).

Underwood, et al., (2007) discuss female adolescent development as a time when there is a focus on “socialization, self consciousness, pubertal changes, social peer competence, identity, self-concept, and sexuality” (p. 404). Traumatic experiences that happen during adolescence, “increases likelihood of developing emotional and behavioral disturbances” (Underwood, et. al, 2007, p. 404). Combining the neurobiological and sensory memory understanding with the growth and developmental stages prior to and into adolescence Haen (2008) suggests that the result can be manifested in bodily discomfort and a keen awareness of bodily sensations. Siegel (2003) also suggests that stress during this time of growth in the mind can have the greatest impact and that, “Trauma during the early years may have lasting effects on deep brain structures responsible for such processes as the response to stress, the integration of information, and the encoding of memory (De Bellis, 1999b; Teicher, 2002)” (p. 9). Siegel (2003) continues by suggesting that fear, anger and shame can emerge as lasting and characteristic responses. Traumatic experience particularly in childhood and adolescence, the time when the most growth and development is taking place within the mind can introduce increased trauma symptoms. This is not to say that every child or adolescent who experiences a crisis will present with the terror that is attributed to trauma, rather many are resilient.

Malchiodi (2008) suggests that children who have experienced multiple, severe trauma events may develop attachment problems and normal development may be hindered. Bowlby’s (1969) attachment theory has been intertwined with neuroscience which shows that the child’s brain structure, particularly the prefrontal cortex (involved in reasoning, problem solving, flexibility, etc.) can be built by interactions with emotionally significant caregivers. Siegel (1999) explains attachment as “an inborn system in the brain that evolves in ways that influence and organize motivational, emotional, and memory processes with

respect to significant caregiving figures” (p. 67). When an adolescent experiences a crisis, their means of adaptation to that crisis with either a healthy response or a traumatic response may be related to their previous ability to develop healthy attachments with a significant adult.

Assessment in Trauma-Informed Practices

A comprehensive trauma assessment may be the best approach to implementing a unique treatment plan for traumatized adolescents. As few counselors are trained in the implementation and evaluation of many assessment measures (Steele & Malchiodi, 2012, p.43) this section is geared toward providing a basic knowledge of various models of trauma-informed assessment practices for adolescents, as well as a few assessment measures both formal and informal sensory based assessments that could be useful in trauma-informed practice. The models and measures presented are not meant to be recommendations or endorsements, rather a selection of familiar assessments often used in trauma-informed care.

Steele and Malchiodi (2012, p. 23-26) explore the importance of trauma-informed assessments. They describe a case in which a 12 year old girl who had experienced numerous sexual abuse events, came to the clinic and was described as “oppositional and would not listen”, assaultive and disruptive. She came with many diagnoses as well as medications. Due to funding concerns, she had received only a psychiatric assessment and never received a cognitive assessment. After completion of the cognitive assessment it showed that she was functioning at a 6 year old level, with short-term memory and difficulty understanding verbal communications. She was not oppositional, instead she was “responding with adaptive coping to a hostile environment that activated her primal survival responses” (Steele & Malchiodi, 2012, p. 25). In addition, it was learned that her visual memory was quite strong. From this information, her treatment plan and environment were modified and her strengths were used to promote more effective communication. Steele and Malchiodi encourage individualized plans drawn directly from assessments that look at deficits and strengths, rather than fitting the adolescent to an established program. It is important to note that traumatized children and adolescents may have unique and

challenging responses to the use of assessment tools therefore clinicians should be aware and responsive to clients in order to address their concerns, and enhance the therapeutic alliance while also attending to the assessment tools (Steele & Malchiodi, 2012, p. 45).

Trauma Assessment Models

The Trauma Assessment Pathway (TAP) (Taylor, Gilbert, Ryan & Mann, 2005) model developed by Chadwick Center for Children and Families (2008) provides a sequence that includes assessment, triage, and treatment in working with children who have experienced trauma (Steele & Malchiodi, 2012). The TAP model can be used by any clinician working with traumatized children, and treatment plans are specialized for each child, 2-18, and their unique situation. The model walks through the process of initially screening the individual (or referring out), through assessment procedures, forming a “Unique Client Picture”, followed by identifying and implementing a unique treatment. (Chadwick Center for Children and Families, Rady Children’s Hospital, 2008; Steele & Malchiodi, 2012).

The Child Trauma Assessment Center (CTAC) at Western Michigan University implements a comprehensive transdisciplinary trauma assessment model that looks specifically at five different areas: “physical/medical, developmental, social/family, emotional/behavioral, and trauma” (Steele & Malchiodi, 2012, p. 32). An initial caregiver ethnographic interview is completed, followed by a transdisciplinary team meeting that takes potential challenges, areas of concern and which assessment tools should be used into consideration (Steele & Malchiodi, 2012, p. 35). This meeting is followed by approximately 4 hours of assessment completed by two clinicians of differing disciplines, while the others observe through one-way mirrors. The team gets back together to review the assessment strategies, make adjustments and discuss further approaches which incorporate age-

appropriate techniques (play, activity, drawings, interview, etc). At the following transdisciplinary meeting, preliminary assessment reports are presented, implementing a “trauma-informed, brain-based framework” (Steele & Malchiodi, 2012, p. 35). Gathering such extensive assessment information has proven useful for informing treatment recommendations. (Steele & Malchiodi, 2012, p. 36). This model draws upon the strengths of using a systems approach in working with individuals who have experienced trauma.

Trauma Assessment Measures

The following is a selection of brief assessment measures that are often used, though it is important to recognize that as in any assessment, proper interpretation of the materials is important. Also, in using a less comprehensive approach, the results and interpretations may not accurately reflect the best treatment practice for each unique adolescent (Steele & Malchiodi, 2012, p. 43).

Trauma symptom checklist for children (TSCC). The TSCC (Briere, 1996) is for ages 8-16. It is a self-report of posttraumatic and related symptoms within 5 areas: “anxiety, depression, anger, posttraumatic stress, and dissociation” (Steele & Malchiodi, 2012, p. 43). The TSCC assesses trauma symptoms and associated emotional functioning.

Youth self-report (YSR). The Youth Self-Report (YSR) (Achenbach & Rescoria, 2001) is for ages 11-18. It is also a self-report assessing behavior in two areas: internalizing and externalizing. Each of these broader areas consists of eight symptom scales: “anxious/depressed, withdrawal/depressed, somatic complaints, social problems, thought problems, attention problems, rule-breaking behavior, and aggressive behavior” (Steele & Malchiodi, 2012, p. 43).

University of California PTSD Reaction Index for DSM-IV (UCLA-PTSD-RI). The UCLA-PTSD-RI (Steinberg et al., 2004) is a 48-item semi structured interview that

explores exposure to 26 various types of traumatic events as well as 19 symptoms based on the DSM-IV diagnostic criteria. (Steele & Malchiodi, 2012, p. 44).

Child and adolescent questionnaire (CAQ). The CAQ (Steele & Raider, 2001) is a modification of the UCLA-PTSD Reaction Index that uses three scales to evaluate re-experiencing of a traumatic event, avoidance associated with the event, and symptoms of increased arousal (Steele & Malchiodi, 2012, p. 44).

Child and adolescent strengths assessment (CASA). CASA “is a rater-report measure designed to assess child/adolescent status with regard to 30 potential strengths, for use in mental health service planning and delivery. Strengths are assessed on 6 dimensions: 1) family, 2) school/vocational, 3) psychological, 4) peer, 5) moral/spiritual, and 6) extracurricular” (Lyons, 2005).

Behavioral Emotional Rating Scale (BERS-2). The BERS-2 (Epstein et al., 2004) is used to evaluate strengths, based on 5 areas: interpersonal strengths, intrapersonal strengths, family involvement, school functioning, and affective strength (Steele & Malchiodi, 2012, p. 44-45).

Both the CASA and the BERS-2 aim to identify the strengths of an individual in order to inform treatment and interventions. Other assessments are often used in collaboration with the previous assessments including achievement, intelligence and cognitive assessments in order to inform overall functioning.

Sensory-Based Assessment Measures

Using assessments with adolescents who have experienced trauma may present various challenges. For instance, it may be difficult to explain events verbally, as it relates to the functioning of the brain following traumatic experiences. In such cases, sensory-based assessments may be a valuable means of evaluating children and adolescents. Steele and

Malchiodi (2012) describe trauma-informed art and play assessments which have goals of evaluating: overall functioning, developmental level, perceptions of caretaker support, internal support, identifying the impact of traumatic events and observation of the child's "enjoyment, curiosity, spontaneity and creativity" (p. 51). In using art as assessment in particular, it is important to note the developmental stage of the individual as that relates to art and drawing (Steele & Malchiodi, 2012). The following are a number of trauma-informed, sensory-based assessment approaches.

Extended Developmental Assessment (EDA). EDA (Gil, 2003b, 2006; Gil & Green, n.d.) is an approach that uses 10-12 sessions and has a developmental approach incorporating a child's means of communication, that is play. Following an initial intake meeting with the parent/caretakers, in the early phase, the goal is to develop a feeling of safety and comfort using non-directed play and expression by art. The middle phase is used to begin to explore and discuss sensitive events, issues and trauma experiences through activities such as family play genograms, sand tray work, self-portraits, family drawings, and expression of feelings through art (Steele & Malchiodi, 2012). The goal of these sessions is to determine developmental functioning, to identify symptoms or problems, to determine the impact of the trauma, to identify coping and strengths, to clarify perceptions of supports and to facilitate appropriate caretaker support of children (Steele & Malchiodi, 2012). This approach draws from a non-directive and client-centered then incorporates more directive tasks and activities unlike many assessment tools that are pathology focused.

Family play genogram. The Family Play Genogram (Gil, as cited in Steele & Malchiodi, 2012) is based on the family genogram and sand tray therapies. This activity gathers information regarding perceptions of family and social networks. Start with a large piece of white paper. A genogram (McGoldrick, Gerson, & Petry, 2008) is drawn onto the

paper (can be drawn out for younger children, adolescents may want to draw their own), including as many individuals of significance as possible. With miniatures and modeling clay (to create figures), have the client choose or create miniatures that best represent their thoughts and feelings about the individuals on the genogram. Following the activity, conversation is encouraged. It is important to refrain from making judgments or guesses, instead encouraging conversation such as: “Tell me about this (figure)..., If this (figure) could talk, what would it say?” (Steele & Malchiodi, 2012, p. 53-57).

The Silver Drawing Test (SDT). The SDT (Silver, 2007) is an art-based assessment instrument for children 6 years and older that helps evaluate cognitive and artistic development, problem-solving skills, emotional challenges and their capacity for imagination. Silver’s test uses 3 initial tasks, the first is to draw liquid sequentially diminishing from a series of glasses, the second is drawing water in a tilted bottle and the third is to draw a house on a steep cliff. In addition, the individual is asked to “draw a story” incorporating two drawings from a set of images in their own style of drawing, then writes a story about the drawing and titles the art. While there is a scoring system for depression and aggression, the “draw a story” task could also be used as an informal assessment by keeping in mind: developmental stage of the individual and of the drawing, ability to combine two images into one story and to subsequently tell a story, considering underlying themes of the story and the drawing, and manner of relating to the clinician (Steele & Malchiodi, 2012).

Human figure drawing (HFD). Human figure drawing is a task in which the child is asked to use a pencil to draw a whole person on a piece of white paper. Malchiodi (2009) found that the HFDs of school-age children with PTSD were significantly different from those of children without PTSD, based on developmental factors. Research collected from children 6-12 years of age showed that there was high inter-rater reliability and a strong

positive relationship between scores on the drawing test and the UCLA PTSD RI (Steele & Malchiodi, 2012).

Body Scan or “Show Me the Color of Your Feelings”. This is an informal assessment that evokes the sensory experience of clients, where communication by language may be lacking. It begins with an outline of a gingerbread figure and the individual uses colors, shapes, or drawings to show where hurt, worry, fear or other affective themes are felt. Helping clinicians understand where and how the trauma is experienced on a sensory level, they can begin to implement interventions that will help to minimize these reactions (Steele & Malchiodi, 2012).

Having a basic understanding of these models and assessments, both formal and informal should be useful information for counselors. Viewing clients as unique and as part of a system is especially valuable in trauma-informed care. In addition, using trauma-informed assessments to enlighten the treatment process and aid in conceptualization can be useful in order to work together to move a client in the process of change from victim to survivor. Assessment should be a process that directly leads toward the most effective interventions in trauma informed care. The following section explores interventions as they relate to a neurobiological and sensory-based understanding of trauma.

Trauma-Informed Sensory Interventions

“Retell the story.
Hold each other.
Massage, dance, sing.
Create images of the battle, hunt, and death.
Fill literature, sculpture, and drama with retellings.
Reconnect to loved ones and to community.
Celebrate, eat, and share.”
Bruce D. Perry (as cited in Malchiodi, 2008, p.x)

With a basic understanding of trauma, neurobiological research, and assessment, additional research regarding interventions show that this valuable information should also move to influence psychotherapeutic practice. Bruce D. Perry writes in the forward to Malchiodi’s (2008) *Creative Interventions with Traumatized Children* of the altering that happens by trauma in the brainstem and midbrain systems. Perry suggests that repetitive neural activities from tactile, rhythmic, visual or motor stimulation that are characteristic of somatosensory experiences are integral in modifying these brain systems (Malchiodi, 2008, forward). The repetitive nature of using senses in adventure-based activities and in the creative arts has a way of promoting healing through re-integration of the memories and the neural networks within the brain.

While sensory interventions are not the only effective practices in working with trauma survivors, this practice is informed by the neurobiological research. Malchiodi (2008) describes the growing knowledge that trauma is an autonomic, physiological and neurological response that generates a secondary psychological response (Rothschild, 2000). With this understanding, therapists can acknowledge that the symptoms are the body’s way of reacting to traumatic events. “There is an increasing consensus that intervention must not only utilize evidence-based practices in psychotherapy with children, but must also employ techniques that focus on the sensory impact of trauma” (Malchiodi, 2008, p.4). Perhaps

with additional research, sensory interventions will continue to gain additional recognition as evidence-based practice in trauma-informed care.

Steele (2009), director of The National Institute for Trauma and Loss in Children (TLC) describes the use of Structured Sensory Interventions for Traumatized Children, Adolescents, and Parents (SITCAP) and the statistical significance of drawing as an intervention, which has recently been recognized as an evidence-based program (The National Institute for Trauma and Loss in Children, 2011). Steele (2009) notes the importance of recognizing that trauma is not only a cognitive experience but primarily an implicit experience. Therefore, interventions should focus on sensory-implicit activities within the directed and controlled context of the individual's relevant themes of their trauma experience. Steele (2009) highlights the basic principles of using drawing as an intervention: Drawing is able to trigger the sensory memories when it is trauma focused, it actively involves the client in externalizing the trauma in a directed and controlled manner, the drawing can become an external, symbolic and thus manageable representation of the trauma, drawing helps to give language to the story, and it provides a safe means to express the visual experience thereby lessening the symptoms of the trauma. Steele (2009) is clear about the importance of questions being directed to trauma themes and sensations, such as overall sensations, intrusive thoughts, startle reactions, anger, revenge and accountability (survivor guilt).

In further research, Sarid and Huss (2010) discuss three stages involved in art therapy with clients experiencing Acute Stress Disorder. First, the body and senses are involved in exploring and manipulating art materials. Second, meaning is attributed to the art, to the product as a whole as well as its parts. Third, the reflective component leads way to elaborating upon, reframing and re-explaining as well as further manipulating of the art

work that leads to an integrated story of the traumatic memories (Hass-Cohen & Carr, 2008; Perry, Pollard, Blakely, Baker & Vigilante, 1995).

Wheeler (2007) describes how implicit memory is activated through emotional arousal and the senses, something that is necessary in accessing the traumatic memories in order to link them within the neural networks of the brain in adaptive ways. A framework for treatment based on Shapiro's (2001) Adaptive Information Processing Model (AIP) uses two phases. First, safety and symptoms are stabilized by increasing resources both external and internal and second, psychotherapy aims at processing the painful memories in order to move toward reorganization of those memories in an adaptive way (Wheeler, 2007).

Malchiodi (2008) writes of the communication of emotion and trauma memories through media as a way for the trauma survivor to "be witnessed by others", and the value this has in the move toward healing. Malchiodi (2008) continues: "All children have the potential to reenact and retell their experiences through creative expression, particularly when their therapists recognize and utilize the power of art, play, stories, music, and movement to transform suffering and to help them recapture health and hope for the future." (p. xvi)

With this recognition of the value of sensory interventions in trauma-informed therapeutic work with adolescents, this section will continue by exploring considerations and challenges for counselors followed by a review of adventure-based and creative arts interventions. Practical sensory interventions are listed in Appendix A.

Considerations and Challenges for Counselors

In order to promote healing and a sense of survival for those who have had trauma experiences, indeed it will take more than throwing random sensory interventions in the general direction of clients. Echterling, Presbury and McKee (2005) write: "...research has

consistently found that several factors promote resilience among children and youth. These protective factors include supportive caregivers, self-efficacy, meaning in life, good regulation of emotional arousal, and problem-solving abilities (Masten & Reed, 2002)” (p. 11). The focus here will also explore the therapeutic alliance, community support, and client strengths, keeping in mind the nature of working with adolescents.

Wheeler (2007) writes of the importance of the therapeutic relationship in developing an environment of safety. Trust issues may be engrained within the anxiety of the trauma, and make it that much more challenging to develop the trusting, safe, and healing environment that is sought. With support, collaboration, and connection, a corrective emotional experience can take place within the therapeutic relationship. Siegel (2003) describes this corrective emotional experience as follows: “In effective psychotherapy, the therapist offers the client a relationship foundation and specific experiences that help to promote complexity during the session and eventually to have the ability to self-organize and move toward complexity outside the session” (p. 5). The therapeutic alliance is an integral part of the success of psychotherapy without regard to the model used (Martin, Garske, & Davis, 2000; Rogers, 1957; Wheeler, 2007). Placing an emphasis on developing a trusting and emotionally safe environment in which to collaborate is of utmost importance to the success of the work with clients.

Banks (2006) describes a relational-cultural model of therapy (Jordan, Miller, Kaplan Surrey & Stiver, 1991) which highlights a move toward connection rather than isolation in relationships. Banks (2006) suggests that in trauma, the coping response is most often “fight, flight, or freeze”, all of which cause some sense of disruption in relationships. Suffering is seen in this model as an outcome of isolation and disconnection from relationships, and healing is seen as moving out of isolation back into connection with

others. Steele and Kuban (2011) note the difference within their own practice between children who did well and those who did less well. These children who did well were able to identify more statements made by parents that made them feel good about themselves, had more experiences and interactions with parents and peers, and made various statements of connection with a significant adult (p. 18). Siegel (2003) writes of the ability for connection in relationships to impact and even form neural connections within the brain. Siegel (2003) suggests that relationships may not only exist within memory, but also shape the circuits that support the processing of memory and self-regulation. Siegel (2003) describes this as “the source of the power of relationships to nurture and to heal the mind” (p.14). It seems clear that interconnection and a sense of value within a community are important components to the post-trauma healing process.

Having looked at the therapeutic relationship as well as other external resources, there is something to be said about the power of a client’s internal resources as well. Siegel (2003) suggests that psychotherapy can promote healing by “enabling the self-organizational processes of the mind to move toward complexity” (p. 6). When the client is able to integrate their own memories and their own personal strengths into the healing process, it is also beneficial to the healing process. The goal is to guide individuals to reframing their traumatic experiences in a way that they experience the memories as survivors and through personal resilience rather than in terror that leads toward the once adaptive coping responses (Kuban & Steele, 2011).

Gil (1996) highlights a number of principles in working with abused adolescents in order to promote a trusting relationship and develop rapport, including some of the following: having a nonjudgmental attitude, inviting discussion about the adolescent’s desired topic, positivity, being open and initially unchallenging of statements, finding

understanding in the intent of symptoms, presenting clear boundaries, avoiding power struggles, being creative and using nonverbal therapy techniques. Paying special attention to these topics will be useful in developing the trust and safe environment that can lead toward trauma healing.

While keeping in mind all these things regarding relationships and development, as counselors it is also important to consider how to select interventions that will support and encourage a client's unique movement towards the desired outcomes. In choosing intervention activities, there are a number of things to keep in mind. Lung, Stauffer and Alvarez (2008) make note of some issues to consider prior to choosing an activity. Consider the clinical goals of the client and the goals of the activity as first steps in deciding what intervention or activity to use. Begin with the intention of leading the client to address their particular concern and move toward their goals, recognizing that clients may very well move in tangential directions. Keep in mind, also, the client's "interests, strengths and limitations" (p. 12). In addition, note the client's "stage of change" (p.13), where they are in their process of reaching their goals so as to create a well matched challenge that will continue to move them along from that unique place where they are. Consider also previous experience, in regards to matching the levels of risk, reinforcing learning, and evaluating progress (p. 12-13). These considerations are beneficial to keep in mind in matching specific sensory interventions, such as the ones described here, with the needs of particular clients.

Adventure-based Interventions

As trauma is a sensory experience, Ernzen and Lewis (2006) introduced an adventure healing program that worked with adolescents with multiple trauma experiences. Their work used aspects of trauma-informed care, adventure (think fun noodles, boulders, balls, ropes, blind folds, hula hoops, etc), and logotherapy to focus on creating corrective experiences

where participants could work toward resolution of traumatic experiences and reactions by decreasing arousal, alleviating symptoms and cultivating new ways to respond to fear, anxiety and a lack of confidence. Care was given to not elicit hyperarousal. With careful consideration of the participants and interventions used they were able to give them successful experiences where students were able to control their personal and external experiences and environments. This section will continue to define adventure based counseling interventions, including history and theory of the approach as well as specific considerations and challenges for counselors using this approach. Interventions such as those implemented by Ernzen and Lewis (2006) are presented in the final adventure section.

Defining adventure-based interventions. Adventure-based counseling (ABC) incorporates structured activities (such as low and high challenge courses) that often take place outdoors (Glass & Myers, 2001, Schoel, Prouty, & Radcliffe, 1988). ABC combines outdoor education, experiential learning, and group counseling in order to work with individuals to promote positive change (Glass & Myers, 2001, Fletcher & Smith, 1999, Priest & Gass, 1997, Schoel et al., 1988). ABC has proven to be most useful with children and adolescents at risk for delinquent behavior. Considering the effects and symptoms of trauma as they present in children and adolescents and understanding that trauma is at times misinterpreted as delinquent behavior, ABC is included in this section. Adventure-based interventions, particularly low element challenge courses (as opposed to high ropes challenges) often support an increase in self-concept, development of trusting relationships, goal setting and problem solving.

History and theory. The earliest examples of health care interposed with wilderness experiences began in the early 1900's when Manhattan State Hospital East in New York began housing tuberculosis patients outdoors in order to minimize the spread of disease

(Schoel & Maizell, 2002, Swank & Daire, 2010). Following this success of housing individuals outdoors in tents and then finding ways to incorporate the outdoors into treatment, they continued by integrating camping into treatment with the psychiatric patients.

Adventure-based counseling is most often traced to Kurt Hahn and his colleagues in the 1940's with the combining of helping interventions and wilderness programming into a program called Outward Bound (Glass & Myers, 2001). Outward Bound began in private schools in Germany then Britain, with goals of developing the "total child" by moving toward self-expression, rather than developing only the cognitive aspects. Much of the initial courses were used as training for sea during the war, even the term Outward Bound refers to a ship leaving harbor (Schoel, et al., 1988). If you can envision a high ropes challenge course, the poles, cables and ropes would remind you of the masts of a ship. Outward Bound made its way to the United States, and was followed by Project Adventure, founded by Jerry Pieh and others in 1971 who worked to integrate a similar program into the traditional school setting. Adventure-based counseling, as it is now called, began in its earliest form as an extensive alternative education program lead by Project Adventure staffers Jim Schoel and Steve Webster. Adventure activities, group construction, craft projects and community service were incorporated into general teaching with a mixed group of students, half were considered higher risk. Later, similar programs began to be incorporated into other schools, and in outpatient therapy groups from hospital settings (Schoel, et. al, 1988).

Schoel, et. al, (1988) provide an integrated theoretical basis for the Adventure-based Counseling approach as it incorporates the three dimensions of human experience: feeling (affect), thinking (cognition) and doing (behavior). The physical nature of doing the

activities is combined with the trust building, challenge and provocation of empathy, and the goal-setting and problem-solving nature of the activities (Schoel, et. al, 1988).

Adventure-based specific considerations and challenges. In order to incorporate adventure-based interventions into a traditional counseling world there are a number of considerations and challenges. Schoel, Prouty & Radcliffe (1988) highlight the “Adventure Wave”, which highlights the various components and stages in leading adventure-based interventions. The first is developing a “Bedrock”, a foundation, training, and understanding in the essence of Adventure-based counseling (p. 27-63. The next component is “Sequencing”, which deals with development of a flexible curriculum tailored to the abilities, goals, and needs of the group or in some cases, the individual (Schoel, et. al, 1988). “Briefing”, the next step, relates to the establishing of authority, framing the experience (knowing what will happen and how, setting expectations, etc), the full value contract (developing spoken trust within the group) and goal setting (Schoel, et. al, 1988). “Leading” involves the action part of the experience, as well as the counseling piece as it maintains empathic concern during the activity with the whole group, with subgroups and with individuals (Schoel, et. al, 1988). “Debriefing”, the final phase to be explored, before continuation of the “Wave” of briefing, leading and debriefing, is the processing piece of the adventure experience. This provides an opportunity to move beyond doing, and move to talking about it and processing it in a way that allows the experience to transfer into real life. Counselors in the debriefing phase will implement their reflecting and observation skills, work through resistance, revisit sequencing, and eventually terminate (Schoel, et. al, 1988).

It becomes apparent that Adventure-based counseling incorporates another level of training and competence in the skills and tasks related to the adventure dynamic. “While counselors utilizing ABC implement traditional counseling skills (e.g. reflective listening,

verbal and nonverbal communication, ethical behavior), skill in group process and dynamics are particularly important” (Glass & Myers, 2001). In addition to these basic counseling skills, competence is required in the areas of the challenges, initiatives or interventions, in a commitment to participant’s emotional and physical safety and in the ability to appropriately sequence the activities according to the needs of the clients.

Interventions and uses. The following is a selection of adventure-based interventions that beginning counselors could apply to working with individuals and/or groups who have experienced trauma. The following interventions are provided in Appendix A with additional information including a general purpose, the type of activity and supplies needed to carry out the experience. Directions, linking the activity to the clinical issues, considerations and adaptations are also available in order to put these activities into practice.

Bouldering. Bouldering is a simplified version of climbing on a climbing wall as it does not require the use of a formal safety system using ropes and harnesses. Instead, bouldering refers to lateral climbing at a comfortable distance from the ground with the use of a spotter in order to protect the climber’s head and neck in case of a fall. Bouldering offers the chance to identify problems and work in cooperation to resolve the problems that the climber might face. Various opportunities for observation by the counselor are also presented. Bouldering exposes concerns such as trust, support, and responsibility. (Lung, Stauffer & Alvarez, 2008).

Circles of Comfort. This activity provides an opportunity to explore various levels of comfort. Create an area with two circles (one smaller circle inside the other). The area inside the smallest circle represents the Comfort Zone, where people are relaxed and perfectly comfortable. The area outside the smallest circle and inside the larger circle

represents the Challenge Zone, where people feel a little more stress, anxiety, and general discomfort. The area outside of the larger circle represents the Crazy Zone; this is where things feel chaotic, out of control or unpleasant. Present various stimuli such as: speaking in front of a group of people, or moving to a new school. Individuals will move from area to area according to their personal reaction to that particular experience. Counselors can explore the various levels of comfort, as related to where they found themselves most comfortable standing. Other processing might include exploring decision-making, self-talk, and stress reactions (Ashby & Kottman, 2008).

Lean On Me. Facing each other, hold onto the outside of a 12-15 ft piece of circular webbing. Lean away from each other as far as possible, while still remaining safe. Work together to move from standing, to squatting, and back up to standing again while leaning fully away from each other. Counselors might consider issues of trust, looking at how well you supported each other and what it takes to trust someone (Lung, et. al, 2008).

Shoe String Knots. Begin by providing every other person with a shoe string with knots in it (or if working with an individual, provide just one knotted shoe string). Have the participant(s) find a partner. The objective is to untie all the knots using only one hand each. This activity can be easily linked to the stress in one's life, and the process of learning to deal with it (Ernzen & Lewis, 2006).

Stepping Stones. This activity challenges a group to move as a team across a large space using stepping stones. Have the group members name the various pitfalls (that fill the larger space) or things that get in the way of success. The group earns a stepping stone by identifying an attitude or behavior necessary for achieving their goals (graduation, etc.). Each person must remember all the attitudes as they move to the next stepping stone. No one should help them remember, but may assist by acting the attitudes out. The island

should be placed in the middle of the area, and everyone must get to the island before anyone may proceed to the final goal area. If anyone steps in the “water/marsh” everyone must return to the beginning. This activity is linked to the attitudes and behaviors that are helpful in reaching one’s goals. The group works to develop trust, support and relationships throughout the process (Ernzen & Lewis, 2006).

The previous sampling of adventure-based activities provides an example of various sensory based interventions in trauma-informed practices. Refer to Appendix A for more detailed information regarding each intervention.

Creative Art Interventions

This section will explore a working definition of creative art interventions, followed by a brief look at history and theory. This is followed by various considerations and challenges specific to interventions that use the creative arts, and a selection of trauma-informed creative art interventions. Further details related to the interventions are available in Appendix A.

Defining creative art interventions. It has often been said that counseling is an art, and so it rings true that the use of creativity within the counseling session can also have healing powers. Healing arts such as music, dance, art, literature, drama, and play can have an effective place within counseling (Gladding, 1998; Williams and Spruill, 2005). Williams and Spruill (2005) suggest that “Each of these creative mediums can assist clients in gaining unique perspectives on problem issues and result in the generation of options and possibilities previously unavailable” (p.65).

For the purposes of this paper, the use of creative art in the work with traumatized adolescents can be of any such medium as is best tailored to the client. Creative art interventions, might also be described as “expressive therapies” as described by Malchiodi

(2005) to include the narrower fields of “art therapy, music therapy, dance/movement therapy, drama therapy and psychodrama, poetry therapy, play therapy, and sandtray therapy...” (p. xv).

History and theory. Perry discusses the world’s ancestral influence as communities have dealt with trauma since the beginning of time. Survivors of trauma have historically been participants in a variety of sensory activities across seas and across cultures through rituals, healing practices, and traditions that are based in the senses (Malchiodi, 2008, forward). McNiff (1981, 1992) also suggests that the arts, just as they are a part of everyday life, have been a part of healing processes since ancient times (Malchiodi, 2005, p. 4). Storytelling is one example of the use of creativity in ancient times, as the heroic folk stories that are passed down for generations often speak of some struggle or crisis and develop a way of moving through it (Echterling, Presbury, & McKee, 2005).

The idea of incorporating art into medical treatment began in the late 1800’s, along with the origination of psychiatry and a move toward “moral therapy” (Malchiodi, 2005, Fleshman & Fryrear, 1981). Throughout this time, studies continued in regards to psychodrama, drawings, play and sandplay until the 1930’s and 1940’s when creative arts therapies became better known (Malchiodi, 2005).

Over more than 50 years, each separate field of expressive therapies has drawn upon its own unique theoretical base and includes best practices developed across more than 50 years (Malchiodi, 2008, p. 11). Art therapy, for example, often draws upon a humanistic approach, and a developmental approach. Some of the special characteristics of expressive therapies include their ability to lend themselves toward self-expression, active participation, imagination, and mind-body connections (Malchiodi, 2008, p. 8-9).

Creative art specific considerations and challenges. Whether using art, music, drama, play or sandtray, there are some considerations and challenges for counselors to be aware of. Steele (2009) writes of the impact of trauma experiences on children and the value for therapists in identifying the prominent themes for each unique child. “They [therapists] must be able to see how the children perceive the world around them as a result of their exposure. Drawing provides the opportunity to view the experience and see it as the child sees it” (p. 3). This eyewitness view of the trauma experience helps therapists as they work to find the most helpful ways to overcome the traumatic memories and for the child to view themselves as survivors.

While such expressive therapies can be helpful for the healing process, it is important to maintain a controlled and safe environment when exploring trauma. Steele (2009) does not encourage free form drawing for trauma victims due to the nature of reexperiencing that can occur. “The revisiting of trauma through drawing must be experienced in a controlled fashion so victims actually gain control over an array of out of control, internalized, implicit memories and reactions” (Steele, 2003, p. 2). With a goal of helping clients to move from experiencing terror at the memories, to re-integrating the memories in a way that promotes healing, resilience and survival, it is important to recognize that artistic expression, whether that is drawing, the use of clay, etc. particularly with individuals who have experienced sexual abuse or attacks, it is important to use such activities in a controlled way so as not to reinstate the sense of terror and over arousal into the safe place of the counseling environment (Steele, 2009; Underwood, et al., 2007).

Malchiodi (2008) notes that the value of creative art interventions unlike talk therapy exists in the following characteristics: “(1) externalization, (2) sensory processing, (3) attachment, and (4) arousal reduction and affect regulation” (p. 14). In externalization,

trauma experiences can be expressed and experienced as something outside of themselves. Sensory processing is a key characteristic as the activities themselves are both participatory and engage the senses in some way where language may not be accessible. As trauma effects relationships, art and play have shown to play an integral role in relationship development particularly with children and parents and can support a move toward healthy attachment relationships. Art in particular can play a role in arousal reduction and affect regulation as the repetitive movements can become soothing to the experienced anxiety (Malchiodi, 2008).

Interventions and uses. The following is a selection of creative art interventions that beginning counselors could apply to working with individuals and/or groups who have experienced trauma. Similar to the adventure-based interventions, each creative art intervention is listed here in brief. Appendix A provides a more in depth look at the general purpose, the type of activity and supplies needed to carry out the experience. Directions, linking the activity to the clinical issues, considerations and adaptations are also available there in order to put these activities into practice.

Artistic Expressions. The use of art can be structured or unstructured depending upon the individual you work with. Unstructured artistic expression allows the individual space to communicate from their imagination. Structured experiences might begin with suggestions such as the following: Draw a picture of your “worry”. Using a selected figure, Show me what “safety” or a safe place looks like for this figure (real or imaginary). How big is your (worry, fear, hurt, etc.)? Using art, the color, shape and size can all be explored related to the individual’s experiences (AATA & Malchiodi, 2005).

The Feeling Word Game. Begin by having the client name, then write or draw some of the feelings that someone their age often feels on the papers. Once all of the feelings have been represented, line up the feeling words and present a container of ‘feelings’

(poker chips). Begin by telling a story about yourself including both positive and negative feelings. After the story, place the feeling chips on the appropriate feeling words, varying the amount of chips according to how much of each was felt. Next, tell a nonthreatening story about the participant, who then puts the chips down on what s/he felt as the character in the story. Next, the participant tells a story and you lay the feeling chips. Play continues until major issues are explored. The activity provides an opportunity for clients to put together a narrative and give words to the feelings they experience. This process is useful for recognizing conflicting feelings and for facilitating an indirect discussion in areas where the client might not yet be able to communicate directly (Hall, Kaduson & Schaefer, 2002; Kaduson, Schaefer, 1997).

The Hero In You. Begin by playing Mariah Carey's "Hero", and suggest that the individual(s) may choose to close their eyes. Have the individual(s) listen to the words and think about the messages. After the song, have the individual(s) draw any images, thoughts or feelings related to how the song made them feel. Have the individual(s) share as they are comfortable their art and the related messages of the song. The messages in the song suggest that there is a hero within us all. The song can be applied to affect the child's mood and work toward self-awareness and self-esteem (Lowenstein, 1999).

Mandalas. This circular art form is a way to help clients find a space for stress reduction, relaxation and centering amidst emotional chaos. Start with white paper and draw an outline of a circle with a plate, compass or freehand. There is no right or wrong way to make a mandala. Typically, the circular shape is filled in with patterns or designs, sometimes extending beyond the circular boundary. Give the image or the series of images a title (Malchiodi, 2002).

Pain and Strength Beads. This activity provides a way for the client to identify a personal, painful experience, as well as explore what helped him/her get through the experience. Once a situation has been identified, invite the client to make a bead that symbolizes or represents the event. Then, ask the client to identify something that helped him/her get through it or gave hope to the situation. Finally, invite the client to make another bead that symbolizes this strength or coping strategy. When the beads are complete, you may put a hole through them and bake them to make a necklace or key chain swag; or simply give the beads to the client. This process aids clients in putting together a narrative surrounding a traumatic event while also developing specific coping strategies (Lung, et. al, 2008).

The sensory interventions provided here give beginning counselors a practical selection of trauma-informed interventions. In addition, a framework for understanding trauma in adolescence, an interpersonal neurobiology, and assessment practices have been presented. The following appendices provide a more in depth look at these interventions as well as additional resources for expansion of a trauma-informed knowledge base.

Appendix A:

Trauma-Informed Sensory Interventions for Adolescents

Adventure-Based Interventions

Brains, Beads and Boulders: Trauma-Informed Sensory Interventions for Adolescents

The repetitive nature of using senses in adventure-based activities and in the creative arts has a way of promoting healing through re-integration of the memories and the neural networks within the brain. Therefore, the following selection of interventions aims to integrate this trauma-informed neurobiology with sensory interventions as applicable for therapeutic work with adolescents. The selected interventions offer suggestions for matching the activity with clinical issues, special considerations for facilitation, and suggestions for adapting the activity to best meet the unique treatment plan for each individual. In this way, counselors can select, adapt and facilitate these interventions in a way that is not random. Instead, interventions should be integrated through a trauma-informed understanding, from a unique client assessment and stage of healing, as well as within a therapeutic and working alliance, that takes into account the nature of each unique individual.

Bouldering

Adapted from "Power of one, one, one: adventure and experiential activities for one on one counseling sessions" by Lung, Stauffer and Alvarez (p. 29-32).

General Purpose: Problem-Solving, Trust/Support

Type: Traditional Challenge Course Activity

Supplies Needed: A location to boulder (climbing wall, building, etc.)

Bouldering is a simplified version of climbing on a climbing wall as it does not require the use of a formal safety system using ropes and harnesses. Instead, bouldering refers to lateral climbing at a comfortable distance from the ground with the use of a spotter in order to protect the climber's head and neck in case of a fall.

Matching the Activity to Clinical Issues:

- Climbing offers the chance to identify problems and work in cooperation with a spotter to resolve the problems that the climber might face. Various opportunities for observation by the counselor are also presented.
- Climbing immediately exposes concerns such as trust, support, and responsibility.

Considerations for Facilitation:

- **Easily applicable to:** This activity works easily with most disorders, and can be used with individuals or in a group setting where a significant degree of trust has been determined within the group.
- **Age range:** Early elementary to adult.
- **Risk:** The task does hold physical risk (potentially falling) and minimal emotional risk.
- **Level of personal skills required from clients:** Bouldering requires average problem-solving skills, communication skills and physical coordination.
- **Personal and physical space issues:** Personal space issues may be challenged in this activity due to the need for spotting the participant.
- **Sequencing of the activity:** This activity is typically used in middle to end range of treatment.

Adapting Facilitation:

- Changing roles by having the therapist climb reframes the experience by placing trust in the client. This may enhance relationship development and expose other issues such as client self-esteem or trust in him/her self.
- The challenge can be a cooperative one. One person starts where the other falls, until the goal is reached.
- Challenge or difficulty level can be increased by taping off certain rocks that are not to be used.

Circles of Comfort

Adapted from “Active interventions for kids and teens: adding adventure and fun to counseling!” by Ashby, J. S., Kottman, T. & DeGraaf, D.G.

General Purpose: Communication, Responsibility, Self-Awareness, Trust/Support

Type: Icebreaker, Deinhbitizer

Supplies Needed: Open space and rope, webbing, string, yarn, tape or other medium to create concentric circle boundaries.

Circles of Comfort provides an opportunity to explore various levels of comfort. Create an area with two circles (one smaller circle inside the other). The area inside the smallest circle represents the Comfort Zone, where people are relaxed and perfectly comfortable. The area outside the smallest circle and inside the larger circle represents the Challenge Zone, where people feel a little more stress, anxiety, and general discomfort. The area outside of the larger circle represents the Crazy Zone; this is where things feel chaotic, out of control or unpleasant. Individuals will move from area to area according to their personal reaction to a particular experience. These stimuli might include:

Speaking in front of a group.

Performing in a talent show.

Taking an SOL test.

Attending a party where everyone speaks another language.

Sky diving

Fire drills

Hiking in the dark at a National Park.

Moving to a new school.

Let your imagination run wild. Help the participant(s) consider what would be Comfortable, Challenging or Crazy as they move to different circles. If you're in a group, have them notice where others locate themselves.

Matching the Activity to Clinical Issues:

- A counselor might explore what circle individual(s) found themselves in the most and which circles were most/least comfortable to be in. Other questions might explore what was learned about the individual or about others during the activity.
- The counselor might explore the decision-making process, what made some more difficult to decide upon.
- Negative self-talk during the activity might also be discussed, and how that could be replaced with positive self-talk. In addition, activities where chaos was experienced and there was a desire to feel more comfortable, could be explored.

Considerations for Facilitation:

- **Easily applicable to:** 1 to more than 100 people. Is useful in working through a variety of goals, as adapted by the facilitator.
- **Most common age range:** Third grade and up
- **Typical level of risk:** The task carries minimal physical risk and medium emotional risk.

- **Personal and physical space issues:** Personal space issues may be challenged in this activity depending on the number of participants and the size of the various zones.
- **Sequencing of the activity:** This activity is typically used in the beginning to middle range of treatment.

Adapting Facilitation:

- If in a group, take turns determining the next experience/stimulus.

Lean On Me

Adapted from "Power of one, one, one: adventure and experiential activities for one on one counseling sessions" by Lung, Stauffer and Alvarez (p. 67-70).

General Purpose: Trust/Support, Relationship

Type: Adventure-based Activity

Supplies Needed: 1 inch tubular webbing, 12-15 ft long, tied into a circle with a water knot

Directions:

Facing each other, hold onto the outside of the circular webbing. Lean away from each other as far as possible, while still remaining safe. While fully leaning back, work together to move from standing to squatting and back up to standing again.

Matching the Activity to Clinical Issues:

- Consider how well you supported each other, how you know if you can trust someone, and how people develop trust.
- What role does relationship play in trusting someone? Consider the impact of loss, intrusion, trauma, etc on a family system, as that may be experienced if someone were to let go of the webbing.
- Consider how we lean on others and who we lean on. Consider who leans on the individual and what others' expectations are.

Considerations for Facilitation:

- **Easily applicable to:** This activity can be used with any diagnostic category. This activity helps to enhance trust and to develop a positive therapeutic alliance. Lean on Me can highlight issues related to appropriate risk and the impact actions may have on others. Works well individually, or can be adapted for use with a group.
- **Most common age range:** Late latency through adult.
- **Typical level of risk:** Trusting oneself and/or trusting others can present some emotional risk. There is also some physical risk. Consider your surroundings in case someone lets go.
- **Level of personal skills required from clients:** Requires minimal problem-solving skills and average communication skills and physical coordination.
- **Personal and physical space issues:** There is no risk to personal space. Physical space should be considered to prevent injuries in the event of a fall.
- **Sequencing of the activity:** Works best in mid to late treatment in order to enhance trust levels.

Adapting Facilitation:

- In order to increase the challenge: try the activity with your eyes closed or in silence.
- A major adaptation would be to do the "Two-Person Trust Fall". One person becomes stiff as a board, crosses their arms with hands tucked under armpits, and falls backward into another person who catches the faller. Commands are used for safety.
 - Faller: "Spotter ready?"
 - Spotter: "Ready."
 - Faller: "Falling."

- Spotter: “Fall on.”

Letting go of control, trusting oneself or trusting others are issues that often present themselves.

- A group adaptation of the Two-Person Trust Fall is “Willow in the Wind”. In this activity, the group forms a shoulder-to-shoulder circle of spotters. Ensure safety by evenly distributing spotters by size and ability around the circle, spotters should have their feet planted, arms and hands outstretched. One person in the center of the circle becomes stiff as a board, crossing their arms, tucking hands under arms and uses the following commands:
 - Faller: “Group ready?”
 - Group: “Ready.”
 - Faller: “Falling.”
 - Group: “Fall on.”

The willow should be passed gently around the circle for as long as they are comfortable, eyes opened or closed.

Shoe String Knots

Adapted from “Adventure healing: trauma, resiliency, and the search for meaning” by Ernzen, F., & Lewis, R.

General Purpose: Trust/Support, Relationship, Stress Discussion

Type: Icebreaker, Deinhbitizer

Supplies Needed: Knotted shoe strings

Provide every other person with a shoe string with knots in it (or if working with an individual, provide just one shoe string). Have the participant(s) find a partner. The objective is to untie all the knots using only one hand each. The facilitator might create additional knots during the activity.

Matching the Activity to Clinical Issues:

- The activity is easily linked to issues of stress in one’s life, and as a beginning discussion to exploring what stress is, and how we deal with it.

Considerations for Facilitation:

- **Easily applicable to:** Could be useful in a group or with individuals.
- **Most common age range:** Early adolescent through adult.
- **Typical level of risk:** There is minimal physical risk.
- **Level of personal skills required from clients:** Requires minimal problem-solving skills, average communication skills and physical coordination.
- **Personal and physical space issues:** There is minimal risk to personal space, and no physical space issues.
- **Sequencing of the activity:** Works best in early to mid treatment.

Adapting Facilitation:

- Create an increased stress level by walking around adding more knots to the shoe strings.
- **Knot or Not:** With rope/webbing, (15-20 feet) or string/yarn (1-2 feet), or other material, tie a knot, or don’t tie a knot, in the rope. Arrange the rope/string in a pile on the floor with both ends extending out of the pile. Have the individual or group decide whether there will be a knot in the rope or not when the two ends are extended in a straight line. Participants may not touch the rope. After a given amount of time, have the group/individual decide on whether it is a “knot” or “not a knot”. This could be done by expecting group consensus or by voting (Ashby, Kottman & DeGraaf, 20008).

Stepping Stones

Adapted from “Adventure healing: trauma, resiliency, and the search for meaning” by Ernzen, F., & Lewis, R.

General Purpose: Trust/Support, Relationship, Problem-solving,

Type: Adventure-based Activity

Supplies Needed: Physical space, stepping stones (rubber spots, carpet/jean squares), an island (larger rug or identifiable area), pitfalls (imagined or any objects that are identified as pitfalls: balls, fun noodles, or papers identifying the pitfalls),

Challenge a group to move the entire group across a large space using stepping stones. Have the group members name the various pitfalls or things that get in the way of success that fill the larger space. The group earns a stepping stone by identifying an attitude or behavior necessary for achieving their goals (graduation, etc.). Each person must remember all the attitudes as they move to the next stepping stone. No one should help them remember, but may assist by acting the attitudes out. The island should be placed in the middle of the area, and everyone must get to the island before anyone may proceed to the final goal area. If anyone steps in the “water/marsh” everyone must return to the beginning.

Matching the Activity to Clinical Issues:

- The activity should be linked to the attitudes and behaviors that are helpful in reaching one’s goals.
- Consider how the group develops trust, support and relationships throughout the process.

Considerations for Facilitation:

- **Easily applicable to:** This activity works best with a group of 8-15, though it could be adapted to work with an individual identifying particular attitudes or behaviors that help them to achieve their goals.
- **Most common age range:** Early adolescent through adult.
- **Typical level of risk:** There is medium physical risk.
- **Level of personal skills required from clients:** Requires minimal problem-solving skills and average communication skills and physical coordination.
- **Personal and physical space issues:** There is moderate risk to personal space, particularly if the island is a small space, and in giving support from stone to stone. Physical space needs to be adequate in order to create challenge.
- **Sequencing of the activity:** Works best in mid to late treatment.

Adapting Facilitation:

- The activity may be adapted to work with a smaller group or with an individual.
- Increase the challenge by having someone blindfolded.
- Be creative; create a story about the water/marsh and a specific goal to be reached.

Trauma-Informed Sensory Interventions for Adolescents

Creative Art Interventions

Artistic Expressions

Adapted from "Using Art in Trauma Recovery with Children" From the American Art Therapy Association, prepared by Cathy Malchiodi, LPCC, ATR

General Purpose: Self-Awareness, Self-Esteem

Type: Art-based activity

Supplies Needed: Have art supplies available: drawing, painting, collage and modeling.

The use of art can be structured or unstructured depending upon the individual you are working with. Unstructured artistic expression allows the client space to communicate from their own imagination. Structured experiences might begin with suggestions such as the following: Draw a picture of your "worry". Using a selected figure, Show me what "safety" or a safe place looks like for this figure (real or imaginary). How big is your (worry, fear, hurt, etc.)? Using art, color, shape and size can all be explored related to the individual's experiences.

Matching the Activity to Clinical Issues:

- Structured topics can be related specifically to what the individual is working through, or what would help them to manage that concern.

Considerations for Facilitation:

- **Easily applicable to:** May be easily adapted to suit the current themes in counseling, and to move toward resolution. Could be used in individual or group sessions depending on group dynamics.
- **Most common age range:** Early elementary through adolescent.
- **Typical level of risk:** The task carries a medium level of emotional risk.
- **Level of personal skills required from clients:** May require exploration of what colors or shapes could represent. Depending on familiarity with art materials, some instruction may need to be made regarding uses of the materials in a way that promotes freedom of self-expression.
- **Personal and physical space issues:** There are no personal space risks. There needs to be adequate space depending upon the art medium used.
- **Sequencing of the activity:** May be useful throughout therapy.
-

Adapting Facilitation:

- The use of art in its many forms combined with the uniqueness of each individual suggests many ways to adapt the experience. Be creative, while also providing creative space for clients.

The Feeling Word Game

Adapted from "Fifteen Effective Play Therapy Techniques, by Tara M. Hall, Heidi Gerard Kaduson and Charles E. Schaefer" (p. 515-516) and 101 Favorite Play Therapy Techniques by Kaduson & Schaefer (p. 19-21)

General Purpose: Communication, Self-Awareness

Type: Art-based activity, Feelings-based activity, Game-based activity

Supplies Needed: Eight or more 4x6 pieces of paper, a marker, poker chips (or play money, or pebbles)

Introduce the activity as the Feeling Word Game. Begin by having the client name, and write or draw some of the feelings that someone their age often feels on the papers. Once all of the feelings have been represented, line up the feeling words and present a container of 'feelings' (the poker chips). Begin by telling a story about yourself including both positive and negative feelings. After the story, place the feelings on the appropriate feeling words, varying the amount of poker chips according to how much of each word was felt. Next, tell a nonthreatening story about the participant, who then puts the chips down corresponding to what s/he felt as the character in the story. Next, the participant tells a story and you lay the feeling chips. Play continues until major issues are explored.

Matching the Activity to Clinical Issues:

- Helps clients put together a narrative, giving words to the feelings they experience.
- Aids in noting conflicting positive and negative feelings.
- Conversation can be facilitated to indirectly address issues where the client may not communicate directly.

Considerations for Facilitation:

- **Easily applicable to:** This activity is a great way to help children both recognize and verbalize their feelings in an indirect, nonthreatening manner. It is well suited to those with conduct problems, ADHD, as well as anxiety.
- **Most common age range:** Early elementary through early adolescent.
- **Typical level of risk:** The task carries a medium level of emotional risk.
- **Level of personal skills required from clients:** Some communication skills are required in order to develop a narrative.
- **Personal and physical space issues:** There are no physical or personal space risks.
- **Sequencing of the activity:** This could be used in the early to middle stages of treatment.

Adapting Facilitation:

- Psychoeducation could be incorporated depending on the client's level of feeling word understanding.
- The therapist could continue telling the stories, with the individual placing the feeling chips each time, until comfort was established.

The Hero in You

Adapted from “Creative Interventions For Troubled Children & Youth” by Liana Lowenstein.

General Purpose: Self-Awareness, Self-Esteem, Resilience

Type: Art-based activity, Music-based activity

Supplies Needed: the Song- “Hero”© by Mariah Carey (Copyright by Sony Music), medium for playing music, paper and coloring/painting supplies.

Play Mariah Carey’s “Hero”, and suggest that individual(s) may choose to close their eyes, Have the individual (s) listen to the words and think about the messages. After the song, have the individual(s) draw any images, thoughts or feelings related to how the song made them feel. Have the individual(s) share as they are comfortable their art and the related messages of the song.

Matching the Activity to Clinical Issues:

- The message in the song is that there is a hero within us all.
- The context can be applied to affect the child’s mood, stimulate emotion, and in working toward self-awareness and self-esteem.

Considerations for Facilitation:

- **Easily applicable to:** Easily used with individuals, groups or families.
- **Most common age range:** Ages 9-16
- **Typical level of risk:** The task carries a minimal level of emotional risk.
- **Level of personal skills required from clients:** Minimal personal skills required.
- **Personal and physical space issues:** There are no personal space risks, physical space should allow for a place to do artistic activities.
- **Sequencing of the activity:** This could be used in the middle to late stages of treatment.

Adapting Facilitation:

- Other mediums of artistic expression could also be used, such as creating a music video, or personalizing the words of the song.

Mandalas

Adapted from “Mandalas: Making Order Out of Disorder” From “The Soul’s Palette; Drawing on Art’s Transformative Powers for Health and Well-Being”, by Cathy Malchiodi.

General Purpose: Self-Awareness, Relaxation, Communication,

Type: Art-based activity

Supplies Needed: 12”x12” white paper, plate or compass, ruler, and art materials (colored pencils, markers, oil pastels, or colored chalk)

Start with the white paper and draw an outline of a circle with the plate, compass or freehand. There is no right or wrong way to make a mandala. Typically, the circular shape is filled in with patterns or designs, sometimes extending beyond the circular boundary. Give the image or the series of images a title.

Matching the Activity to Clinical Issues:

- Helps clients find a space for stress reduction, relaxation and centering amidst emotional chaos.
- Provides a means of coping in the moment.
- May explore the naming of the image, as well as other aspects of the image itself.

Considerations for Facilitation:

- **Easily applicable to:** May be useful within a session, or as homework when appropriate. Useful for individuals or groups.
- **Most common age range:** Early elementary through adult.
- **Typical level of risk:** The task carries a low level of emotional risk.
- **Level of personal skills required from clients:** Requires minimal skills from clients.
- **Personal and physical space issues:** There are no physical or personal space risks.
- **Sequencing of the activity:** This activity may be used at any time.

Adapting Facilitation:

- If it is challenging to find a place to begin, start with a heart, star or flower at the center of the circle and allow the selected image to center the rest of the mandala.

Pain and Strength Beads

Adapted from "Power of one, one, one: adventure and experiential activities for one on one counseling sessions" by Lung, Stauffer and Alvarez (p. 83-84).

General Purpose: Relationship, Communication, easily adaptable to and useful for Anxiety, Depression, PTSD

Type: Art-based activity, Tactile activity

Supplies Needed: Modeling clay (easy to work with and can be baked in low heat oven for 10 to 15 minutes to harden and form permanent objects, or air dry clay can be used)

Introduce the activity as a way for the client to identify a personal, painful experience, as well as what helped him/her get through the experience. Once a situation has been identified, invite the client to make a bead that symbolizes or represents the event. Then, ask the client to identify something that helped him/her get through it or gave hope to the situation. Finally, invite the client to make another bead that symbolizes this strength or coping strategy. When the beads are complete, you may put a hole through them and bake them to make a necklace or key chain swag; or simply give the beads to the client.

Matching the Activity to Clinical Issues:

- Helps clients put together a narrative surrounding a traumatic event that has occurred.
- Aids in connecting painful situations with specific coping strategies.
- Conversation can be facilitated around the importance of coping mechanisms, as well as identifying specific strengths of the client.

Considerations for Facilitation:

- **Easily applicable to:** This reflection activity is a great way to reinforce coping strategies and works especially well with anxiety disorders.
- **Most common age range:** Early elementary through adult.
- **Typical level of risk:** The task carries a moderate level of emotional risk.
- **Level of personal skills required from clients:**
Some communication skills are needed to be able to discuss the experience the beads represent. Some tactile skills are required to make the beads. The type of trauma experienced should be considered in regards to the use of clay and this tactile sensory experience so as to maintain the space as a safe place.
- **Personal and physical space issues:** There are limited physical and personal space risks, again, depending on the individual. The activity needs some space to create the beads as well as access to an oven (or it can be completed overnight, or have clients finish them at home, unless using air dry clay).
- **Sequencing of the activity:** This activity is generally used during the end phases of treatment.

Adapting Facilitation:

- Plastic colored beads could be used or decorated instead of making beads.

Appendix B:

Additional Resources

Additional Resources

Organizations

American Counseling Association: The Association for Creativity in Counseling
<http://www.creativecounselor.org/>

Association for Play Therapy
www.a4pt.org

Federal Emergency Management Agency (FEMA)
www.fema.gov

National Child Traumatic Stress Network
www.nctsnet.org/nccts

National Institute of Mental Health (NIMH)—Helping Children and Adolescents Cope with
 Violence and Disasters
<http://www.nimh.nih.gov/health/topics/child-and-adolescent-mental-health/children-and-violence.shtml>

The National Institute for Trauma and Loss in Children
<http://www.starrtraining.org/trauma-and-children>

Assessments

Assessment Based Treatment for Traumatized Children: A Trauma Assessment Pathway (TAP)
 provides a downloadable manual and online training in the TAP model.
<http://www.taptraining.net/index.htm>

National Center for PTSD provides a host of resources, information about assessments and
 training for professionals working with individuals with PTSD
<http://www.ptsd.va.gov/professional/index.asp>

National Child Traumatic Stress Network provides in depth information regarding most trauma-
 informed assessment measures, including reliability and validity.
www.nctsnet.org/nccts

Books for Professionals

Adventure Therapy: Therapeutic Applications of Adventure Programming is a reference guide to the
 theoretical aspects of adventure therapy. It includes information on debriefing or processing
 the experience as well as the concept of change and how it takes place.

Gass, M. (1993). *Adventure therapy: therapeutic applications of adventure programming*. Kendall Hunt.

Creative Interventions with Traumatized Children explores the concepts behind the use of
 creativity as an intervention in use with individuals, families, groups, and prevention and has
 a variety of effective examples of creative interventions.

Malchiodi, C. A. (2008). *Creative interventions with traumatized children*. New York: Guilford
 Press.

Islands of Healing and *Exploring Islands of Healing* explore adventure based counseling from a theoretical approach. *Islands of Healing* includes the processes of developing trusting relationships, sequencing the adventure experience, briefing, leading the experience, debriefing and processing the experience, as well as some programs that have been using the approach.

Exploring Islands of Healing updates the original text and includes an additional aspect of metaphor development.

Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Islands of healing: a guide to adventure based counseling*. Hamilton, MA: Project Adventure.

Schoel, J., & Maizell, R. (2002). *Exploring islands of healing: new perspectives on adventure based counseling*. Kendall Hunt.

Books for Parents

Fun to Grow On: Engaging Play Activities for Kids with Teachers, Parents and Grandparents describes more than a hundred therapy-like activities designed to help children focus, cooperate and relax. This book encourages spontaneous fun with inexpensive and non-screen activities to promote interrelationship development with children.

Morin, V. (1999). *Fun to grow on: engaging play activities for kids with teachers, parents and grandparents*. Magnolia Street.

How to Talk to Teens About Really Important Things gives parents a resource for answering the hard topics of life in a sensitive and realistic way.

Schaefer, C. E., & DiGeronimo, T. F. (1994). *How to talk to your kids about really important things for children four to twelve: specific questions and useful things to say*. San Francisco: Jossey-Bass Publishers.

Parenting through Crisis offers ideas about supporting children through the tough times using a Time, Affection and Optimism approach.

Coloroso, B. (2000). *Parenting through crisis: helping kids in times of loss, grief, and change*. New York: HarperCollins Publishers.

Playful parenting teaches parents the value of PLAY. This book expresses the value of fun play as it produces the giggles, and often a flood of other emotions follow. In addition to promoting the concept of play for all ages it includes specific suggestions and activities for parents' use with children.

Cohen, L. (2002). *Playful parenting*. Ballantine Books.

Books for Children at Heart

Brave Bart tells the story of Bart, a kitten who had a "very bad, sad and scary thing" happen to him. He encounters "Helping Hannah" who helps him on his path to healing.

Sheppard, C. H., & Manikoff, J. (1998). *Brave Bart: a story for traumatized and grieving children*. Gross Pointe Woods, MI: Institute for Trauma and Loss in Children.

The Invisible String is all about the invisible connections that we have with others, helpful in overcoming loneliness or separation.

Karst, P., & Stevenson, G. (2000). *The invisible string*. Marina del Rey, Calif.: DeVorss Publications.

When Something Terrible Happens provides space for illustration by the child or adolescent while helping them work through grief.

Heegaard, M. E. (1991). *When something terrible happens: children can learn to cope with grief*. Minneapolis, MN: Woodland Press.

Intervention Resources

101 Favorite Play Therapy Techniques is the go-to resource for play therapists with creative and practical interventions.

Kaduson, H., & Schaefer, C. (Eds.). (1997). *101 favorite play therapy techniques*. Northvale, NJ: Jason Aronson.

Active Interventions for Kids and Teens: Adding Adventure and Fun to Counseling! Includes a synthesis of adventure therapy, the practicalities of using FUN activities with children as well as a listing of 50 activities and ideas for processing the experiences.

Ashby, J., Kottman, T., & DeGraaf, D. (2008). *Active interventions for kids and teens*. Thousand Oaks, CA: Cengage Learning.

Assessment and treatment activities for children, adolescents, and families is a collection of techniques and activities that would be particularly helpful for new clinicians. The activities explore a variety of topics including Feelings Expression, Social Skills, Self-Esteem, and Termination.

Lowenstein, L. (2008). *Assessment and treatment activities for children, adolescents, and families: practitioners share their most effective techniques*. Champion Press.

Best New Games. This fun inducing listing of games is geared for people of all ages. Activities are geared toward building teamwork, common understanding and cooperation.

LeFevre, D. (2001). *Best new games*. Human Kinetics.

Power of One, One, One is a resource with both adventure and creative interventions that can be used with individuals (rather than groups). Interventions are organized by diagnosis and purpose and is particularly user friendly.

Lung, D. M., Stauffer, G., & Alvarez, T. (2008). *Power of one, one, one: adventure and experiential activities for one on one counseling sessions*. Oklahoma City, OK: Wood 'N' Barnes Pub.

Silver bullets, *Quicksilver* and *Bottomless Bag* are 100 game book directories that provide ice breakers, adventure games, initiative problems, and trust activities for use with groups of children and adults alike. These resources encourage positive group dynamics, teambuilding, trust...and euphoria.

Rohnke, K. (1993). *Bottomless bag*. (1995). *Quicksilver*. (2009). *Silver bullets*. Dubuque, IA: Kendall/Hunt Publishing Company

Wilderdom.com provides a searchable and invaluable index to games and adventure activities for use with groups. In addition, it includes a host of other resources in regards to theory and practice, as well as an online store.

Neill, J. (n.d.). *Wilderdom: a project in natural living & transformation*. Retrieved from <http://wilderdom.com/>

Toys

Fidget toys are great tools for relieving stress, encouraging learning and understanding of social, emotional concepts.

Fiddle Diddles, Zip Zap Balls and more.....<http://www.trainerswarehouse.com>
Self Esteem Shop..... <http://www.selfesteemshop.com/>

The Ungame, by Talicor, is a family board game that promotes communication and pro-social skills in a non-competitive style. While it looks like a game, it's really not a game at all. The game encourages reflective and empathetic listening of all participants.

Websites

Adventure Therapy Web, Lee Gillis Publications

.....http://leegillis.com/AT/pubs_LG_03_2005.htm

Encouragement Zone, Terry Kottman.....<http://www.encouragementzone.com/>

Hand Model of the Brain, Dr. Daniel Siegel

.....<http://www.youtube.com/watch?v=DD-lfP1FBFk>

Kids Interactive Discovery Zone, Scott Riviere..... <http://www.kidzinc.com/default.asp>

Therapeutic Games, Alanna Jones

.....<http://www.gamesforgroups.com/therapeuticgames.html>

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