

DEVELOPMENT OF THE TRAUMA PLAY SCALE: COMPARISON OF CHILDREN  
MANIFESTING A HISTORY OF INTERPERSONAL TRAUMA

WITH A NORMATIVE SAMPLE

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Experts in traumatology have postulated traumatized children play differently than non-traumatized children. These differences are called posttraumatic play and include the behaviors of intense play, repetitive play, play disruption, avoidant play and negative affect. The purpose of this study is the continued development of the Trauma Play Scale through the addition of a normative sample.

The Trauma Play Scale is an observation-based instrument designed to distinguish the play behaviors of children in play therapy with a history of interpersonal trauma when compared to non-traumatized children. The present study compares two samples of children. One group ( $n=6$ ) currently in play therapy with a history of interpersonal trauma and another group ( $n=7$ ) considered normally developing (cognitively, emotionally, socially, and physically) by their parents with no known history of interpersonal trauma. Trained raters blind to the trauma history of the children rated a series of eight consecutive video-recorded play therapy sessions for each participant. One-way analysis of variance statistics, including effect sizes were compute to determine the discriminant validity of the Trauma Play Scale.

Traumatized children scored significantly higher on the Trauma Play Scale

than non-traumatized children on all domains of the scale as well as the overall Average Trauma Play Scale score. Large effect sizes indicated strong relationships between group membership (trauma history versus normally developing) and scores on the Trauma Play Scale.

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## CHAPTER 1

### INTRODUCTION

Children live in a world in which the possibility of experiencing traumatic events, including natural disasters, community and school violence, and abuse and neglect from family and significant caregivers, is far too common (Child Welfare Information Gateway, 1007; Dayton, 2000; Eth, 2001; Herman, 1992; James, 1989; Perry & Szalavitz, 2006; Terr, 1983). The word trauma alone can evoke thoughts of pain and terror in many people. Trauma may be acute, suddenly arising, as in a car accident, the loss of loved one, or a natural disaster; or it may be chronic, developing gradually, as in repetitive verbal, emotional and sexual abuse (Gallagher, Leavitt, & Kimmel, 1995). Trauma can affect people physically, as in lacerations, contusions, and broken bones; or psychologically through nightmares, anxiety, and depression.

Psychological trauma can be defined as an individual's response to an unexpected event, experienced intimately and forcefully (Everstine & Everstine, 1993), where in a person experiences the event as overwhelming and debilitating, resulting in feelings of danger, anxiety, and instinctual arousal (Eth & Pynoos, 1985). It is not the potentially traumatizing event that produces psychological stress, but the individual's personal reaction to the experience.

Negative effects of trauma on children and their development have been widely discussed (Briere & Scott, 2006; Eth, 2001; Eth & Pynoos, 1985;

Everstine & Everstine, 1993; Gil, 1998; Homeyer; 1999; James, 1989; Perry & Szalavitz, 2006; Terr, 1983; Van der Kolk, 1994; Webb, 2001). Children who have experienced trauma often need help to heal from these emotionally laden experiences. Child therapists have addressed the developmental, emotional, and physical impact of trauma on the lives of children (James; Gil; Terr). Perry and Szalavitz proposed that we cannot understand the effect of trauma on children outside the context of relationships, noting that the most traumatic aspect of any traumatizing event is the “shattering of human connections” (p. 231).

Dayton (2000) defined interpersonal trauma, or relationship trauma, as the rupture of relationship bonds, occurring when one’s trust or faith in a significant other is damaged through such experiences as physical, emotional, or sexual abuse or abandonment through death or separation. Similarly, James’ (1994, p. 7) concept of attachment trauma stressed the fundamentally important role significant relationships with parents and caregivers have on children. James believed these relationships, when healthy and intact, provide children with a protective factor. Conversely, when these significant relationships are impaired, children are deemed at greater risk of traumatization through neglect and abuse.

Play has long been recognized for its importance in the lives of children. In the 1700s, Rousseau (1762/1979) recognized the importance of play in the development of children in his philosophical treatise on the nature of man, *Emile, or On Education*. Experts in early childhood development, including Piaget (1962) and Erikson (1963), have long emphasized the developmental and

healing properties of play in children's lives. Because of the unique functions that play serves for children, play has been used by child therapists since the early 1900s. Play therapy is based on the notion that play is the natural medium of self-expression for children, providing them the means to self-heal by playing out their experiences (Axline, 1969; Landreth, 2002). The play therapist's empathy, genuineness, and unconditional acceptance of the child in play therapy facilitate the child's ability to express painful feelings and internal experiences through the symbolic nature of play (Axline; Landreth; Moustakas, 1955; Rogers, 1957/1991; Terr, 1983). The high degree of acceptance and understanding fundamental to the therapeutic relationship found in play therapy can free children to move toward greater self-acceptance and self-understanding (Allen, 1982; Axline; Landreth).

The role and potential of play in the diagnosis and treatment of children who have been traumatized has received support in recent years (Findling, Bratton, & Henson, 2006; Gil, 1998; James; 1989; Terr, 1991). Terr (1983) found that children who have experienced trauma exhibit distinct play behaviors which she termed as posttraumatic play. She described posttraumatic play as intense, compulsive, repetitive, literal (lacking *as-if*), and insufficient in relieving anxiety. Furthermore, she hypothesized that these play behavior qualities were unique to traumatized children.

Traumatizing events may occur at anytime, anyplace, placing anyone at risk of experiencing trauma, including children (Perry & Szalavitz, 2006). The

impact of trauma on children can disrupt their cognitive, emotional, and social development (Briere & Scott, 2006; Eth & Pynoos, 1985; Everstine & Everstine, 1993; (Perry & Szalavitz); Terr, 1983; Van der Kolk, 1994). Play is a natural part of childhood and childhood development (Ginsberg, Committee on Communication, & Committee on Psychosocial Aspects of Child and Family Health, 2007). Children learn about themselves, the world around them, and others through play (Landreth, 2002). Play of helps children to maintain strong parent-child bonds, providing children with protective factors (Ginsberg, et al.). A rupture to these child-parent bond increases the likelihood a traumatizing event may overwhelm the child's ability to cope (Christiano & Russ, 1996; Dayton, 2000). Play therapy provides children the opportunity to express their feelings and experiences, and to grow and heal from a traumatizing event, all within a supportive and accepting relationship (Allan & Lawton-Speert, 1993; Gil, 1998; Homeyer; 1999 James, 1989, 1994; Schaffer, 1994; Terr,; Van der Kolk,; Webb, 2001).

#### Statement of the Problem

McLean-Russell (1994) found a lack of empirical knowledge regarding play behavior characteristics of children with a history of trauma. Findling (2004) identified two major impediments to the empirical study of play behaviors of traumatized children:

First, current measurement instruments designed to assess the impact of trauma on children do not utilize methods that are responsive to the

developmental needs of young children; second, current measurement instruments designed to assess children's play therapy behaviors do not adequately address the unique play behaviors of traumatized children as they engage in play therapy (p.3).

To address these issues, the Trauma Play Scale (TPS), an observation-based assessment designed to measure play behaviors of children as they engage in play therapy, was developed and a pilot study was conducted to assess its psychometric properties (Findling, et al., 2006). In this study, play behaviors of clinically referred children in play therapy with a history of interpersonal trauma were compared with play behaviors of clinically referred children in play therapy with no known history of interpersonal trauma. Results suggested that the play behaviors of traumatized children differ from the play behaviors of children with no known history of trauma, and that these differences are in accordance with Terr's (1983) construct of posttraumatic play. However, the TPS lacks a normative or well-adjusted group for comparison and this lack of a normative group inhibits knowledge of the discriminant power of this instrument. Development of a normative sample seems a next necessary, appropriate and logical step in the construction process (Nelson, 1994; Cicchetti, 1994) of the TPS and is the goal of this study.

#### Review of Related Literature

Related literature is discussed in the following areas: a) play; b) play therapy; c) child-centered play therapy (CCPT); d) childhood trauma; e) play

therapy with traumatized children; f) play therapy research with traumatized children g) general play-based assessments; h) play-based assessments for use in play therapy; and i) play-based assessments of trauma play behaviors. This review is intended to provide an overview of the current knowledge in these areas and their relation to this study.

## *Play*

### *The Importance of Play*

The importance of play in the lives of children has been considered significant for centuries. In the 1700s, Rousseau (1762/1979) wrote about the essential role play has in the healthy development of children. Landreth (2002) described play as the central activity of childhood and the single most important means in which children learn about themselves, others, and the world around them. The importance of play in the lives of children is evident in its pervasiveness in childhood. A number of children's rights and health-oriented organizations have stressed the importance of play in childhood.

Smith (1956) (as cited in Bagley, 1975), past president of the World Federation for Mental Health, compiled nine basic needs of children, including that children need to be loved, need to feel respected and accepted, and need to play (p. 3). In article 31 of the Convention on the Rights of the Child, the United Nations Committee on the Rights of Children (United Nations General Assembly, 1990) proclaimed play as a universal and inalienable right of childhood, emphasizing the importance of play to the development and wholeness of

children. In addition, in article 13, it was emphasized that children have the right to express themselves through any media of their choice, including play.

In a recent report published by the American Association of Pediatrics (Ginsberg, Committee on Communication, & Committee on Psychosocial Aspects of Child and Family Health, 2007), the value of play in children's lives was emphasized:

Play allows children to use creativity while developing their imagination, dexterity, and physical, cognitive and emotional strength. Play is important to healthy brain development. It is through play that children at a very early age and interact in the world around them. Play allows children to create and explore a world they can master, conquering their fears while practicing adult roles, sometimes in conjunction with other children or caretakers. As they master their world, play helps children develop new competencies that lead to enhanced confidence and the resiliency they will need to face future challenges. Undirected play allows children to learn how to work in groups, to share, to negotiate, to resolve conflicts, and to learn self-advocacy skills. When play is allowed to be child driven, children practice decision-making skills, move at their own pace, discover their own areas of interest, and ultimately engage fully in the passions they wish to pursue. (p.3)

Play has been directly associated with the growth of a child's cognitive, affective, and social development (d'Heurle, 1979). Educators and child



development theorists widely recognize the importance of play in childhood (Baggerly & Landreth, 2001). Play is considered by many as the most developmentally appropriate learning strategy in working with children (Bredekamp; 1987; Erikson, 1963; Montessori, 1964; Piaget, 1952). Developmental theorist Erickson (1963) and experts in the field of child psychotherapy have stated that play is the language of childhood (Axline, 1964; Ginott, 1959, 1961; Guerney, 1983; Kottman, 1995; Landreth, 1987, 1993; Oaklander, 1988; Schaefer, 1994) through which children can communicate their feelings, thoughts, and experiences much as an adult might talk about theirs (Axline; Guerney; Landreth, 2002; Mader, 2000). Through play, children are provided a means to express what they are unable to say in words.

Landreth (2002) stated play is the means by which children come to understand the world around them and their place within that world. Children use play to explore their inner worlds and to express themselves. Children organize and communicate their experiences, feelings, and inner worlds through play. Through engaging in play, children learn to respect themselves, to take responsibility for their feelings, and to be creative in problem solving. Children commonly work out conflicts through play and metaphor (Damon, Todd, & MacFarlane, 1987), imagining and testing new possibilities and ways of being.

Play has a reality of its own as an activity in which children explore their identities in relation to others (Cattanach, 1992). Everything a child does in the playroom has meaning and significance to the child's frame of reference (Ginott,

1960). Everything a child is, does, and becomes, may at one time or another be demonstrated through play (Landreth, 2002).

### *Healing Properties of Play*

The recognition of the importance of play in the healing and growth of children is paramount for those who work with children (Caplan & Caplan, 1974). Erikson (1963) believed children have the capacity to find recreation and to self-cure when engaging in play. Landreth explained, “for children to ‘play out’ their experiences and feelings is the most natural dynamic and self-healing process in which children can engage” (Landreth, 2002, p.14). However, this natural capacity for healing can be significantly interrupted through trauma (Perry, et al., 1995). Play in a therapeutic setting is particularly useful with distressed and traumatized children, as they are more likely to express their innermost feelings and experiences through play rather than through verbalization (Mann & McDermott, 1983). Play therapy provides a safe environment for children to play out accumulated feelings of tension, frustration, insecurity, aggression, fear, bewilderment, and confusion (Axline, 1964), using toys to express emotions about their self-perceptions, about others, and about significant events they have experienced (Bratton, Ray, & Landreth, 2008).

### *Play Therapy*

Play therapy is a well-established therapeutic approach with a 60-year history of research (Bratton, et al., 2008) demonstrating its effects with a variety of presenting problems (Bratton & Ray, 2000). Ray (2006) provided a more

updated review of play therapy research, again showing its effectiveness with a variety of issues and populations. Bratton, Ray, Rhine, and Jones (2005) conducted a meta-analysis of 93 controlled play therapy outcome studies involving children and found an overall treatment effect of .80 standard deviations, considered a large effect (Cohen, 1988). This finding indicates that after receiving play therapy, children performed .80 standard deviations above children who did not receive play therapy. Meta-analytic results provide strong support for play therapy as an effective and developmentally responsive mental health treatment for children (Bratton, et al.).

The use of play in therapeutic work with children has its foundations almost one hundred years ago with Sigmund Freud's (1909/1973) treatment of Little Hans, a five-year old boy with a phobia of horses. Freud's treatment of Little Hans, involved training the boy's father in play-based analytic skills to be used at home. Hermaine Hug-Hellmuth (1921) was the first known therapist to use play herself in the diagnosis and treatment of children over six years of age, providing them with play materials in which to express themselves (Landreth, 1987; Pepe, 1991). In 1919, Melanie Klein (1955) began to employ the use of play in her work with younger children as a basis for interpretations. She believed that the play of children was the motivational equivalent of adult free association and would provide direct access to the child's unconscious. During this same time period, Sigmund's daughter, Anna Freud (1965) noted children lacked the cognitive development necessary to participate in free association and began to use play

to encourage the development of an alliance between herself and the child (p. 29). Anna Freud emphasized the importance of developing an emotional relationship with a child before interpreting the child's unconscious motivation behind the child's play (Landreth).

The psychoanalytic play therapy movement was followed by a more structured approach headed by David Levy (1938), Joseph Solomon (1938), and Gove Hambidge (1955). Levy developed 'release play therapy' in his work with children who experienced traumatic events. He believed children would release their tension and pain through the abreactive quality of play. Levy provided these children with very few toys, selected by him to help the child work through the emotionally charged traumatic event. Solomon's active play therapy was also developed on the abreactive properties of play. He supplied impulsive and acting out children with toys to play out their anger and fear. Hambidge's 'structured play therapy' expanded upon Levy's work, with the therapist playing a more direct role in the setup of the child's play. The therapist directly re-created the traumatic event in the child's life.

Following the structured approaches to play therapy was the relationship approaches to play therapy developed by Fredrick Allen (1934), Jesse Taft (1933), and Clark Moustakas (1955). Allen, Taft, and Moustakas emphasized the importance of the therapeutic relationship and focusing the therapy session in the here and now. This approach was based on the belief that a child, in a secure

therapeutic relationship, would feel free to explore and overcome interpersonal stress and presenting problems (Venter, 2006).

Operating from a person-centered perspective, Virginia Axline (1947) pioneered the next major movement in play therapy, incorporating the non-directive therapy principles of Carl Rogers (1957/1992) to her work with children in play therapy. Her approach emphasized the natural growth process of children as central to helping the child individuate and develop basic self-esteem (positive regard). Axline (1969) emphasized the importance in the therapist recognizing the child's feelings as expressed through the child's play and through the therapist's belief in the child's strengths and potential for growth and change. Axline's non-directive approach was further developed by Moustakas (1955), Guerney (1983), and Landreth (2002) into what is now more commonly referred to in the United States as Child-Centered Play Therapy (CCPT).

#### *Child-Centered Play Therapy (CCPT)*

Through CCPT, children are able to express their inner experience (Guerney, 1983; Landreth, 2002). Fundamental to CCPT philosophy is the belief that play is essential to the healthy development of children. Play gives concrete form and expression to a child's inner world. Children are able to give meaningful symbolic expression to emotionally significant experiences through play, transforming what may be unmanageable in reality into manageable situations.

CCPT is built upon a philosophy of attitudes and behaviors for living one's life in relationship with children. It is both a basic philosophy and an attitude of

deep and abiding belief in the ability of children to constructively self-direct their play in ways that are healing and significant to them (Landreth & Sweeney, 1997). The CCPT therapist believes deeply in and trusts implicitly the inner person and direction of the child. The play therapist's objective in a play therapy session is to relate to the child in ways that will release the child's inner directional, constructive, forward-moving, creative, self-healing power. When children genuinely experience this philosophical belief within the playroom, they are empowered and their developmental capabilities are released for self-exploration and self-discovery, resulting in constructive change (Landreth & Sweeney).

Axline (1969) clarified the nature of interaction between therapist and child in the child-centered approach in her eight basic principles that serve as a guide for therapeutic contact with the child (Landreth, 2002):

1. The therapist is genuinely interested in the child and develops a warm, caring relationship.
2. The therapist experiences unqualified acceptance of the child and does not wish that the child were different in some way.
3. The therapist creates a feeling of safety and permissiveness in the relationship so the child feels free to explore and express self completely.

4. The therapist is always sensitive to the child's feelings and gently reflects those feelings in such a manner that the child develops self-understanding.
5. The therapist believes deeply in the child's capacity to act responsibly, unwaveringly respects the child's ability to solve personal problems, and allows the child to do so.
6. The therapist trusts the child's inner direction, allows the child to lead in all areas of the relationship and resists any urge to direct the child's play or conversation.
7. The therapist appreciates the gradual nature of the therapeutic process and does not attempt to hurry the process.
8. The therapist establishes only those therapeutic limits that help the child accept personal and appropriate relationship responsibility.

Practitioners of CCPT believe play therapy facilitates growth and healing in children for several reasons. First, CCPT is an approach responsive to the developmental needs of children and provides natural opportunities for growth, mastery, and healing (Landreth, 2001; Landreth & Bratton, 1998; Moustakas, 1955). Second, the symbolic nature of play provides children with a safe and less-threatening mode of expressing their painful feelings, thoughts, and experiences (Axline, 1947; Bratton, et al., 2008; Moustakas; Landreth). Finally, the therapeutic relationship formed within the context of play therapy provides children with a caring environment characterized by unconditional acceptance

and understanding. Children are freed through the experience of this relationship, enabling them to move towards greater self-acceptance, self-esteem, and self-understanding (Axline, 1969; Landreth).

### *Developmental Responsiveness*

Child therapists must approach, understand, and treat children from a developmental perspective (Landreth, 2002; Moustakas, 1955). CCPT is a therapeutic approach to working with children that is responsive to the developmental needs of children (Axline, 1969; Bratton & Ray, 2002; Findling, et al., 2006; Gallagher, Leavitt, & Kimmel, 1995; Guerney, 1983; Landreth; Moustakas; Sweeney, 1997; Terr, 1981), providing significant opportunities for growth, mastery and healing (Bratton, et al., 2008).

Play therapy is based on the developmental understanding of Piaget's (1962) theory of cognitive development. Piaget recognized children and adults differ in how they understand, process, and communicate information. Sweeney (1997) stated adult therapy depends heavily on the formal operations of Piagetian development and by its very nature is abstract and sophisticated, whereas the communication of children is concrete and simple.

Children in Piaget's (1962) Preoperational Stage (two through seven years of ages) are in a process of acquiring language, or the use of words to symbolically represent mentally images, but still lack the ability to verbally communicate their experiences to the world around them (p. 278). Preoperational



children use play as their primary way to communicate their internal awareness of self and others.

The nature of the play of children is fundamentally preoperational (Ray, Armstrong, Warren, & Balkin, 2005). Play and language are contrasting forms of representation of an individual's thoughts, feelings, and experiences. When a therapist insists a child communicate cognitively and verbally, the therapist, in essence, is asking the child to translate symbolic experiences into the therapist's accepted medium of communication. This is akin to asking adults possessing only rudimentary knowledge of Spanish to share their deepest emotions, inner thoughts, and intimate experiences solely in Spanish. Play and fantasy do not carry this limitation, bridging the gap between a child's concrete experience and the therapist's abstract world (Webb, 2001), enabling children to create and communicate freely and naturally.

Children open windows to their inner experiences through their play. Piaget (1962) described the processes of assimilation and accommodation as being integral components in the cognitive development of children. Children use assimilation as a process of mental digestion, taking in and processing information from their environments and developing mastery over the knowledge or tasks experienced. Children use accommodation when taking in new information through experimental interaction with their environments. The symbolic nature of the play of children develops through the interactions of assimilation and accommodation. As children engage in representational

thought, the processes of assimilation and accommodation become dissociated and from the distortion, make-believe play emerges. The development of imagination in children is initiated through their experiences of the world around them.

Erikson (1963) further supported the developmental appropriateness of play in the lives of children. Erikson believed play had an integral role in the personality development of children. He stated “Play...is a function of the ego, and attempt to synchronize the bodily and the social processes with the self” (p. 211). Through play, children are able to move forward to new stages of mastery, integrating the ego needs of trust, autonomy, and identity within their social environment. Play is the human ability of children to experience and master the world around them through experimentation and planning. Erikson stated that “to ‘play out’ is the most natural self-healing measure childhood affords” (p. 222).

Therapists who understand the importance of play in the lives of children, and that children naturally communicate through play are well on their way to understanding the world of children. To be most effective and facilitative in the growth and healing process of children, therapists need to be responsive to the intellectual, emotional and social developmental level of children (Landreth & Sweeney, 1997).

### *Symbolic Nature*

Leading authorities (Freud, A., 1965, 1945/1964; Axline, 1947; Moustakas, 1955; Landreth, 2001, 2002) consider the symbolic nature of play to

be one of the core healing elements of play therapy, enabling children to express their feelings, reactions, and perceptions naturally through their play. In, *Play Therapy*, her hallmark book on non-directive play therapy, Axline stated, “The child’s play is symbolic of his feelings” (p. 98). Ginott (1960) further emphasized “play is the symbolic language of self expression” (p. 242). Through the use of toys, or symbols, children are able to express more thoroughly how they feel about themselves, other people, and the events around them. Ginott believed children use symbols to represent their interests, fantasies, anxieties, and guilt regarding significant people in their lives onto objects. These projections provide children with the necessary distance to confront emotionally laden topics.

Landreth (2001) proposed that children experienced a sense of security through the use of symbolism in play. He stated that “children communicate their unconscious feelings through play and utilize toys and materials as symbols to express the feelings of which they may not be aware at that time” (p. 8-9). He believed children use symbolic play to express their emotions in a safe and controlled manner. The symbolism children attach to the toys and to their play disguises the direct emotions or target of emotions they are expressing (Landreth). Children use this symbolism to shield themselves from the intensity of their feelings, enabling them to indirectly express feelings and experiences otherwise too overwhelming to be expressed directly.

Children symbolically play out themes of their inner worlds and experiences (Cockle & Allan, 1996). The process of change and movement in

children's play themes represent "the growth, empowerment and healing of the child" (p. 34). Through the process of circumambulation, children in play therapy symbolically approach painful issues, moving closer to resolution and integration with each session of meaningful play. It is through the symbolic nature of play that children are able to create the necessary therapeutic distancing from their painful feelings and traumatic experiences to engage in healing and growth (Ater, 2001; Benveniste, 2005; Mann & McDermott, 1983).

Terr (1990) stated that play is "the most potent way to effect internal changes in young, traumatized children." Children are able to work through problems indirectly while maintaining a safe distance, being to face the emotion or experience without seeing it as theirs. The problem "belongs to the 'princess' or the 'dinosaur' or the 'Godzilla' or the 'starship,' not to him." (p. 299).

### *Therapeutic Relationship*

Several historic figures in play therapy have written about the therapeutic relationship between child and therapist being the core healing dimension of play (Allen, 1939; Axline, 1947, 1969; Bratton & Ray, 2002, Ginott, 1960; Moustakas, 1959; Landreth, 2001, 2002).

Rogers (1957/1992) believed significant change only occurs within the context of a relationship and that the relationship is the catalyst for therapeutic change. Rogers viewed three core conditions as necessary and sufficient for therapeutic growth: congruence, unconditional positive regard, and empathy. Congruence is the therapist's awareness of self and the ability to be genuine with

his own feelings, enabling the therapist to become integrated in the relationship. Unconditional positive regard is the therapist's total acceptance of the client, a genuine caring concern for the person of the client. Empathy is the therapeutic ability to "sense the client's private world as if it were the therapist's own" (p. 99).

Allen (1939), although predating the child-centered movement he shared many beliefs of CCPT. He believed the relationship between the play therapist and the child to be the keystone of play therapy. Children relate to others best through play. Play therapists create an accepting environment, facilitating growth within children, allowing them to grow in their own ways. Through these new experiences formed in the therapeutic relationship, children can increase their levels of self-understanding and self-acceptance.

Axline (1950) defined play therapy as "a play experience that is therapeutic because it provides a secure relationship between the child and the adult, so that the child has the freedom and room to state himself in his own terms, as he is at that moment in his own way and in his own time" (p. 47). Play therapy provides the child with a safe place "to try out his self, to state his self through the medium of his play, and, by so doing, learns to know that self a little better, and, by that increased self-knowledge, to utilize his capacities in more adequate ways" (p. 47). Axline believed that through providing children with the core conditions of an accepting relationship, children are able to become free in their self-expressions and free to grow.

Moustakas (1959) also believed the therapeutic relationship to be central to a humanistic approach to play therapy. Moustakas (1973) stated the play therapy relationship “enables children to grow emotionally and to gain faith in themselves as feeling individuals” (p. 2). Moustakas (1959) believed that the therapist’s focus on immediate and live interactions within the relationship facilitates growth within the child. The child and therapist, meeting in full harmony within the relationship, experience full human expression and depth (Moustakas, 1966). It is through the therapeutic relationship that children are able to affirm their real selves by restoring the power of their individual natures (Moustakas, 1959).

Landreth (2002) stated the Rogerian (1957/1992) conditions of genuineness (being real), unconditional positive regard (warm caring and acceptance), and empathy (sensitive understanding) are central to facilitating the release of the child’s inner resources for growth (p. 70). Landreth believed children are not free to change “until they experience a relationship in which their subjective experiential world is understood and accepted” (p.75). Landreth stated CCPT therapists strive to communicate to the child four basic messages, “I am here, I hear you, I understand, and I care.”

The purpose of play therapy is to help children through the medium of play in the context of a therapeutic relationship. Fundamental to CCPT is the facilitative process of the child-therapist relationship. It is through the natural childhood activity of play that the play therapist is able to develop a sense of

connection, of understanding between the child and the therapist (Landreth, 2002). Through play, therapists are able to understand children deeply and to facilitate self-acceptance through the therapeutic relationship (Landreth & Sweeney, 1997). The therapist's ability and willingness to speak in the child's language conveys a respect for the child that the child may never have experienced previously. By being fully present with the child, the therapist is able to enter into and learn about the child's world. "For children to 'play out' their experiences and feelings is the most natural dynamic and self-healing process in which children can engage" (Landreth, p.14).

### *Childhood Trauma*

Children live in a world where the possibility of experiencing trauma is very real. Trauma may be a single event, such as witnessing violence or experiencing an injury, or it may be the accumulation of interactions, which in total, are traumatic (James, 1989). However, not every trauma event or events is traumatizing to every person. Each human being is unique, with a different set of experiences, triggers, coping mechanisms, and support systems.

The term trauma is derived from a Greek word, τραῦμα, meaning injury or wound (Webster's Dictionary, 1926). Trauma can refer to either physical or psychological injury. Psychological trauma is an individual's response to an unexpected event, experienced intimately and forcefully (Everstine & Everstine, 1993). James (1989) stated psychological trauma "refers to overwhelming, uncontrollable experiences that psychologically impact victims by creating in

them feelings of helplessness, vulnerability, loss of safety, and loss of control” (p.1). These traumatic events can cause people to question their beliefs about themselves, others, and relationships, or in the case of very young children, can influence the forming of their beliefs (James, 1994; Perry, Pollard, Blakely, Baker, & Vigilante, 1995). Herman (1992) stated that traumatic events “overwhelm the ordinary human adaptations to life” (p. 33). These traumatic events are experienced as extremely upsetting and overwhelming to the internal resources (Briere & Scott, 2006; van der Kolk & Fislser, 1995), resulting in feelings of danger, anxiety, and instinctual arousal (Eth & Pynoos, 1985).

#### *Prevalence and Impact of Childhood Trauma*

At least 40 % of all American children will experience at least one traumatizing experience by the age of 18 years (Perry, 2001b). In 2005, United States child protective agencies received an estimated 3.3 million reports of child abuse or neglect involving approximately six million children with an estimated 899,000 cases confirmed (Child Welfare Information Gateway, 2007). These numbers do not reflect unreported incidents. One in eight children under the age of 17 has been found to have suffered some form of serious maltreatment from adults (Finklehor, Ormrod, Turner, & Hamby, 2005). In one study that focused on adults, 27 percent of women and 16 percent of men reported having been sexually victimized as children (Finklehor, Hotaling, Lewis, & Smith, 1990). Annually, an estimated 10 million American children are exposed to domestic violence, and four percent lose a parent to death (Strauss, 1992). An estimated



one in three abused children will develop some psychological difficulties as a result of the maltreatment (Perry & Azad, 1999). Moderate estimates suggest that more than eight million American children experience serious, diagnosable, trauma-related mental health problems (Perry & Pollard, 1998).

Traumatic experiences can rupture an individual's sense of predictability and invulnerability, profoundly altering the way the person deals with their emotions and the environment in the future. These experiences can result in an individual's basic assumptions about life being "shattered." (Van der Kolk, van der Hart, & Burbridge, 1995). Van der Kolk, van der Hart, & Burbridge outlined several psychophysiological responses to traumatic events, including intrusive re-experiencing, autonomic hyperarousal, numbing of responsiveness, intense emotional reactions, sleep problems, learning difficulties, memory disturbances, dissociation, aggression against self and others, and psychosomatic reactions. Children who have experienced trauma lack the flexibility, fluidity, and spontaneity normally found in nontraumatized children (Cohen, Mannarino, & Rogal, 2001).

Janet (as cited in van der Kolk & van der Hart, 1989) developed the concept of dissociation in his book *L'automatisme psychologique* (1899). Janet believed dissociation occurred when traumatic experiences did not fit with an individual's existing cognitive schemas. As a result, memories of these experiences could split off from conscious awareness, showing up later in unintegrated fragments. He believed it was necessary for individuals to

assimilate this dissociated memory for recovery.

Trauma is personal and contextual (James, 1994). An event that may be traumatizing or overwhelming for one child may be within another's ability to cope. James (1989) believed it is important for the therapist to evaluate the event from the child's experience and perspective.

The child's constitution, temperament, strengths, sensitivities, developmental phase, attachments, insight, abilities; the reactions of his loved ones; and the support and resources available to him, all contribute to how an event is experienced, what it means to the child, and whether or not it is traumatizing at that specific time in the child's life (James, 1989, p. 1).

James (1994) also stated children with secure attachments with caregivers are better equipped to cope with trauma than children who have insecure attachments with caregivers.

Psychological trauma in children is "the mental result of one sudden, external blow or a series of blows rendering the young person temporarily helpless and breaking past ordinary coping and defensive operations" (Terr, 2003, p. 323). Terr postulated that children respond to trauma in one of four ways: (1) intense and repetitive thoughts of the trauma; (2) reenactment of the trauma; (3) fear highly correlated to the traumatic event; and (4) a sense of futurelessness (p. 324).

### *Trauma within a Developmental Framework*

Childhood trauma can profoundly affect the development of children, including identity formation, cognitive development, physical health, emotional functioning, social skills, and the ability to trust self and others (James, 1994; Perry, et al., 1995; Drewes, 1999).

How a child experiences trauma changes as the child grows older (Miller & Boe, 1990). Childhood is a period of rapid emotional and cognitive development and hence children are more vulnerable to developmental disturbance. The earlier the traumatic experience occurs, the more damaging the effect of the experience is on the child (Perry & Szalavitz, 2006). Children also possess a crucial need for interactive attachment with a significant caregiver.

Most CCPT therapists strongly agree that child mental health service personnel need to be responsive to the developmental level of children in both assessment and in treatment (Bratton, et al., 2008; Bratton, et al., 2005). Many experts in trauma believe a reciprocal relationship exists between trauma and a child's developmental level (James, 1989; van der Kolk, 1994; Shelby, 1999; Shelby & Felix, 2005). Impact of trauma on development can occur on many different levels, including cognitive development (Barahal, Waterman, & Martin, 1981; Perry & Pollard, 1998), and emotional development (James, 1989; Shelby & Felix).

Trauma affects children holistically (Findling, 2004). The effects of trauma can permeate all areas of healthy childhood development and negatively impact

the lives of children in the present and in the future. It is important to consider the developmental level of a child in treatment (Drewes, 1999). Being familiar with the developmental aspects of the play of children and how children confront problems help in differentiating between well-adjusted and maladjusted behaviors.

Children are relational beings. When intimate relationships of children are severed through traumatic events, they experience a loss of safety, trust, and value (Perry & Szalavitz, 2006). The psychological trauma recovery for children needs to include the rebuilding of trust, regaining of confidence, returning to a sense of security, and reconnecting to love (p. 231-232). As a review of the research has demonstrated, the impact of trauma can negatively affect children in many areas and in different ways. The question is how to determine whether an event has been traumatizing to a child, the degree of impact of that trauma on the child, and whether the treatment provided would be effective. The need for assessment instruments that are responsive to the developmental needs of children is evident.

“When people are traumatized, they are said to experience “speechless terror”: [*sic*] the emotional impact of the event may interfere with the capacity to capture the experience in words or symbols” (Van der Kolk, 1994, p. 6). “Trauma can only be worked through when a secure bond is established with another person” (Van der Kolk, van der Hart, & Burbridge, 1995, p. 11). The interference of trauma on verbal expression, and the need to work through trauma within a

caring relationship, supports play therapy as a viable treatment modality for therapeutic work with traumatized children.

### *Play Therapy with Traumatized Children*

As outlined earlier, there are a variety of theoretical approaches to play therapy, each with their own unique set of tenets regarding the needs of children. In this section play therapy with traumatized children will be reviewed.

Sigmund Freud (1909/1973) initially believed the roots of psychiatric problems were grounded in early childhood trauma. Anna Freud (1965, p. 128) postulated that the experience of traumatic shock may lead to temporary or permanent regression in the personality of children. She stated that incidents such as “anxiety-arousing internal or external events, separations, or severe disappointments in the child’s love objects” may lead to such trauma-induced regression. Anna Freud (p. 139) believed a child’s traumatic experience needs to be evaluated from the perspective of the child.

Levy (1938) developed release play therapy in his work with traumatized children. He believed children release the tension and pain associated with trauma through abreactive quality of play. Levy would preselect a few toys he felt would recreate the traumatizing experience for the child. He believed the role of the therapist was not to interpret the child’s play but to set conditions in which the child could confront the trauma and gain control of the experience.

Mann and McDermott (1983) promoted the use of play therapy as an effective approach to working with children with a history of severe neglect and

abuse. They stated the goal of play therapy with these children is to help them “master the multiple stresses of abuse and neglect and to correct or prevent deviations in future psychosocial development” (p. 285). Mann and McDermott postulated children have individual ways of coping with trauma, but did identify four commonly used ways children cope with trauma: (1) fear of physical assault or abandonment, leading to depression and anxiety; (2) failure to meet parents’ distorted expectations, leading to over-dependency, and poor self-esteem; (3) difficulty achieving separation and autonomy; and (4) anxiety and ambivalence over attachment to adult caregivers. In their work with children who had been severely abused and neglected, Mann and McDermott identified four phases of treatment: Phase I - establishing rapport and learning how to play; Phase II – regression and abreaction of the trauma; Phase III – the testing of the relationship, developing impulse control and self esteem; and Phase IV – termination.

In her observations of traumatized children, Terr (1983) identified certain play characteristics she called posttraumatic play, describing this play as repetitive, or grim, devoid of the pleasurable feelings non-traumatic play possess. Terr also described posttraumatic play as being so intense that the child’s ordinary coping skills are insufficient to prevent the child from feeling overwhelmed by pain and anxiety. Some of the characteristics of posttraumatic play include compulsive repetition, unconscious link between play and the trauma, literalness of play with simple defenses, and failure to relieve anxiety.

Terr (1981) described their play as having a secret, ritualistic, and driven quality to it. Building upon Terr's (1981, 1983) observations and treatment of traumatized children, James (1989) believed these children can become stuck in repetitive play. For these children to move forward, overcoming overwhelming fears and developing an internal sense of power, therapists need to provide guidance and direction.

From a Jungian perspective, Mills and Allan (1992) examined attachment research as it applies to the screening, treatment, and management of relationship problems in young children. They stated children with an early relationship with a parent or caregiver that was "inconsistent, abusive, neglectful, or frustrating, and has not met the infant's needs" (p. 2) develop insecure attachment patterns. These children view themselves negatively, as being unworthy and unlovable. Believing a child's early attachment strongly effects the child's developing sense of self and relationships with others Mills and Allan outlined a model of play therapy sensitive to attachment. Within this model, children are able to "reenact the trauma that he or she dare not discuss or question at home for fear of losing the only caregiver he or she knows" (Mills & Allan, p. 6). The stated goals of this four-stage model are twofold:

(a) to help the child bring early trauma experienced through maltreatment or breaks in attachment to the play experience ... so they can be worked through rather than acted out; and (b) to rework through the therapeutic relationship the child's maladaptive internal models of self and self in

relation to others (p. 7).

In the first stage, the play therapist facilitates the development of a therapeutic relationship in which the child feels safe to explore the child's inner experiences. During this stage, children begin to express their pain through symbolic representation and regressive behavior congruent to their developmental level at the time of the maltreatment. Play "allows the child a safe distance to work without retraumatization" (Mills & Allan, p. 6). The second stage is characterized by the child testing the limits of the therapeutic relationship. Mills and Allan believed children move to this stage as they feel safe and accepted by therapist and they begin to lower their defenses and their "natural intrinsic growth tendencies fire" (p. 11). Mills and Allan described the third stage as the working stage of the model. Children engage in less symbolic play and become more relational, using transference to work through relationship issues previously too painful to confront. The final stage is consolidation and termination. Children spend more time engaging in creative or reciprocal play or talking about issues.

Shelby and Felix (2006) proposed an integrated model of directive and nondirective approaches to working with children who have experienced trauma, called posttraumatic play therapy. In this model, therapists first identify the child's predominant symptom (i.e., intrusive reexperiencing, dissociation, loss of social competence, traumatic grief, etc.) and then using a flowchart, recommended interventions and suggested readings are listed.



Gil (2006, p. 3-4) stated that because for the individuality of clients, she believed therapists should work from multiple theories and approaches. Gil uses an integration of expressive therapies (like play) to engage children who are nonverbal and acutely resistant with cognitive behavioral therapy for verbal children who are developmentally able to engage in this approach. Gil believed that children do not live in a vacuum, and that it is important to work systematically with the family.

Vanfleet and Caparosa (2003) further recognized the benefit of working with the entire family. Filial therapy empowers parents as agents of therapeutic change through training them in the basic principles of CCPT. Because trauma affects the entire family, the authors proposed six adaptations for working with families of traumatized children. First filial therapy helps parents with their own posttraumatic reactions. Second, play therapy can be used in conjunction with filial therapy as the parents begin training. Third, parents should be educated on the impact of trauma on themselves, their children, and their families. Fourth, parents should be prepared for trauma-related play through a mock trauma play session. Fifth, parents should be educated about childhood development and how to talk with their children about facts and feelings. Finally, parents should be prepared for difficult play sessions, to allow their children to play out potentially uncomfortable reenactments of trauma, while remaining accepting of the child. In addition, parents may filial therapy provides parents the opportunity to immediately discuss and process their reactions and feelings after difficult play

session.

Guernsey (1983) stated, "More so than any other play therapies, client-centered play therapy grants the individual the freedom to be himself or herself without facing evaluation or pressure to change" (p. 21). This freedom to be oneself and take responsibility for one's own growth and healing offers children the ability to differentiate. Guernsey believed CCPT, the therapeutic relationship, and the medium of play work together to meet the emotional needs of all children as they experience them.

Landreth (2002, p 54-55) developed ten basic tenets for relating to all children, expanded from Axline's (1947, p 73-74) original eight. Landreth's fourth tenet, that children are resilient, exemplifies the belief that children are able to recover from trauma. The fifth tenet, that children have an inherent tendency toward growth and maturity, speaks to the belief that children possess the innate ability to heal. The sixth tenet, that children are capable of positive self-direction, and the ninth tenet, that children will take the therapeutic experience to where they need to be, stresses the belief that children will address their issues in the order most conducive to growth and healing when provided a safe environment with a caring adult. The child-centered play therapist trusts in the child's self-protective and self-enhancing inner wisdom. CCPT therapists have a deep and abiding faith that all children possess an innate inner capacity to integrate unique life experiences in a way that enhances growth. This belief applies equally to children who have experienced trauma (Findling, 2004).

### *Play Therapy Research with Traumatized Children*

*Case study research.* Allan and Lawton-Speert (1993) described working with a boy with a history of trauma, severe neglect and sexual abuse. The authors treated the child from a Jungian play therapy approach, based on the strong belief that “the psyche knows how to heal itself and that children ‘go to where they need to go to’ in their play” (p. 47). Allan and Lawton-Speert described the child’s play as seeming intense and highly sexualized. This is congruent with Terr’s (1983) description of the intense, ritualistic quality of posttraumatic play. Through treatment, the child’s play therapy behavior became more relaxed, less sexualized, and less conflict-ridden.

Cockle and Allan (1996) examined the use of symbolic play in their treatment of a six-year old girl who had been sexually abused. The authors described their approach as a “child-centered, Jungian play therapy approach” (p. 32). Cockle and Allan stressed the importance of the relationship as being fundamental to the treatment. The authors reported the child symbolically played out her emotional needs and expressed the pain of her experiences. Cockle and Allan described the child’s play as being “very intense and completely absorbed” (p. 38). This again is descriptive of Terr’s (1993) description of intense, posttraumatic play. Cockle and Allan reported that through being able to play out past trauma, the child became free of her negative feelings and healed. This case supports the belief (Findling, 2004) that the play of traumatized children is different from those with no known trauma history.

Terr (2003) described her work with a 12-year old girl who had been severely traumatized. Terr is recognized as the originator of the construct of posttraumatic play (Terr, 1981, 1983, 1988, 1990; Gil, 1991; James, 1994; Schaefer, 1994). Terr conceptualized the child through her understanding of Infantile Posttraumatic Stress Disorder. Through her extensive work with traumatized children, Terr conceived three principles central to her work with these children: “abreaction (full emotional expression of the traumatic experience), context (understanding and gaining perspective on the experience), and correction (finding ways personally or through society to prevent or repair such experiences)” (p. 1403). Terr stated, “...in the end a traumatized child should conceptualize the corrective solutions for himself” (p. 1403). This statement is evidence of her belief that children must play an active role in their own healing processes.

*Descriptive research.* Frick-Helms (1997) examined the play behaviors of 24 children of battered mothers in CCPT. Frick-Helms found the characteristics of the play behaviors of these children to be congruent with the defining characteristics of Posttraumatic Stress Disorder (PTSD) (DSM-IV TR; American Psychiatric Association, 2000). Frick-Helms reported several of these children displayed speech and language disorders and symptoms of increased arousal and aggression. The play of the children was seen as being repetitive and driven in a literal nature that seemed to be trauma-related reenactments. Frick-Helms stated therapists working with “children and families should be alert to symptoms

of trauma” (p. 87).

McLean-Russell (1994) examined the correlation between specific, detectable indicators in the free play of 75 school-age children with the amount and severity of traumatic stress experienced. McLean-Russell noted childhood traumatic stress has a profound effect on children emotionally, physically, and intellectually, contributing to depression, anxiety, aggression, and hyperactivity in children. McLean-Russell stated the response to traumatic stress is different for children as compared to adults. Examiners engaged children in a two-part play session. The first part was a cooperative block-building task with the examiner; the second was a 25-minute free play assessment. Researchers examined the children’s free play using the Russell Inventory of Stress for Children (RISC; McLean-Russell), developed for this study. Raters were trained to review the tapes and manually define and describe each play behavior. McLean-Russell found four characteristics: (1) boys with higher levels of traumatic stress were less inhibited, more expressive, and less cooperative in their play, (2) girls with higher levels of traumatic stress did not demonstrate this characteristic, (3) family environment had a significant impact on negative play behaviors related to traumatic stress, and (4) children who repetitively experienced traumatic stressors or experiences of abuse exhibited more disrupted and less expressive play than children with fewer stressors or no history of abusive experiences.

*Quasi-experimental and experimental research.* The witnessing of domestic violence often results in the breaking of trust with a parent or caregiver,

making domestic violence a form of interpersonal trauma. In an outcome-based study, Kot, Landreth, and Giordano (1998) studied the effectiveness of short-term, intensive (every day for two weeks) CCPT with child witnesses of domestic violence as compared to a control group. Kot, et al. reported a significant increase ( $p < .01$ ) in the Self-Concept scale in the experimental group as compared to the control group as measured using the Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST; Joseph, 1979). Kot, et al. also found significantly lower scores on the Total Behavior Problems scale ( $p < .01$ ) and on the Externalizing Behavior Problems scale ( $p < .05$ ) on the Child Behavior Checklist (CBCL; Achenbach, 1986) with the experimental group as compared to the control group. Kot, et al. found CCPT to be an effective treatment intervention for children who have lived through the interpersonal traumatic experience of witnessing violence within the home.

Tyndall-Lind, Landreth, and Giordano (2001) investigated the effectiveness of intensive (12 sessions over 12 days) sibling group play therapy with children residing in a domestic violence shelter. Tyndall-Lind, et al. reported significantly ( $p < .001$ ) higher scores with the experimental group as compared to the control group in self concept as measured by the JPPSST (Joseph, 1979). Tyndall-Lind, et al. also reported significant lower scores on the Total Behavior Problems ( $p < .05$ ), Externalizing Behavior Problems ( $p < .01$ ), and Internalizing Behavior Problems ( $p = .058$ ) scales in the CBCL (Achenbach, 1986). Tyndall-Lind, et al.'s study further supported the effectiveness of CCPT with children who

have a history of interpersonal trauma.

Smith and Landreth (2003) explored the effectiveness of intensive (12 sessions over two to three weeks) filial therapy with child witnesses of domestic violence while residing in a domestic violence shelter. Filial therapy is a form of play therapy wherein parents or caregivers are trained to conduct therapeutic play sessions with their child, under the guidance of a play therapist (Bratton & Ray, 2000; Landreth, 2002; Landreth & Bratton, 2006). In this study, the researchers adapted Landreth's (2002) 10-week filial therapy model for use in a short time span. Smith and Landreth reported the children in the treatment group showed significant increase ( $p=.042$ ) as compared to the control group as measured on by the JPPSST (Joseph, 1979). These children also showed significant lower scores on the Total Behavior Problems ( $p=.007$ ), Externalizing Behavior Problems ( $p=.001$ ), and Internalizing Behavior Problems ( $p=.021$ ) scales in the CBCL (Achenbach, 1986). Using the same measures of self-concept and problem behaviors as Kot, et al. (1998) and Tyndall-Lind, et al. (2001), Smith and Landreth conducted a comparative analysis of the effectiveness of intense filial therapy, intensive individual play therapy, and intensive sibling group play therapy. Results of this supported the effectiveness of intensive filial therapy as comparable to that of intensive individual play therapy and intensive sibling group play therapy.

Costas and Landreth (1999) examined the effectiveness of a 10-week filial therapy training model as an intervention with 26 children who have been

sexually abused and the nonoffending parent. Filial therapy is a didactic/dynamic approach used by play therapists to train parents to become therapeutic agents of change with their children. Using a pretest-posttest design, Costas and Landreth found parental acceptance to be significantly higher with the experimental group on the Porter Parental Acceptance Scale (PPAS) and parental empathic behavior on the Measurement of Empathy in Adult-Child Interactions (MEACI), and significantly lower scores in parental stress on the Parenting Stress Index (PSI).

Scott, Burlingame, Starling, Porter, and Lilly (2003) examined the effects of individual client-centered play therapy on the mood, self-concept, and social competence of 26 children who had been sexually abused. Scott, et al. reported post-test scores on the JPPSST (Joseph, 1979) significantly decreased on the Competence subscale, indicating children had fewer problems with feelings of competency. However, Scott, et al. reported no significant change was reported by parents in either direction on the Behavioral Assessment System for Children-Parent Rating Scale (BASC-PRS; Reynolds & Kamphaus, 1992). The researchers found the group of children within the study that showed the least improvements were those abused by a family member or non-custodial parent, supporting the negative effect of interpersonal trauma. A limitation of this study is the lack of a control group. Researchers indicated a need for clinically sensitive instrumentation to changes in children's behavioral and emotional adjustment.



### *General Play-Based Assessments*

The field of child development has had great influence on the development of play-based assessments (Farmer-Dougan & Kaszuba, 1999; Russ, 2004). A brief review of some of these measures follows.

#### *Infant Behavior Record*

Matheny (1991) stated that the play of children can be utilized to calibrate their “developmental trajectory towards adulthood” (p. 39). Matheny studied the play of children during prescribed temperament visits and noted individual differences in expressive and emotive behavior. These visits lasted about three hours, of which 60 minutes would be videotaped. Based on his observations, Matheny refined and expanded the Infant Behavior Record (IBR; Bayley, 1969), a play-based measurement of temperamental differences among very young children. He believed temperamental differences in children could be discovered at an early age because temperament has a strong biological component. Matheny believed that the play behavior of children provides a “perspective on behavior in other ‘real-life’ contexts” (p. 61).

#### *PLAY Observation System*

Farmer-Dougan and Kazuba (1991), noting a lack of standardization of play-based assessments, developed the PLAY observation system. The PLAY observation system is an observation-based instrument designed to measure the cognitive and social skills of children in play skills. Following a standardized manual, trained observers videotaped and rated the individual play behaviors of

42 pre-school children in free play and in circle time sessions. The children's play was observed and scored in a hierarchy of sophistication from subordinate to superordinate classifications. According to Farmer-Dougan and Kazuba, significant positive correlations with the Battelle Developmental Inventory (BDI; Newborg, Stock, Wnek, Guidubaldi, & Svinicki, 1984) and the Social Skills Rating Scale-Teacher Form (SSRS-T; Gresham & Elliot, 1990) demonstrated strong validity for the PLAY. This study found a strong positive correlation between the level of a child's play behaviors and the cognitive and social development of the child (Farmer-Dougan & Kazuba). Although the PLAY is developmental responsive to the natural expression of children, play, it is limited in its use to social interaction with other children. This limitation makes the PLAY appropriate in assessing the play behaviors of children engaged in individual play therapy.

#### *Mayes Hyperactivity Observation System*

Mayes (1991) designed the Mayes Hyperactivity Observation System (MHOS) to evaluate the hyperactivity in preschool children under standardized free play conditions. The MHOS uses a clinically controlled procedure following standardized conditions to minimize confounding variables. Children are engaged in free play for a 10-minute session with an observer watching within the playroom. The observer codes the child's behavior every 10 seconds. Later the observer codes the child's behavior by locomotion and activity (adaptive play, sensory inspections, nonadaptive play, social interaction, reaching for and arranging toys, and no material activity). Mayes reported the Total Movement

score on the MHOS for the experimental group, hyperactives, was significantly higher ( $p < .001$ ) than the control group. The interobserver reliability of the MHOS was found to be high, at 97%.

### *Transdisciplinary Play-Based Assessment*

The Transdisciplinary Play-Based Assessment (TPBA; Linder, 2000) was “developed in response to the need for a more functional and holistic approach to determining a child’s level of development, skills, learning style, and interaction patterns” (p. 141). The TPBA evaluates the structured and unstructured play of a child from infancy up through the age of six via systematic observation. Four developmental domains are explored: cognitive, social-emotional, communication and language, and sensorimotor. The purpose of this instrument is to assist professionals in the development of a program plan for specific interventions for children in early childhood programs.

The TPBA (Linder, 2000) is completed in six phases. During Phase I, the child participates in unstructured play in which the child leads or initiates play with the examiner. Phase II is structured play facilitation. Phase III provides the opportunity for the child to interact with a peer. During Phase IV, the child and parent participate in structured and unstructured play. Phase IV also includes situations in which the parent is asked to leave so that separation and reunion behaviors may be observed. Phase V involves structured and unstructured motor play. Phase VI, the final phase, screens for oral motor difficulties and other developmental observations (Linder).

The TPBA is both a useful observation tool and a dynamic process (Linder, 2000) that can be used to assess a child's various levels of development, determine strengths and weaknesses, identify areas needing intervention, and distinguish learning styles and interaction patterns. The outcomes can assist educators and therapists in ascertaining appropriate targets for interventions and in discovering strategies that are likely to enhance developmental progress. The guidelines may also serve as an observational tool for the purpose of ongoing evaluation of developmental progress (Linder). The TPBA identifies areas in need of interventions, but it provides little information with regard to intervention suggestions for home and school.

#### *Developmental Play Assessment Instrument*

The Developmental Play Assessment Instrument (DPA; Lifter, 2000) was developed to evaluate the play activities of children with developmental delays and disabilities to assess what the child knows, where he/she is in the process of learning, and what developmental limits the child currently faces. The DPA is an assessment tool designed to identify developmentally relevant play activities. The play actions that are identified and quantified in the DPA are conceptualized from a cognitive/developmental perspective. It allows for interventions that may facilitate progress in development (Lifter). A useful tool in the planning of educational and therapeutic interventions, the DPA can also be used for screening and diagnostic purposes.

There are three steps in the coding of the child's behavior. First, the play actions of the child are recorded in raw frequency counts. Second, the play actions are reorganized into categories of activities. From this, the scorer can determine the frequency, and types of activities. Finally, the scorer summarizes the actions according the developmental sequence outlined by the test authors. The results are categorized as follows: mastery of learning, emerging learning patterns, and absence of play categories. Mastery was operationally defined as the occurrence of at least 10 instances of the categories with at least four different types represented within the 30-minute time period. Emergence was defined as the occurrence of at least four instances of the category with a minimum of two different types presented. Anything less is defined as absent (Lifter, 2000).

The DPA is useful in the assessment of developmental disabilities, in particular language delays and language disorders, as the normative samples consisted of primarily autistic children. Greater research is needed to explore standardization when working with diverse groups. Further, the normative sample size was small. Methods for teaching and implementing interventions are still under research. Additional validity and reliability research is needed on the DPA.

#### *Affect in Play Scale*

Noting a need for empirical validation for play intervention (Russ, 2004) and that many of the cognitive, affective, and personality processes important in the development of children occur in their pretend play, Russ, Niec, and Kaugers

(2000) saw a need for a standardized measurement of the affective expression in children's pretend play. The Affect in Play Scale (APS; Russ, et al.) was designed to measure various types of affect expressed within children's fantasy play as well as the amount of these affects expressed. The APS uses a standardized play task and a criterion-based rating scale. The play task involves two human puppets and three blocks. Children are prompted to play with the toys freely for ten minutes. The play session is videotaped and later evaluated using the APS rating scale that measures the child on three major affect areas: total frequency of units of affective expression, variety of affect categories, and mean intensity of affective expression (Russ, et al.; Russ, 2004). The quality of the child's fantasy and imagination in play is also scored in the areas of organization, elaboration, imagination, and quality of fantasy. Interrater reliabilities were found to be consistently strong ( $r=.74$  to  $.90$ ) with the exception of intensity of affect ( $r=.53$ ) (Russ, et al.; Russ, 2004). Many studies have been contributed to the construct validity of the APS to theoretically relevant criteria (Russ & Schafer, 2006) such as creativity (Russ, 1993, 1998), coping (Christiano & Russ, 1996), divergent thinking (Russ & Grossman-McKee, 1990), and interpersonal functioning (Niec & Russ, 2002)

Findling (2004) stated that while the APS appeared to capture a broad range of affective expressions embedded within the fantasy play of children, it does not appear to meet the need for a developmentally responsive measure of the impact of trauma on children. The above mentioned assessments do not

address the play behaviors associated with traumatized children (Gil, 1991; James, 1989; Shelby & Felix, 2005; Terr, 1983).

### *Play-Based Assessments for Use in Play Therapy*

The following measurement instruments related to play or play therapy were reviewed: the Play Therapy Observation Instrument (PTOI; Howe & Silvern, 1981); the initial assessment interview (Nader & Pynoos, 1991); the NOVA Assessment of Psychotherapy (NAP; Faust & Burns, 1991); and the Children's Play Therapy Instrument (CPTI; Kernberg, Chazan, & Normandin, 1998).

#### *Play Therapy Observation Instrument*

The Play Therapy Observation Instrument (PTOI), developed by Howe and Silvern (1981) and adapted by Perry and Landreth (2001), is a rating scale of play therapy behavior. The PTOI measures the functioning of children within the context of play therapy. The PTOI provides therapists with a useful and readily usable instrument for codifying behavior during a play therapy session. The PTOI consists of 13 play therapy behaviors indicative of important clinical concepts. These scores form three theoretically meaningful subscales, which are social inadequacy, emotional discomfort, and use of fantasy (Perry & Landreth).

The PTOI uses 12-minute segments of videotaped play therapy sessions. The rater reviews a 12-minute segment and then rates the frequency and/or intensity of the child's play behaviors as represented on each subscale. An examination of the ratings of the child's play behaviors provides information for

detailed assessment of the child, planning of therapeutic treatment, and prognosis (Perry & Landreth, 2001).

Research has established support for the use of the PTOI as a measure of children's emotional well-being. Perry and Landreth (2001) found the PTOI to have significant ability to discriminate between the play behaviors of well-adjusted children and maladjusted children in areas of emotional discomfort, social inadequacy, and fantasy play. Rosen, Faust, and Burns (1994) used the PTOI in evaluating the process and outcome measures of psychotherapy for children. Through the course of therapy, children became more comfortable and engaged more frequently in fantasy play. Significant differences were found when the researchers examined changes in the Fantasy Play scores and Quality of Interaction from session one to session eight. In their research, Rosen, et al. found interrater reliability to be high at 85%.

The PTOI appears to be sensitive to changes within the play therapy process. However, it fails to address key play behaviors that are considered indicative of trauma, especially repetitive play (Terr, 1991; James, 1994). For this reason, the PTOI appears to be inadequate in the measurement of the play therapy behaviors of traumatized children.

#### *Initial Assessment Interview*

Nader and Pynoos (1991) investigated the psychological impact of catastrophic events on children and the resulting impact on their coping skills. From their work they developed a protocol for conducting assessment interviews



with young children through the use of their play and drawings (Nader & Pynoos). The authors believed the play and drawings of children often revealed actual details of the traumatic event. Nader and Pynoos asserted children communicate through their play and drawings the part of the event that is most troubling to them, and how and when they felt most helpless. Nader and Pynoos used a structured interview. Children were asked first to engage in free play to establish a trusting relationship. Next, the children were asked to draw or act out the worst part of the traumatic event. Then, following a specialized trauma interview, researchers directed children to retell or replay the story in slow motion, adding more detail and exploring emotional responses. The final phase of the interview involves the therapists engaging in active interventions and assisting children with resolution.

Nader and Pynoos' (1991) interview assessment utilizes play, a developmentally appropriate approach, to assess posttraumatic stress disorder in children. However, as the authors identified, the structure of this interview assessment does not allow for the assessment of the impact of posttraumatic measures over time. Findling (2004) expressed concern regarding the directive nature of this structured interview assessment and that it does not acknowledge the innate drive for growth and healing within children.

#### *NOVA Assessment of Psychotherapy*

Faust and Burns (1991) stated there was a need for objective, psychometrically sound measures for child psychotherapy and play therapy. In

particular, they saw a need for an instrument to monitor and adjust therapeutic process and outcome. To meet this need, Faust and Burns developed the NOVA Assessment of Psychotherapy (NAP; Faust & Burns) to advance, process, research, and aid in determining therapeutic outcome. The NAP scale uses a standardized approach with a treatment manual. Raters using the NAP scale were trained to observe video recorded play sessions and code the frequency of behaviors of both the child and the therapist. These behaviors are subgrouped into four classes, child verbal, child nonverbal, therapist facilitating, and therapist channeling codes. Faust and Burns reported a criterion-referenced reliability of .90 in training based on two five-minute segments of play, coded in seven-second intervals. The authors reported 97.5% overall reliability on a single case study following training.

Findling (2004) noted the focus on both the child and therapist behaviors in the play session to be a strength of this instrument, but she identified three limitations. First, this instrument was developed using non-clinicians as play therapists. Second, the process of transcribing every session prior to coding is time intensive and therefore not conducive to process research. Third, like the PTOI (Howe & Silvern, 1981), the NAP does not address those play behaviors associated with posttraumatic play (James, 1989; Terr, 1983). Therefore the NAP (Faust & Burns, 1991) does not appear to be suitable to the assessing of the play behaviors of traumatized children as they engage in play.

### *Children's Play Therapy Instrument*

Kernberg, et al. (1998) developed the Children's Play Therapy Instrument (CPTI) to address the need for an objective instrument to measure the change and outcome of child treatment. The CPTI provides a comprehensive measure of play behaviors including affective, cognitive, dynamic, and developmental components. Raters observe and rate video recorded play sessions in a three-step process. At level one, Segmentation of Child's Activity, raters observe and code the child's non-play activity, pre-play activity, play activity, and interruptions. At level two, Dimensional Analysis of the Play Activity, raters write a narrative based on one dimension from level one and conduct a descriptive, structural, and adaptive analysis of the child's segment of the child's play. At level three, Pattern of Child Activity Over Time, the examiner compares the narratives of a child's play behaviors across play sessions, noting patterns of change.

Kernberg, et al. (1998) conducted a preliminary interrater reliability study on the CPTI with three raters observing eight video-recorded play therapy vignettes. Kernberg, et al. used Landis and Koch's (1977) weighted kappa to judge the degree of reliability obtained by raters (kappa 0.00 to 0.39 poor; 0.40 to 0.74 acceptable to good; 0.75 to 1.00 excellent). The authors (Kernberg, et al.) reported interrater agreement on the first level of analysis (weighted kappa coefficient = .69), and low to good interrater agreement on the various subscales of the second level (.09 to .88). After refining the instrument, a follow-up interrater reliability study was conducted by independent raters who received fifteen hours

of training on the CPTI. A good to excellent level of interrater reliability was found at level one (weighted kappa coefficient = .72) and acceptable to excellent interrater agreement on level two (.52 to .89).

The use of the CPTI is limited through being grounded in psychodynamic interpretations of the child's play. Those therapists not espousing the basic assumptions (i.e. defense mechanisms) of the theory would have difficulty using the instrument (Chazon, 2003). This limitation is more evident when taken in consideration with the findings of a nationwide survey of play therapists in the International Association of Play Therapy (Ryan, Gomory, & Lacasse, 2002). The study found respondents identified themselves as either child-centered (56 %) or cognitive-behavioral (42%) indicating the plausible use of the CPTI to very small portion of play therapists. Another limitation is the time intensity of 15 hours of training and the viewing of each session twice.

#### *Play-Based Assessments of Trauma Play Behaviors*

The following measurement instruments related to trauma play behaviors in play therapy were reviewed: the Play Therapy Screening Instrument for Child Sexual Abuse (PTSI-CSA; Homeyer, 1994), and the Trauma Play Scale (TPS; Findling, et al., 2006).

#### *Play Therapy Screening Instrument for Child Sexual Abuse.*

The Play Therapy Screening Instrument for Child Sexual Abuse (PTSI-CSA), based on Homeyer's (1994) research, identifies children who are at a high risk of being sexually abused. The PTSI-CSA consists of 15 sexual play

behaviors consistent with and highly correlated (Homeyer & Landreth, 1998) with children who have been sexually abused. Each item in the instrument is a specific, spontaneous behavior exhibited by a child in a play therapy session. The PTSI-CSA is to be used when the play therapist begins to question whether the child's play therapy behaviors may reflect sexual abuse.

Primarily designed for use in nondirective play therapy, the PTSI-CSA (Homeyer & Landreth, 1998) can be also used to access spontaneous behaviors that are expressed by the child in a more directive play therapy sessions (Homeyer, 2001). The PTSI-CSA is an empirically researched screening instrument and is an easy tool for the trained play therapist to utilize in discriminating between sexually abused children and nonsexually abused children in the play therapy setting. Caution does need to be used when interpreting the results to avoid false positive and negative. Additional research is needed to develop norm groups and its usefulness with diverse populations. Although the PTSI-CSA (Homeyer & Landreth) examines the play behaviors of traumatized sexually abused children, Findling (2004) found it to be overly specific to child abuse for the use of her study.

### *The Trauma Play Scale*

*Instrument Development.* In response to the limitations of the above-mentioned instruments, Findling, et al. (2006) developed the Trauma Play Scale (TPS), an observation-based instrument, to measure play therapy behaviors of children in play therapy related to the construct of posttraumatic play. The TPS

utilizes sequential series of video-recorded play sessions rated by trained observers over five play therapy behaviors identified as indicative of the posttraumatic play (Gill, 1998; James, 1989; Terr, 1981).

The TPS uses a five-point Likert scale with behavioral anchors for each scale point (see Appendix B). The TPS was designed so that raters could rate a child's behavior, via video-recorded play therapy sessions, at five-minute intervals. The scale consists of the following domains (1) Intense Play, (2) Repetitive Play, (3) Play Disruptions, (4) Avoidant Play Behaviors, and (5) Expression of Negative Affect (Findling, et al., 2006).

In developing the TPS, Findling, et al. (2006) followed standard instrument development methodology as outlined by Hill (1991) and Netemeyer, Bearden, and Sharma (2001). As young children developmentally lack the verbal and cognitive abilities necessary to accurately respond to self-report measures, the designers of the TPS selected an observational design. Findling, et al. postulated that the observational character of the TPS enhances the objectivity and reliability of the scale. Designers hoped that the high specificity nature of the behavioral anchors would increase the rater's understanding of rating process of the video-recorded play sessions, and thus increase interrater reliability. Posttraumatic play is inherently manifested within the play behaviors of children who have experienced trauma (James, 1994; Terr, 1983). For this reason, Findling, et al. developed the TPS as a play-based measure. As posttraumatic play is reported to be repetitive (Eth, 2001; Terr), the TPS was designed to be

used over multiple observations. The TPS was designed to be an objective measurement instrument, sensitive to posttraumatic play as exhibited in a therapeutic setting and responsive to the developmental needs of young children (Findling, et al.).

Findling, et al. (2006) conducted a thorough review of childhood trauma literature and concluded there was no existing measurement instrument that adequately assessed the play behaviors of traumatized children. Following Hill's (1991) recommendations, the designers reviewed archival data; used various versions of the TPS to systematically view and rate video-recorded play therapy sessions of both traumatized and non-traumatized children to capture play behaviors most salient to the concept of posttraumatic play (Eth, 2001; James, 1989; Terr, 1983). Findling, et al. then used a focus group for the revising and refining of the scale. Over an eight-month period, the efforts of the focus group led to a clarification of items, forming the basis of the five subscales included in the current version of the TPS. The developers strove to ensure the domains on the TPS were conceptually mutually exclusive (Hill), and the scale as a whole was broad enough to have clinical meaning, and at the same time specific enough to have clinical utility (Findling, et al.). Because the authors postulated that play therapy behaviors of children might be different depending on whether the treatment approach was more directive or nondirective in nature, the TPS was designed to be used to observe children engaged in primarily self-directive play consistent with humanistic approaches such as CCPT. The authors

developed the TPS User's Guide, a protocol manual for the TPS and piloted its use with the initial focus group.

Findling, et al. (2006) studied the ability of the TPS to discriminate between the play behaviors of two groups currently in play therapy, one group with a history of interpersonal trauma and the second group with no known history of interpersonal trauma. Each group consisted of six children ranging from five to seven years of age. The authors recruited and trained five raters; all trained and experienced play therapists. Inter- and intra-rater reliability was evaluated. The authors examined ability of the TPS to discriminate play behaviors of children not only within a single session, but over time. To address these goals, the authors developed an original study involving the video recording of eight consecutive CCPT sessions (between sessions two and thirteen) for each of the 12 subjects.

*Inter- and Intra-Rater Reliability.* Interrater reliability was checked through analyzing the scores collected from raters during the rater's initial training session prior to the rating period of the study, and again at the midpoint of the study (Findling, et al., 2006). Raters observed video-recorded play therapy sessions and recorded their ratings in five-minute intervals across the five domains: Intense Play, Repetitive Play, Play Disruptions, Avoidant Play Behavior, and Expression of Negative Affect. The TPS was designed for use by professionals who have specific training in the use of the TPS and who have prior knowledge, training and experience in: 1) child development; 2) childhood



trauma; and 3) play-based psychotherapy with children, specifically humanistic approaches such as child-centered/non-directive play therapy. Raters were trained in the assessment protocol by the second author and the resulting data was used to determine inter- and intra- reliability (Findling, et al.). Initial interrater agreement was at 97% agreement across all data, with a mean correlation coefficient of .86. Midpoint interrater agreement was at 98% agreement across all data, with a mean correlation coefficient of .80. Intra-rater reliability was conducted through obtaining two separate ratings of the same video-recorded play therapy session with several weeks between the two ratings. Intra-rater reliability coefficients were found to range from .85 to .98. All analyses supported the conclusion that the TPS appears to possess a high degree of inter- and intra-rater reliability (Findling, et al.).

*Discriminant validity.* The next step in developing the TPS was to determine the discriminant validity of the instrument. Discriminant validity was examined by comparing the play therapy behaviors of children clinically referred with a history of interpersonal trauma to children clinically referred with no known history of interpersonal trauma. To address these goals, the authors used the TPS to examine the play therapy behaviors of two clinically referred groups of children, one group with a history of interpersonal trauma and one group with no known history of interpersonal trauma. Children participated in play therapy sessions conducted by therapists who were trained and supervised in CCPT. The procedure involved rating video recordings of eight consecutive play therapy

sessions for each subject, excluding the first session during which the child is often focused on exploratory play, and becoming familiar with the therapist and the play room.

To determine discriminant validity of the TPS the researchers computed series level scores for each domain as well as the Average TPS Score. Series level scores refer to the aggregate scores across the eight sessions. Series level scores were analyzed for group differences with a one-way analysis of variance (ANOVA) at the .05 level of significance (Findling, et al., 2006). The authors used Cohen's (1988) guidelines to interpret effect sizes of findings. "What if" analyses were conducted post hoc to help evaluate the impact of low sample size on statistical significance results (Henson & Smith, 2000; Roberts & Henson, 2002).

*Average TPS Score.* Results of a one-way ANOVA demonstrated that while the between group effect was not statistically significant ( $p=.08$ ,  $\eta^2=0.28$ ), the group effect accounted for 28% of the variance in scores, considered a large effect. A "what if" analysis was conducted post hoc to evaluate the impact of the low sample size on statistical significance results (Henson & Smith, 2000; Kieffer & Thompson, 2000). Under the assumption of a constant effect size, only three additional participants would have produced a statistically significant effect size at  $p=.04$ .

Findling, et al. (2006) chose to re-examine the data omitting the Repetitive Play domain due to several difficulties encountered in scoring this domain. Results of a one-way ANOVA of the Average TPS Score, omitting Repetitive

Play, revealed that the between group effect was statistically significant ( $p=.03$ ,  $\eta^2=0.41$ ), and that it accounted for 41% of the variance in the two groups' scores. Statistical analysis of domain data for this subscale is presented below and further supported reanalyzing the overall TPS data without its inclusion.

It is important to note that the domains of the TPS are not intended to be used as stand-alone measure of posttraumatic play. The TPS was designed to detect differences in the play therapy behaviors of children with a history of interpersonal trauma when observing all five domains as a cumulative sum over time (Findling et al., 2006). However, for the purpose of developing the TPS, data from each scale was analyzed to examine its ability to discriminate between the play therapy behaviors of children with a history of interpersonal trauma and those who had no known history of interpersonal trauma.

*Intense Play Domain.* Intense play is described as when a “child is extremely focused/absorbed in play that seems to hold specific meaning to the child; at extreme, play has a driven quality and lacks joy/spontaneity” (Findling, 2004, p. 180). Findling, et al. (2006) included the Intense Play domain in the TPS for the following reasons: experts in the field of child psychotherapy and posttraumatic play have recognized the intense and driven nature of play behaviors of traumatized children, describing this play as possessing a sense of compulsion and urgency (James, 1989; Nader & Pynoos, 1991; Terr, 1983, 1991). Results of a one-way ANOVA demonstrated that at the .05 level, the between group effect was not statistically significant,  $p=.06$ ,  $\eta^2=0.30$ . The group

effect accounted for 30% ( $\eta^2=.30$ , a large effect) of the variance in the two groups' series level Intense Play domain scores, and based on a post hoc "what-if" analysis, would have been statistically significant with just two additional participants (at  $p=.04$ ).

*Repetitive Play Domain.* Repetitive play occurs when a "child returns to specific play behaviors, play sequences or themes that seem to hold specific meaning or importance to child" (Findling, 2004, p. 181). Findling, et al. (2006) included the Repetitive Play domain in the TPS for the following reasons; the repetitive nature of play behaviors of children who have been traumatized is highly documented (Gil, 1991; James; 1994; Terr, 1983). Terr (1983) described posttraumatic play often possessing a ritualistic quality. She noted these children appear to have a need to play out repeatedly in the same manner each time they play. Terr (1983) initially noted children may avoid engaging in repetitive play patterns in a therapeutic setting due to the child's need to control the environment. Later, Terr (1990) stated, "If the child has experienced a trauma, this experience will eventually play itself out in the therapist's office" (p. 299). Second, the repetitive nature of posttraumatic play is so widely recognized it has been included as one of the diagnostic criteria for PTSD in children (Eth, 2001); despite the relative lack of empirical data supporting the existence of repetitive play in traumatized children (McLean-Russell, 1994). Results of a one-way ANOVA demonstrated that the between group effect was not statistically significant,  $p=.84$ ,  $\eta^2<.01$ , at the .05 level. The result indicates that group

membership had essentially no relationship with the series level Repetitive Play domain score. In fact, this small effect would have taken 854 participants to have enough power to become statistically significant ( $p=.04$ ). Findling, et al. concluded their definitions for repetitive play had not fully accounted for the complexity of the construct. In addition, with the raters being blind to the study, and thus having no knowledge of the traumatic experiences of the children in the traumatized group, raters were unable to determine the literalness of the repetitive play.

*Play Disruption Domain.* A play disruption is when there is a “Sudden shift in play away from a play sequence that seems to hold specific meaning to the child” (Findling, 2004, p. 182). Findling, et al. (2006) included the Play Disruption domain in the TPS based on literature review. First, Erikson (1963) identified a play disruption as a “sudden and complete or diffused and slowly spreading inability to play” (p. 224) accompanied with “an emotion becomes so intense that it defeats playfulness” (p. 224). Play disruptions can be considered an indicator of the intensity of emotions expressed through play (Findling). Play disruptions are considered to be a form of dissociation (James, 1994; van der Kolk, 1994), a self-protective response to the reexperiencing of past traumatic events in play. “Dissociation protects trauma survivors from overwhelming emotions, thoughts, and sensations, and allows them to function in their environments” (James, 1994, p. 13). Second, the concept of play disruption is also consistent with play therapy philosophy that postulates the innate capacity of children to self-direct the

therapeutic process (Axline, 1969; Landreth, 2002) and viewed play disruptions as indicator of a child's emotional distress (Erikson). At the .05 level, results of a one-way ANOVA demonstrated that the between group effect was not statistically significant,  $p=.015$ ,  $\eta^2=0.20$ . The group effect accounted for 20% ( $\eta^2=.20$ , a large effect) of the variance in the two groups' series level Play Disruption domain scores, and would have been statistically significant with eight additional participants.

*Avoidant Play Domain.* Avoidant play is when a "child avoids contact w/ therapist; at extreme, child is clearly rejecting of relationship with therapist and seems to lack trust in therapist" (Findling, 2004, p. 184). Findling, et al. (2006) selected the Avoidant Play Behavior domain for use in the TPS for several reasons based on the importance of the healing element of the child-therapist relationship within the play therapy session (Axline, 1969; Landreth, 1982, 2002; Moustakas, 1959). The level of a child's connectedness with or avoidance of the therapist is indicative of the child's coping style with interpersonal relationships. This is especially true with children who have experienced interpersonal trauma (Findling). Attachment trauma (James, 1994) is a type of trauma resulting from the loss of an attachment, or the abuse or neglect by a parent or significant caregiver. In response to abuse or neglect, children may develop avoidance of intimacy as self-protection. Whereas this avoidance may have protected the child in the abusive relationship, if left unchanged, the child may have difficulty developing significant, healthy relationships in the future (James,). James

described avoidance behavior in children as exhibiting clingy behavior, hyperactivity, avoidance of eye contact, withdrawal, or personal habits that may keep others at a distance (i.e. not bathing, wetting self). From their abuse or neglect experience, these children often find it difficult to trust adults and may continue to avoid physical or emotional closeness through being guarded, controlling, hyperactive, or adultified. Mills and Allan (1992) stated maltreated children are more likely to show aggressive or withdrawing behaviors than well-treated children. Terr (1983) believed children may use avoidance behaviors to hide their traumatic play. Results of a one-way ANOVA demonstrated that the between group effect was not statistically significant,  $p=.09$ ,  $\eta^2=0.25$ , at the .05 level, but a large effect size was obtained. The group effect accounted for 25% of the variance in the two group's series level Avoidant Play domain scores, and was under-powered by only four participants.

*Negative Affect Domain.* Negative affect is the degree to which child expresses negative affect during segment (anxiety, flat affect, anger, sadness, fear, etc.)" (Findling, 2004, p. 185). Findling, et al. (2006) included the Expression of Negative Affect domain, or the degree to which a child expresses negative affect (anxiety, flat affect, anger, sadness, fear, etc) in play, in the TPS for several reasons. First, in a review of the literature, several authors noted a joyless quality in the play of traumatized children (James, 1994; Schaefer, 1994; Terr, 1990). Terr (1983) stated posttraumatic play often fails to relieve the child's anxiety. Findling reasoned the expression of negative affect, especially anxiety,

was often present in the play therapy behaviors of traumatized children. Schaefer (1994) noted traumatized children's play often has a literal quality and lacks the joy and spontaneity typically seen in children's play. Second, Findling proposed children struggling to master traumatic experiences will naturally experience feelings of anxiety, sadness, and anger. Results of a one-way ANOVA demonstrated that at the .05 level the between group effect was not statistically significant,  $p=.09$ ,  $\eta^2=0.25$ . The group effect was large, accounting for 25% of the variance in the two groups' series level Expression of Negative Affect domain scores, and would have been statistically significant with four additional participants.

*Need for Normative Data.* Findling et al. (2006) concluded that a limitation in the development of the TPS was the lack of a normative sample, an important step in the determination of discriminant validity. Accepted guidelines in the development of psychological instruments emphasize the development of normative data (Gandek & Ware, 1998). The establishment of normative data is a necessary and appropriate step in the assessment construction and interpretive processes (Nelson, 1994; Cicchetti, 1994), and is essential to the accurate interpretation of scale scores (Cooke, McKenna, Fleming, & Darnell, 2006; Gandek & Ware, 1998; Seo, Lee, Kim, Lee, Jhoo, Youn, Choo, Ha, & Woo, 2006), providing a clearly defined, empirical reference point (Cicchetti, 1993; Mitrushina, Bone, & D'Elia, 1999).



The collection of normative statistics provides data for the testing of the validity of the instrument (Cicchetti, 1994), determines the effectiveness of the instrument to discriminate between the target and normal populations (Golombok & Rust, 1993), and increases the robustness and reliability of the measurement (Friedrich, Gramsch, Damon, Hewitt, Koverola, Lang, Wopfle, & Broughton, 1992). Discriminant validity provides a context for the interpretation of scale scores (Malic, Ivnik, Smith, Tangelos, Peterson, Kokmen, & Kurland, 1992; Sharma, Botzet, Sechrist, Arthur, & Winters, 2006), and enables researchers and practitioners to make meaningful and valid interpretations of within- and between-group comparisons (Apolone & Masconi, 1998; Cicchetti; Cooke, et al., 2006; Gandek & Ware, 1998; Golombok & Rust).

Normative data provides information that enables researchers to determine the ability of an instrument to discriminate normal individuals from the target population (Naglieri & Pfeiffer, 1992). An indication of a good screening instrument is a high discriminative sensitivity, or accuracy, of the instrument in identifying an individual in the target population (true positive) or in the normal population (false positive) (Cooke, et al., 2006; Gandek & Ware, 1998). Normative data decreases the chances of both Type I and Type II diagnostic errors (Anderson, 2001). The value of providing normative data in instrument development is clear (Mitrushina, et al., 1999; Sharma, et al., 2006).

## Summary

In summary, trauma has strong and lasting negative effects on the lives and development of children (Gil, 1991; James, 1994; Perry, 2001a; Terr, 1983; van der Kolk, 1994). James, Terr, and Gil believed certain play behaviors, often referred to as posttraumatic play, are characteristic of children with a history of trauma. The importance of play in the lives of children has long been recognized globally (i.e. child development theorists, educators, national and international child advocacy groups, child therapists). A review research literature supports the use of play therapy as a developmentally appropriate treatment approach to working with children with a diverse range of presenting issues, including trauma.

Findling, et al. (2004) noted that a dearth of scientific research into the play therapy behaviors of children with a history of interpersonal trauma. Existing instruments designed to measure the play behaviors of children in play therapy deemed too general, too specific, or too limited in their applications to address the specific play therapy behaviors characteristics believed to exist in the play of children with a history of interpersonal trauma (James, 1994; Terr, 1983).

The development of the TPS is in its infancy. Further research is needed to develop support for its ability to discriminate the play behaviors of traumatized children. In the TPS pilot study (Findling, et al., 2006), the TPS was examined in its ability to discriminate play therapy behaviors of children who have been clinically referred with a history of interpersonal trauma when compared to children who have been clinically referred with no known history of interpersonal

trauma. The next logical and vital step in the development of this instrument as a developmentally responsive and valid measure of play therapy behaviors of traumatized children is the inclusion of a normative sample.

## CHAPTER 2

### METHODS AND PROCEDURES

The purpose of this study was the continuation of the development of the Trauma Play Scale (TPS) by adding a normative sample. The TPS is an observation-based assessment designed to measure the play behaviors of children with a history of interpersonal trauma as they engage in CCPT. The addition of a normative sample tests the ability of the instrument to discriminate between the play behaviors of children who have been clinically referred with a history of interpersonal trauma and children who are considered normally developing as they engage in play therapy. A normative sample also increases the robustness and reliability of the TPS (Friedrich, et al., 1992), as well as its diagnostic utility and discriminant validity (Malec, et al., 1992).

The TPS is designed to provide clinicians with: 1) a developmentally responsive means of measuring posttraumatic responses in children based on direct observations of play behaviors; and 2) an increased understanding of the play therapy behaviors of children with a history of interpersonal trauma in order to enhance the clinical treatment of this vulnerable population (Findling, Bratton, & Henson, 2006). This chapter addresses the research question guiding the study, the definition of terms, an overview of the study, participant selection, and a description of the data collection and analyses.

## Research Question

This study was designed to answer the following question:

Does the Trauma Play Scale (TPS) discriminate between the play behaviors of referred children who have a history of interpersonal trauma and the play behaviors of non-referred, non-clinical children considered normally developing, with no known history of interpersonal trauma as they engage in play therapy?

## Definition of Terms

*Average TPS Score* is defined as the mean aggregate score across the entire series of play therapy sessions rated. The TPS score for each session is derived by averaging the means of the five subscale domains within the session. The Average TPS Score is calculated by averaging the session-level TPS scores across the entire series. For the purpose of this study, eight consecutive play therapy sessions between sessions 2 and 13 will comprise the series.

*Avoidant Play* is defined as play behavior characterized by the child's disconnectedness or avoidance of the therapist. For the purpose of this study, this construct is operationally defined by the Avoidant Play domain score on the TPS.

*Clinically Referred Children* are defined as children referred by their parents or caregivers to a mental health professional or clinic for a variety of social, emotional, and behavioral concerns.

*Discriminant Validity* is described as “to the degree to which data from an assessment instrument are not related unduly to exemplars of other constructs” (Haynes, 2003, p. 239). For the purpose of this study, the discriminant validity of the TPS will be assessed through whether or not the TPS scores for the normative sample (children developing normally) differ significantly from the scores for the trauma group (children clinically referred with a history of interpersonal trauma).

*Domain Scores* are defined as the mean aggregate scores across the entire series of play therapy sessions rated for each domain of the TPS (intensive play, repetitive play, play disruption, avoidant play, and negative affect). These domain scores are calculated by averaging their respective session-level domain scores across the entire series. For the purpose of this study, eight consecutive play therapy sessions between sessions 2 and 13 will comprise the series.

*Intense Play* is defined as play behavior that has an intense, compulsive, and driven character. For the purpose of this study, this construct is operationally defined by the Intense Play domain score on the TPS.

*Interpersonal Trauma*, or relational trauma, is defined as a specific category of trauma involving an interpersonal loss within a relationship with a significant caregiver. This loss may be signified by a break in trust with a parent or significant caregiver through abandonment, neglect, or abuse. For the purpose of this study, interpersonal trauma will be defined as the parents’ or caregivers’

report of potentially traumatic events in the child's past that involve some degree of interpersonal loss such as loss of trust in a significant caregiver through abandonment or abusive behavior (Findling, 2004).

*Interrater Reliability* is defined as the degree in which ratings of objective raters reflect actual observed behavior rather than personal idiosyncrasies of the observer (Heppner, Kivlighan, & Wampold, 1999). Interrater reliability is a measure of consensus and consistency achieved among raters.

*Known-Group Validity* is defined as "the extent to which a measure differs as predicted between groups who should score low and high on a trait. Supportive evidence of known-group validity typically is provided by insignificant differences in mean scores across independent samples" (Netemeyer, et al., 2003, p. 83).

*Negative Affect* is defined as play behavior that either lacks any affect or possesses affect that is incongruent with the child's play. For the purpose of this study, this construct is operationally defined by the Negative Affect domain score on the TPS.

*Normative Sample* is defined as a group of children with no known history of interpersonal trauma, who are not currently in or previously referred for play therapy, and who score in the normal range on the Internalizing Problems, Externalizing Problems, and Total Problems scales of the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) as rated by a parent or caregiver. In addition, the social, emotional, cognitive, and physical development

of participating children appeared to be typical for children of their chronological age as reported by parents and/or teachers.

*Normally Developing Group* is defined as a group of children representative of the normative sample.

*Play Disruption* is defined as play behavior that is disrupted by the child as a form of dissociation. For the purpose of this study, this construct is operationally defined by the Play Disruption domain score on the TPS.

*Play Therapy*, for the purpose of this study, is defined as child-centered play therapy (CCPT), a “dynamic interpersonal relationship between a child (or person of any age) and a therapist trained in play therapy procedures who provides selected play materials and facilitates the development of a safe relationship for the child (or person of any age) to fully express and explore self (feelings, thoughts, experiences, and behaviors) through play, the child’s natural medium of communication, for optimal growth and development” (Landreth, 2002, p. 16).

*Repetitive Play* is defined as play behavior that must be played out the same way each time it occurs and holds specific meaning to the child. For the purpose of this study, this construct is operationally defined by the Repetitive Play domain score on the TPS.

*Trauma Group* is defined as a group of children in the pilot study (Findling, et al., 2006) who had been in the referred for play therapy and had a history of interpersonal trauma.



## Overview of Study

In order to collect TPS data for a normative sample of children, this study followed the protocol of the TPS pilot study (Findling, et al., 2006): a) participant selection phase; b) data collection phase; and c) data analysis phase. Each of these components is described in detail in later sections.

Play therapy sessions were conducted and data collected for this study at two community outreach counseling clinics on the campus of a public research university in the southwestern United States. These clinics provide counseling services to adults and children from the surrounding community while providing training opportunities for graduate students in counseling. Play therapy rooms in both clinics are equipped with a range of toys consistent with Landreth's (2002) recommendations (p. 138-142). In addition, all playrooms in both clinics are equipped with video cameras and microphones that allow therapists to make video-recordings of play therapy sessions.

Consistent with the TPS pilot study (Findling, et al., 2006), play therapy sessions were conducted by therapists who were Ph.D. level counselors or advanced doctoral counseling interns. All therapists had previously received advanced graduate level training and supervision in CCPT, child assessment, and child development. To maintain treatment integrity, each therapist adhered to the fundamental procedures of CCPT (Landreth, 2002; Ray, 2004), most importantly of which allows the child to engage in non-directed play consistent with CCPT.

## Participant Selection

Upon IRB approval (Appendix A), participants were recruited from the local community. Participants in the normative sample were recruited to match the demographics and selection criteria of the trauma sample from the TPS pilot study (Findling, et al., 2006) (see Appendix E and Table 1). All participants for the normative sample were children considered by their parents to be developing normally and met the following specified criteria (also see appendix D): a) child was between the ages of five and seven years while participating in play therapy; b) child's social, emotional, cognitive, and physical development was considered typical for children of their chronological age as reported by their parents and/or teachers; c) child had not been previously referred for therapy; d) child had no known history of interpersonal trauma (see Appendix D); e) child had scores in the normal range on the Internalizing Problems, Externalizing Problems, and Total Problems scales on the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000); f) child's parent or guardian signed an informed consent (see Appendix A) for child to participate in the present study; and g) if seven years of age, child participant gave assent to participate in the research project, unless assent had been waived by his or her parent or guardian due to the child's lack of understanding or emotional state (see Appendix A).

To meet the study's goal of six participants in the group, and to guard against attrition, 11 participants were recruited, 9 children started the study, and 7 completed the minimum number of sessions. After potential participants were

identified, the researcher met individually with the parents and: a) explained the requirements and the purpose of the research study; b) explained how confidentiality would be maintained; c) screened for inclusion criteria (Appendix D); and d) answered any questions before the parent or guardian signed the informed consent form, and when applicable, before the child signed the assent form (Appendix A).

Table 1 presents study demographics by group on the age (range and mean), gender, and ethnicity. Present study data was used for the normally developing group and archival data from the TPS pilot study (Findling, et al., 2006) was used for the trauma group.

Table 1.  
*Study Demographics by Group*

	Trauma Group (n=6) (Findling, et al, 2006)	Normally Developing Group (n=7)
Age		
Range	5 - 7	5 - 7
Mean	6 years 3 months	5 years 10 months
Gender		
Male	4	4
Female	2	3
Ethnicity		
Caucasian	4	5
African-American	1	0
Hispanic	0	1
Asian-American	1	0
Other	0	1

The age range for both groups was five through seven years, with a mean age of six years, three months for the trauma group and a mean age of five years, ten months for the normally developing group. Both groups were

predominantly male and Caucasian.

#### Data Collection Procedures

After subjects were screened for inclusion in the normative sample and consented to participation, video-recordings of the participants' weekly play therapy sessions were collected. Consistent with the TPS pilot study (Findling, et al., 2006), play therapists video-recorded a minimum of eight individual CCPT sessions, 30-minutes in length, for each child participant. The series of eight consecutive play therapy sessions were collected between sessions 2 and 13. All video-recordings used in the study were kept in a secure location to protect clients' confidentiality. Video-recordings were marked with therapists' name and child's code, age, gender, session number, and date of session.

#### *Recruitment and Training of Objective Raters*

The next step in data collection was the use of the TPS to rate the play behaviors of children in the normative sample. Objective raters with credentials similar to the raters of the TPS pilot study (Findling, et al., 2006) were recruited for this study. Raters were a doctoral intern and a Ph.D. practitioner with completed coursework in advanced training and supervision in play therapy, child appraisal, and child development. To limit potential bias during the rating process, raters were not informed of the research question guiding the study. Observer contamination occurs when a rater's knowledge of the purpose of the research study influences the rater's ratings (Gall, Borg, & Gall, 1999)

An initial training session was conducted to instruct raters in the use of the TPS and to achieve an acceptable level of interrater reliability prior to independent rating of the video-recorded study data. The second author, and a trainer, of the TPS pilot study (Findling, et al., 2006), provided training. The goal of training was to obtain a high level of continuity and consistency among raters; that is, a high level of interrater reliability, as raters learned to apply the TPS to video-recorded plays therapy segments. Raters received a thorough review of the TPS rating form (Appendix B) and the TPS User's Guide (Appendix C). Raters were provided with video examples of how to apply the TPS to video-recorded play therapy sessions. As a group, raters viewed and rated practice video-recorded play therapy sessions. After each rater independently rated the training segment, the raters were asked to report their ratings. Ratings were recorded and noted for interrater reliability check. Midway through the rating process, a midpoint raters' training session was conducted to record and analyze ratings for midpoint interrater reliability check.

#### *Interrater Reliability*

Interrater reliability is a measurement of reproducibility (Weber, 1990), or the extent to which two or more raters agree. Interrater reliability was established through both consensus and consistency estimates. Consensus estimates are based on the assumption that "reasonable raters should be able to come to exact agreement about how to apply the various levels of a scoring rubric to the observed behaviors" (Stemler, 2004, Consensus Estimates section ¶ 1) and are

useful with rating scales representing a linear continuum of a construct, such as a Likert scale (Stemler). Consensus estimates provide information regarding the level of rater agreement in their application of the TPS to video-recorded play therapy sessions. In other words, how closely did the raters' independent ratings match when measuring the intensity of a play behavior? Consensus estimates were measured through percentage agreement with the benchmark set at 70% (Stemler, 2004). Percentage agreements were calculated by dividing the total number of rater agreements by the total number of observations and multiplying by 100. Agreements were defined as ratings within one point of the mode (most frequently occurring rating), or "within one-point agreement" (Abedi, 1996; Howe & Silvern, 1981; Vantage Technologies, 1998; Young, 1994). Consistency estimates are based on the assumption that raters will be consistent in rating the domains according to their own understanding of the scale (Stemler) and are a measurement of the similarity of rating patterns between raters. Consistency estimates indicate the level of rater agreement in their application of the TPS across segments as measured by patterns. In other words, how similar were the patterns of upward and downward movement of the raters' independent ratings over time. Consistency estimates were evaluated through analysis of the raters' ratings using Cronbach's alpha coefficients (Santos, 1999), with a benchmark of 70% (Stemler, 2004).

Estimates of interrater reliability were calculated for the entire set of data rated during the initial and midpoint raters' training sessions. Table 2 presents

interrater reliability results based upon the data generated at the initial raters' training session.

Table 2  
*Interrater Reliability at Initial Raters' Training Session*

Domains	Percentage Agreement	Cronbach's Alpha
Average TPS	95%	0.73
Intense Play	100%	0.83
Repetitive Play	95%	0.70
Play Disruption	100%	Error
Avoidant Play	95%	0.85
Negative Affect	100%	0.78

Table 2 indicates raters achieved acceptable degrees of both consensus (95%) and consistency (.73) estimates of interrater reliability on the Average TPS Score during the initial raters' training session (Barrett, 2001; Stemler, 2004) in their application of the TPS to the video-recorded play therapy segments during the initial raters' training session. Findling et al. (2006) considered the Average TPS Score to be the most stable and important indicator of interrater reliability. Results of percentage agreement and consistency estimates indicated raters had an acceptable level of consensus and consistency in the application of the TPS to the play behaviors of the TPS across multiple ratings (over time).

A review of the specific domain scores on Table 2 provides additional information on how the domains of TPS contributed to the overall interrater reliability of the scale in the initial raters' training session. Consensus estimates of interrater reliability were high (95-100%) (Stemler, 2004) on all domains of the TPS as were consistency estimates (.70-.85) (Barrett, 2001), with the exception of the Play Disruption domain, indicating raters had a high level of agreement

and consistency in the application of the scale domains over time. Consistency estimates of interrater reliability like Cronbach's alpha coefficient or Pearson's r correlation coefficient are incalculable if one set of data has zero variance. In the Play Disruption domain, one rater had zero variance in rating this domain and hence consistency estimates could not be computed. Visual review of the rating sheets revealed only 1 of 11 segments was rated differently, with a variance of one point on a five-point Likert scale. This review suggests raters were consistent in their application of this domain over time.

Estimates of interrater reliability were again calculated at the midpoint raters' training session. Table 3 presents results of interrater reliability analyses based upon data generated at the midpoint raters' training session.

Table 3  
*Interrater Reliability at Midpoint Raters' Training Session*

Domains	Percentage Agreement	Cronbach's Alpha
Average TPS	86%	0.74
Intense Play	89%	1.00
Repetitive Play	89%	0.99
Play Disruption	100%	Error
Avoidant Play	89%	0.96
Negative Affect	89%	0.90

As indicated in Table 3, raters attained 86% percentage agreement (Stemeler, 2004) and a mean correlation coefficient of .74 (Barrett, 2001) on the consistency estimates for the Average TPS Score as rated during the midpoint raters' training session, indicating an acceptable level of interrater reliability from the initial to the midpoint raters' training session on the Average TPS Score.

Specific domain scores for the TPS were analyzed to provide additional



information related to the overall reliability of the scale. Raters attained acceptable degrees of both consensus (89-100%) and consistency (.90-1.00) estimates of interrater reliability on all TPS domains, demonstrating raters maintained a high level of agreement consistency on their application of the domains of the TPS over time. As in the initial raters' training session, the Play Disruption domain was incalculable due to zero variance of the data. Visual review of ratings showed both raters had zero variance on this domain, but with identical ratings. The fact both raters had identical ratings on this domain suggests that even though consistency estimates could not be computed, raters were consistent in the application of the Play Disruption domain over time.

All analyses support that the TPS appears to have a high degree of interrater reliability as assessed by consensus and consistency reliability measures (Barrett, 2001; Stemler, 2004). Results of the present study reinforce those of the TPS pilot study (Findling, et al.), providing a more robust overall interrater reliability for the TPS. Results from both studies attained high percentage agreements and consistency estimates. During the initial raters' training sessions the pilot study achieved 97% percentage agreement and .86 consistency estimate across all data from this training session and the present study attained 95% and .73. These high percentage levels of consensus and consistency were maintained during the midpoint raters' training sessions, the TPS pilot study attained 98 % and .80, and the present study achieved 86% and .74. Consensus and consistency estimates of interrater reliability from the

present study support the results of the pilot study, indicating that with formal training, raters can be trained to use the TPS to evaluate the complex play behaviors associated with trauma in a consistent manner. Interrater reliability results for both the present and pilot studies strongly support that the TPS can be used in a reliable manner, providing additional meaning to the discriminant validity of the TPS.

#### *Procedures for Rating Video Recorded Play Therapy Sessions*

After reaching an acceptable level of interrater reliability (Stemler, 2004; Barrett, 2001), raters rated a series of eight video-recorded play therapy sessions for each of the seven children in the normative group sessions using the TPS. To maintain consistency in the rating process across a series and to guard against fatigue, raters were instructed to evenly pace their ratings for each child participant's eight-session series. Specifically, raters were asked to rate one child's series in its entirety before rating another child. Raters were asked to rate the series in two three-hour rating sessions over a 24-48 hour period. These three hour-rating sessions allowed raters to watch half a series, four sessions, providing 40-45 minutes of rating time per each 30-minute play therapy session.

#### *Data Analysis*

Following procedures consistent with the TPS pilot study (Findling, et al., 2006), data analysis was conducted to examine reliability and validity of the TPS. TPS ratings from the eight video-recorded play therapy sessions were hand calculated for each child; generating eight sets of session-level TPS scores per

child. Session-level TPS scores included the Average TPS Score and scores for each of the five domains of the TPS (intense play, repetitive play, play disruption, avoidant play, and negative affect). Session-level scores for each child were then computed into series-level TPS scores for the Average TPS Score and each of the five TPS domains. Series-level scores for the normative sample were calculated by averaging the eight session-level scores and then entered into a database containing series-level ratings of the trauma group from the pilot study (Findling, et al.). Data was statistically analyzed using the Statistical Package for the Social Sciences for Windows (SPSS) to further evaluate the psychometric properties of the TPS. A statistician was consulted to ensure validity and appropriateness of all statistical analyses.

#### *Discriminant Validity*

Discriminant validity of the TPS was examined through an analysis of known-group validity (Netemeyer, et al., 2003). Discriminant validity for the TPS would be supported if children identified with a history of interpersonal trauma scored significantly higher on the TPS than children identified as developing normally. Particular attention was given to the Average TPS Score at the series level, an average of the session-level TPS scores across the entire series of eight play therapy sessions. The TPS score for each session is derived by averaging the means of the five subscale domains (intense play, repetitive play, play disruption, avoidant play, and negative affect) within the session. The TPS was designed to detect differences in the play behaviors of traumatized and non-

traumatized children based on a cluster of play behaviors, represented by the five TPS domains. Taken together, these behaviors are believed to be indicative of posttraumatic reactions in young children (Findling, et al., 2006). The Average TPS Score is a measure of these behaviors, taken together, over time.

One-way analysis of variance (ANOVA) were used to analyze the Average TPS Score, as well as each of the five TPS domains to examine whether predicted differences between the two groups existed in the study data. To be consistent with TPS pilot study (Findling, et al, 2006), an additional analysis was computed for the Average TPS Score - omitting repetitive play. In the TPS pilot study, raters reported difficulty in rating the Repetitive Play domain, results indicated essentially no difference in scores on this domain between two clinically referred samples, one with a history of interpersonal trauma and the second with no known history of interpersonal trauma.

Prior to analysis, data was examined to test assumptions for one-way ANOVA, including independence, normality, and homogeneity of variance. All assumptions were met with the exception of homogeneity of variance. One-way ANOVA is considered robust with respect to violations in assumptions and can be used if homogeneity of variances is approximately equal when group sizes are considered equal (one group is not more than 1 ½ times larger than the other group) (Hinkle, Weirsmas, & Jurs, 2003). In order to avoid the risk of Type I error associated with multiple hypotheses testing, a more conservative  $\alpha=.025$  was used to interpret statistical significance (Armstrong & Henson, 2005). In

accordance with the American Psychological Association's task force recommendations (Henson & Smith, 2000), effect size estimates were computed and reported along with statistical significance tests to provide a measure of practical significance. Effects sizes, or practical significance, provide information on the strength of the relationship between the independent variable, trauma history, and the dependent variable, participants' TPS scores (Trusty, Thompson, & Petrocelli, 2004). Partial eta squared ( $\eta_p^2$ ) was used to determine effect sizes as a means of assessing the practical significance of statistical results. Cohen (1988) postulated guidelines for the interpretation of partial eta squared effect size estimates: .01 to .05 equals a small effect size, .06 to .13 equals a medium or moderate effect size, and .14 or larger equals a large effect size.

## CHAPTER 3

### RESULTS AND DISCUSSION

This chapter presents results, discussion, and limitations of this study, as well as implications for practice and research. This study was designed to further assess psychometric properties of the Trauma Play Scale (TPS) by adding a normative sample. The TPS was designed to be an observation-based assessment of effects of trauma on play therapy behaviors of young children engaged in CCPT (Findling, Bratton, & Henson, 2006). Specifically, the primary purpose of the present study was to determine the discriminant validity of the TPS in detecting differences in the play behaviors of children referred to play therapy with a history of interpersonal trauma as compared to children considered normally developing with no known history of interpersonal trauma.

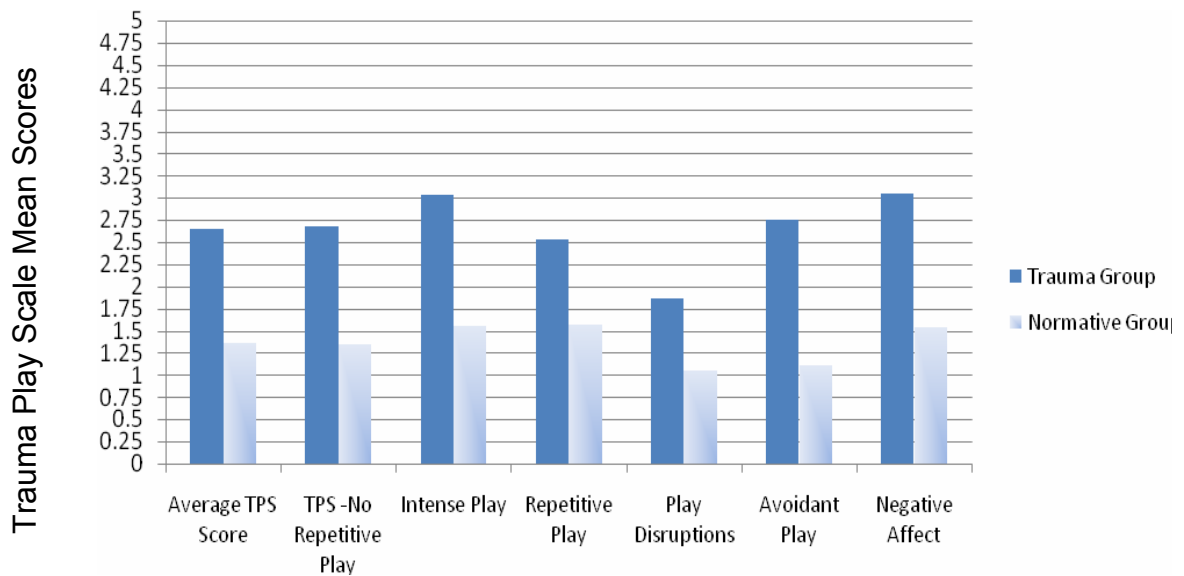
#### Results

##### *Discriminant Validity*

Discriminant validity of the TPS was evaluated through analysis of the TPS scores for the trauma group from the TPS pilot study (Findling et al., 2006) compared to the normally developing group of children from the present study. Series-level scores represent an average of the individual session scores ( $n=8$ ) for each child participant. One-way (analysis of variance) ANOVA were conducted to examine group differences on the Average TPS Score and for each of the five TPS domains (intense play, repetitive play, play disruption, avoidant

play, and negative affect). To avoid the risk of Type I error associated with multiple hypotheses testing, a more conservative  $\alpha=.025$  was used to interpret statistical significance (Armstrong & Henson, 2005). Partial eta squared ( $\eta_p^2$ ) was used to determine effect size, or practical significance, of the findings following Cohen's (1988) guidelines.

Figure 1 presents an overall summary chart of group means for the trauma group (Findling, et al., 2006) and normative group on the Average TPS Score, the Average TPS Score - omitting repetitive play, and for each of the five TPS domains (intense play, repetitive play, play disruption, avoidant play, and negative affect).



Average Trauma Play Scale Score and Domains

Figure 1. Group means for average TPS score and domain scores

### *Average TPS Scores*

Table 4 presents the means and standard deviations for the Average TPS Score for the trauma group and normally developing group at the series level. Figure 1 graphically displays group means, showing that the Average TPS Score for the trauma group was notably higher than the normally developing group.

Table 4  
*Mean Scores for the Average TPS Score*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	2.6516	1.3657
Standard Deviation	.58773	.17242
Total Cases =	6	7

Table 5  
*ANOVA Summary Table for the Average TPS Score*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	5.342	1	5.342	30.840	<.001	0.74
Within Group	1.906	11	1.73			
Total	7.248	12				

Table 5 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Average TPS Score. The group effect was statistically significant,  $F(1,11)=30.7840$ ,  $p<.001$  at  $\alpha=.025$ ,  $\eta_p^2=0.74$ . Additionally, the large effect size indicates group membership accounted for 74% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Average TPS Score.



Table 6 presents the means and standard deviations for the Average TPS Score - omitting Repetitive Play, for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Average TPS Score - omitting Repetitive Play, for the trauma group was notably higher than the normally developing group.

Table 6  
*Mean Scores for the Average TPS Score, Omitting Repetitive Play*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	2.6768	1.3486
Standard Deviation	.52438	.23547
Total Cases =	6	7

Table 7  
*ANOVA Summary Table for the Average TPS Score, Omitting Repetitive Play*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	5.699	1	5.669	36.715	<.001	0.77
Within Group	1.708	10	.155			
Total	7.407	11				

Table 7 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Average TPS Score - omitting Repetitive Play. The group effect was statistically significant,  $F(1,11)= 36.715$ ,  $p<.001$  at  $\alpha=.025$ ,  $\eta_p^2=0.77$ . Additionally, the large effect size indicates group membership accounted for 77% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Average TPS Score, omitting

Repetitive Play.

*TPS Domain Scores*

Table 8 presents the means and standard deviations for the Intense Play domain for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Intense Play domain for the trauma group was notably higher than the normally developing group.

Table 8  
*Mean Scores for the Intense Play Domain Scores*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	3.0396	1.5529
Standard Deviation	.30475	.34189
Total Cases =	6	7

Table 9  
*ANOVA Summary Table for the Intense Play Domain Scores*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	7.141	1	7.141	67.3888	<.001	0.86
Within Group	1.166	11	.106			
Total	8.307	12				

Table 9 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Intense Play domain score. The group effect was statistically significant,  $F(1,11)=67.3888$ ,  $p<.001$  at  $\alpha=.025$ ,  $\eta_p^2=0.86$ . Additionally, the large effect size indicates group membership accounted for 86% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large

positive relationship with the Intense Play domain scores.

Table 10 presents the means and standard deviations for the Repetitive Play domain for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Repetitive Play domain for the trauma group was notably higher than the normally developing group.

Table 10  
*Mean Scores for the Repetitive Play Domain Scores*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	2.5297	1.5715
Standard Deviation	.85715	.34611
Total Cases =	6	7

Table 11  
*ANOVA Summary Table for the Repetitive Play Domain Scores*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	2.940	1	2.940	7.363	.020	0.40
Within Group	4.392	11	.399			
Total	7.332	12				

Table 11 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Repetitive Play domain score. The group effect was statistically significant,  $F(1,11)=7.363$ ,  $p=.020$  at  $\alpha=.025$ ,  $\eta_p^2=.40$ . Additionally, the large effect size indicates group membership accounted for 40% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Repetitive Play domain scores.

Table 12 presents the means and standard deviations for the Play Disruption domain for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Play Disruption domain for the trauma group was notably higher than the normally developing group.

Table 12  
*Mean Scores for the Play Disruption Domain Scores*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	1.8687	1.0543
Standard Deviation	.57587	.09090
Total Cases =	6	7

Table 13  
*ANOVA Summary Table for the Play Disruption Domain Scores*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	2.143	1	2.143	13.803	.003	0.56
Within Group	1.708	11	.155			
Total	3.851	12				

Table 13 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Play Disruption domain score. The group effect was statistically significant,  $F(1,11)= 13.803$ ,  $p=.003$  at  $\alpha=.025$ ,  $\eta_p^2=0.56$ . Additionally, the large effect size indicates group membership accounted for 56% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Play Disruption domain scores.

Table 14 presents the means and standard deviations for the Avoidant Play domain for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Avoidant Play domain for the trauma group was notably higher than the normally developing group.

Table 14  
*Mean Scores for the Avoidant Play Domain Scores*

	Trauma History Group ( <i>n</i> =6)	Normally Developing Group ( <i>n</i> =7)
Mean	2.7494	1.1129
Standard Deviation	1.13278	.17576
Total Cases =	6	7

Table 15  
*ANOVA Summary Table for the Avoidant Play Domain Scores*

Source	Sum of Squares	df	MS	<i>F</i>	<i>p</i>	$\eta_p^2$
Between Group	8.653	1	8.653	14.419	.003	0.57
Within Group	6.601	11	.600			
Total	15.255	12				

Table 15 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Avoidant Play domain score. The group effect was statistically significant,  $F(1,11)=14.419$ ,  $p=.003$  at  $\alpha=.025$ ,  $\eta_p^2=0.57$ . Additionally, the large effect size indicates group membership accounted for 57% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Avoidant Play domain scores.

Table 16 presents the means and standard deviations for the Negative Affect domain for the trauma group and normally developing group. Figure 1 graphically displays group means, showing that the Negative Affect for the trauma group was notably higher than the normally developing group.

Table 16  
*Mean Scores for the Negative Affect Domain Scores*

	Trauma History Group (n=6)	Normally Developing Group (n=7)
Mean	3.0462	1.5400
Standard Deviation	.71304	.48139
Total Cases =	6	7

Table 17  
*ANOVA Summary Table for the Negative Affect Domain Scores*

Source	Sum of Squares	df	MS	F	p	$\eta_p^2$
Between Group	7.329	1	7.329	20.501	.001	0.65
Within Group	3.933	11	.358			
Total	11.262	12				

Table 17 provides a summary of the results of a one-way ANOVA, depicting the differences between the two groups on the Negative Affect domain score. The group effect was statistically significant,  $F(1,11)=20.501$ ,  $p=.001$  at  $\alpha=.025$ ,  $\eta_p^2=0.65$ . Additionally, the large effect size indicates group membership accounted for 65% of the variance in the two groups' scores, indicating that group membership (trauma history versus normally developing history) shares a large positive relationship with the Negative Affect domain scores.

## Discussion

The primary goal of this study was to further assess the psychometric properties of the TPS (Findling, et al., 2006), an observation-based instrument designed to distinguish the play therapy behaviors of children with a history of interpersonal trauma from children considered to be normally developing with no known history of interpersonal trauma while engaged in self-directive play therapy. Following the recommendations of Findling, et al., and recommendations in the literature (Cicchetti, 1994; Nelson, 1994), this study added a sample of normally developing children who had not been referred to play therapy in order to further examine the discriminant validity of the TPS. The following sections include a detailed discussion of the psychometric properties of the TPS, based on analyses of study data. Specifically discriminant validity of the TPS were explored.

### *Discriminant Validity*

The primary objective of this study was to determine the discriminant validity of the TPS in distinguishing the play behaviors of children in CCPT with a history of interpersonal trauma from those of children considered normally developing. Data was collected at the series level for the Average TPS Score and each of the five TPS domains (i.e., intense play, repetitive play, play disruption, avoidant play, and negative play). Series-level scores represent an average of the individual session scores ( $n=8$ ) for each participant. The Average TPS Score is a measurement of the posttraumatic play behaviors represented by

the TPS domains over time, and is considered to be the TPS's most stable and important indicator of posttraumatic play behaviors in children (Findling, et al., 2006). Individual domain scores were analyzed to provide additional information on how the domain scores contribute to the overall discriminant validity of the TPS.

Statistically significant group differences and large effect sizes were noted on all analyses. Results indicate children with history of interpersonal trauma demonstrated higher scores on the Average TPS Score and all five TPS domains than did participants in the normally developing group. Specifically, participants' group membership (trauma history versus normally developing) accounted for a large difference between the two groups, indicating a strong positive relationship between trauma history and participants' scores on this measure. While limited by small sample size, results support the assumption that children with a history of interpersonal trauma demonstrate significantly higher scores on the TPS than children considered normally developing with no known history of interpersonal trauma. Thus the findings of the present study provide support for the discriminant validity of the TPS (Netemeyer, et al., 2003).

To aid the reader in understanding the findings of the present study in the context of the TPS pilot study (Findling et al., 2006), Table 18 provides a summary of effect sizes and statistical significance for Average TPS Scale and Average TPS Scale, omitting repetitive play, and for each of the five domains based on one-way ANOVAs results.



Table 18

*Summarization of ANOVAs on Pilot and Present Studies' Findings*

	Findling, et al., 2006 Trauma vs. Non-Trauma <sup>a</sup>		Present Study Trauma vs. Normally Developing <sup>b</sup>	
	$\eta_p^2$	at $\alpha=.05$	$\eta_p^2$	at $\alpha=.025$
Average TPS Score	.28	$p=.080$	.74	$p<.001$
Average TPS Score, omitting Repetitive Play	.41	$p=.025$	.77	$p<.001$
Intense Play	.31	$p=.062$	.86	$p<.001$
Repetitive Play	.00	$p=.836$	.40	$p=.020$
Play Disruptions	.20	$p=.148$	.56	$p=.003$
Avoidant Play	.26	$p=.094$	.57	$p=.003$
Negative Affect	.26	$p=.094$	.65	$p=.001$

<sup>a</sup>Clinically referred children with a history of trauma (n=6) vs. Clinically referred children with no known history of interpersonal trauma (n=6)

<sup>b</sup>Clinically referred children with a history of trauma (n=6) vs. Children normally developing with no known history of interpersonal trauma (n=7)

*Average TPS Score*

Tables 4 and 5 signify children in the trauma group scored higher, as a group, on the Average TPS Score than children in the normally developing group and that the difference was statistically significant ( $p<.001$  at  $\alpha=.025$ ), indicating that children with a history of interpersonal trauma do exhibit higher levels of posttraumatic play behaviors (Findling, et al., 2006; James, 1989; Terr, 1991) than children considered developing normally, as measured by the Average TPS Score across the eight sessions. The large effect size obtained indicates that group membership shares a positive relationship ( $\eta_p^2=.74$ ) with the Average TPS Score, accounting for a large difference (74%) between the two groups based on the participants' trauma history. Analyses imply the Average TPS Score is highly

sensitive (has discriminant validity) to the differences of posttraumatic play behaviors of children with a history of interpersonal trauma when compared to children considered normally developing as they engaged in CCPT.

Results from the present study add to the findings regarding the discriminant validity from the TPS pilot study (Findling, et al., 2006). The TPS pilot study investigated the use of the TPS to discriminate between the play behaviors of two clinically referred samples, one with a history of interpersonal trauma and another with no known history of interpersonal trauma. In comparing the play behaviors of the two group samples, one with a history of interpersonal trauma and another with no known history of interpersonal trauma, Findling, et., al. also found that trauma group history accounted for a large difference ( $\eta_p^2=.28$ ) in the Average TPS Score, although not at a statistically significant level. Results of the two studies indicate the Average TPS Score is able to distinguish differences in the play behaviors of children with a history of interpersonal trauma when compared to children with no known history of interpersonal trauma. As expected, these differences were larger when the group with no known history of interpersonal trauma was considered normally developing (sample from the present study) versus clinically referred to therapy (sample from the TPS pilot study).

In the Findling, et al. (2006) pilot study, the researchers reanalyzed the Average TPS Score data, omitting Repetitive Play. Scoring difficulties for this domain were noted by raters during pre- and midpoint raters' training sessions

and again at post training de-briefing. Raters reported difficulty in distinguishing the literal nature of repetitive play because they were blind to the trauma history of the children. Analysis at the domain level supported this decision as the Repetitive Play domain was the only domain that failed to detect differences between the trauma group and the group with no known history of interpersonal trauma. Analysis of the Average TPS Score - omitting Repetitive Play, yielded a statistically significant difference ( $p=.025$ ) and a large practical effect ( $\eta_p^2=.41$ ), indicating that the Average TPS Score demonstrated a higher level of discriminant validity when the Repetitive Domain was not included. Raters in the present study reported no problems in rating repetitive play, a fact that is likely explained by uniformly low scores across all children in the normally developing group. However, for comparison to the Findling et al. study, data were recalculated omitting the Repetitive Play domain, and results showed a slightly stronger relationship between trauma history and the TPS Score ( $\eta_p^2=.77$ ;  $p<.001$  at  $\alpha=.025$ ) than the finding for the Average TPS Score with repetitive play included.

Overall, these results indicate that the TPS is able to distinguish between the play behaviors of children who have experienced interpersonal trauma from children with no known history of interpersonal trauma. As expected, the TPS is more sensitive to the differences when comparing children with a history of interpersonal trauma to children considered normally developing as compared to children clinically referred. However, support for the inclusion of the Repetitive

Play domain in the Average TPS Score remains unclear. While the present study found support for the discriminant validity of the Repetitive Play domain, the pilot study did not. Findling et al. (2006) discussed concerns regarding this construct as it applies to the TPS, “It is plausible that the construct of repetitive play...was not adequately assessed in the current study due to the complexity of the construct” or possible that there is no real difference in the repetitive play of children with a history of interpersonal trauma as compared to children clinically referred with no known history of interpersonal trauma. More research is needed to examine the validity and complexities of the Repetitive Play domain; for example, one of the reported difficulties with this domain was raters’ difficulty scoring the literal nature of repetitive play because they were blind to the child’s problem or history. Future research could have therapists rate their own tapes, or provide objective raters with a detailed history of the child, or conduct a study where children’s therapists and objective raters both rate play sessions and compare results.

#### *TPS Domain Scores*

While the TPS domain scores are not intended as stand alone measurements of posttraumatic play, they are included here to provide information as to their contribution to the Average TPS Score. As shown in Tables 6-17, results from the present study indicate that children with a history of interpersonal trauma exhibit higher levels of trauma play behaviors as measured across all TPS domains than children who are normally developing, as measured

by the TPS. Although limited by small sample size, the statistical and practical significance of results imply that all domains of the TPS are highly sensitive (have discriminant validity) to the differences of posttraumatic play of children as they engage in CCPT. When compared to the findings of the TPS pilot study (Findling, et al.2006), as summarized in Table 18, results of the present study indicate across all domains a higher level of discriminant validity in detecting differences in trauma-based play behaviors of children with a history of interpersonal trauma when compared to children considered normally developing versus children clinically referred. The most notable difference in scores as discussed earlier was on the Repetitive Play domain. While the Findling, et al. study also found that trauma group history accounted for a large difference on the Intense Play, Play Disruption, Avoidant Play, and Negative Affect domains, results were not statistically significant.

As expected, results from the TPS pilot study (Findling, et al., 2006) and the present study indicate the TPS was able to discriminate a greater difference between the domain-level scores of children with a history of interpersonal trauma compared to normally developing children, than when compared to clinically referred children with no known history of interpersonal trauma. Taken together, results from both studies support the assertion by child development and traumatology experts that intense play, play disruptions, avoidant play behaviors, and expression of negative affect are part of the posttraumatic reaction in children (Erikson, 1963; James, 1994; Terr, 1983), and provide

support for the contribution of these domains to the discriminant validity of the TPS.

Results regarding the Repetitive Play domain's contribution to the discriminant validity of the TPS are less clear. Present study findings regarding the construct of repetitive play contrast with those of the TPS pilot study (Findling, et al., 2006), exemplifying the complexity of this construct. As noted above, raters in the TPS pilot study reported difficulties in scoring this domain, particularly the inability to determine if a child's repetitive play had a literal quality to it when the raters had no knowledge of the child's trauma history. Findling, et al. found that trauma group history accounted for essentially no difference ( $\eta_p^2=.00$ ) on the Repetitive Play domain when comparing the play behaviors of clinically referred children with a history of interpersonal trauma and clinically referred children with no known history of interpersonal trauma. In contrast, findings of the present study found that trauma group history accounted for a statistically and practically significant difference ( $\eta_p^2=.40$ ) on this domain when comparing the play behaviors of the trauma group from the TPS pilot study with the play behaviors of children considered normally developing, supporting its validity as a TPS domain. However when considered together, results of these two studies suggest the construct of repetitive play is complex, in particular, the assessment of *literal* quality. The fact that virtually no difference was found in the repetitive play of both clinically referred groups suggest both groups of children exhibit repetitive play behaviors when engaged in non-directed play consistent

with CCPT. Without knowledge of a child's trauma history it is very difficult to determine if the child's repetitive play is a literal representation of trauma experienced (Terr, 1983), a self-soothing activity, or even skill mastery.

#### Limitations

While these results of this study are promising, a number of limitations have been identified.

The participant number for this study was very small ( $n=13$ ) (trauma history group,  $n=6$ ; normally developing group,  $n=7$ ). Small sample size decreases the power of statistical analysis and limits generalizability of results (Thompson, 2002). Future research involving a larger sample size could enhance the statistical power of analysis.

While blind raters decreased the chance of rater bias in determining the discriminant validity, this blind dimension may have adversely affected the outcomes on the repetitive domain scores, particularly in the trauma group. According to Terr (1983), a characteristic of repetitive play is a literal nature. By being blind, raters did not know the history of the children, inhibiting their ability to judge the literalness of a child's play. Although a greater limitation on the TPS pilot study (Findling, et al., 2006), the present study was still affected. For example, the mother of one child in the normally developing group was expecting a baby two weeks after the end of the play sessions. During the sixth and seventh play sessions, the child's play included a baby repeatedly entering the doll house and upturning all the furniture and people. With the rater being blind to

the child's history, it was difficult for the rater to determine the play was literal.

The TPS, a five-point Likert scale, is a measurement of posttraumatic play behaviors believed to be typical of children who have a history of interpersonal trauma (Findling, et al., 2006). In adding a normative population, the scale was applied to normally developing children. As expected, these children's play exhibited low level of behaviors as measured by the TPS, often resulting in zero-variance of ratings. Zero-variance of scores was problematic in the calculation of correlational estimates of interrater reliability.

#### Implications

Experts in traumatology and play therapy (Gil, 1991; James, 1994; Terr, 1983) have written on the construct of posttraumatic play, and its characteristics and effects on children. Findling, et al. (2006) wanted to measure the posttraumatic play behavior of children in play therapy over a series of sessions. A review of the literature failed to identify an instrument capable of this measure. The lack of a compatible instrument led to the development of the TPS. The TPS is designed to detect the presence of posttraumatic play in children as they engage in play therapy as measured by the Average TPS Score.

The results of this study provide strong support that play behaviors related to posttraumatic play (Gil, 1991; James, 1994; Terr, 1983) of children with a history of interpersonal trauma significantly differ from behaviors of children developing normally with no known history of interpersonal trauma. Furthermore, the results show that the TPS detected statistically significantly higher scores of



posttraumatic play across domains (intense play, repetitive play, play disruption, avoidant play, and negative affect) and overall, provide strong support for the discriminant validity of the TPS. Although all domains of the TPS did show significantly higher scores in the trauma group as compared to the normally developing group, these domains are not intended to be a stand alone measure of trauma. Domain scores were analyzed to determine their contribution to the overall construct of posttraumatic play. Results indicated strong support for the inclusion of the Intense Play, Play Disruption, Avoidant Play, and Negative Affect domains of the TPS, mixed results were found regarding the domain of Repetitive Play.

This study contributed to the validity of the TPS through the addition of a normative sample. However, there is a need for additional studies in these areas. Current results, along with past results (Findling, et al., 2006), have demonstrated a high level of interrater reliability, indicating that with formal training and the use of the TPS User's Guide, objective raters can be trained to use the TPS (in a reliable way) to evaluate the complex play behaviors associated with trauma (James, 1994; Terr, 1983). Expansion of the TPS User's Guide and a creation of video-recorded training vignettes would enhance the training process.

Implications of this study regarding the ability of the TPS to discriminate play behaviors of children with a history of interpersonal trauma indicate a number of implications. First, researchers can utilize the TPS to collect data on

the frequency, intensity, duration, and patterns of posttraumatic play behaviors in children. Second, the TPS can be used in the academic setting in courses on play therapy, child development, and trauma to facilitate an increased understanding of the characteristics, process, and impact of posttraumatic play. Third, researchers and therapists can employ the TPS in identifying children who may have potentially been traumatized, as well as a means of treatment planning and evaluating a child's progress. Fourth, therapists can use the TPS to educate parents and teachers about the play behaviors typical of children with a history of interpersonal trauma and in the identification of children who may benefit from therapeutic treatment. Finally, the results of this study support the assertion that there are differences in the how children who have experienced trauma play as compared to children who are considered to be developing normally.

#### Recommendations

Based on the results of this study, the following recommendations for future research are offered:

1. Researchers and therapists appropriately trained on the TPS can use the scale to increase knowledge of the needs of children who have experienced trauma.
2. Additional research using a larger sample size for each group would increase the power of statistical analyses.
3. Additional research related to the reliability and validity of the TPS is needed.

4. Additional research with specific populations to develop norms based on trauma history, type of history, age, gender, and ethnicity.
5. Research looking at the posttraumatic play behaviors with a history of interpersonal trauma over extended sessions (i.e., 30 or more sessions) would increase knowledge of how the play of children with a history of interpersonal trauma changes through play therapy, including patterns of change over time.
6. Research to compare results of the TPS with other well-established measures of children's behaviors would provide additional knowledge of the validity of the instrument.
7. Development of a more comprehensive users' guide and accompanying video-recorded training vignettes would facilitate training on the TPS.
8. Research with therapists serving as raters for their own play therapy sessions may increase the sensitivity of the instrument on domains in which literalness of play is part of the construct (i.e., intense play and repetitive play), or providing objective raters with detailed history.
9. Research comparing results of children's therapists serving as raters to the ratings of objective raters on the same children.

#### Concluding Remarks

The TPS (Findling, et al., 2006), built upon Terr's (1983) construct of posttraumatic play, is an observation-based assessment designed to measure the play behaviors of children with a history of interpersonal trauma as they

engage in CCPT. The TPS was designed to provide clinicians with: 1) a developmentally responsive means of measuring posttraumatic responses in children based on direct observations of play behaviors; and 2) an increased understanding of the play therapy behaviors of children with a history of interpersonal trauma in order to enhance the clinical treatment of this vulnerable population (Findling, et al.).

The purpose of the present study was the continuation of the development of the TPS by adding a normative sample. This addition tests the ability of the TPS to discriminate between the play behaviors of children who have been clinically referred with a history of interpersonal trauma and children considered normally developing with no history of interpersonal trauma as they engage in play therapy. The addition of a normative sample would also increase the robustness and reliability of the TPS (Friedrich, et al., 1992), as well as its diagnostic utility and discriminant validity (Malec, et al., 1992).

While limited by small sample size, results of the present study provide strong support for the discriminant validity of the TPS to distinguish the play behaviors of children with a history of interpersonal trauma with children considered to be developing normally. Statistical and practical significance was found for the Average TPS Score and each of the five TPS domains (intense play, repetitive play, play disruption, avoidant play, and negative affect). Findings for the Average TPS Score, considered by Findling, et al., (2006) as the most stable and important indicator of posttraumatic play behaviors in children, are

particularly noteworthy and show a large level of discriminant validity across both the present study and the original TPS study (Findling et al.). Although individual domains were not intended to be used as stand alone measures, they were analyzed to measure their contribution to the overall construct of posttraumatic play (Findling et al; Terr, 1983). Present study findings indicated strong support for the inclusion of all domains of the TPS, while the original study showed strong support for all domains with the exception of Repetitive Play. Mixed findings related to the inclusion of this domain warrants further study.

Results of the present study, along with the TPS pilot study (Findling, et al., 2006), support reliability and validity for the TPS. As expected, the TPS demonstrated a higher level of discriminant validity in detecting differences between children clinically referred with a history of interpersonal trauma as compared to normally developing children with no known history of interpersonal trauma, than it did in detecting differences between the group of children with a history of interpersonal trauma when compared to a group of children clinically referred for treatment, but with no known history of interpersonal trauma.

Interrater reliability indicates that with formal training using the TPS manual, objective raters can be trained to use the TPS to reliably evaluate the complex play behaviors associated with trauma (James, 1994; Terr, 1983).

The greatest limitation to the present study and the pilot study is small sample size. The process of data collection and rating of eight play sessions per participant by trained raters is very consuming of time and resources (Findling, et

al., 2006). The next step in the development of the TPS is the development of a larger sample to develop demographical normative data (i.e. gender, age, ethnicity, and presenting problem).

The most significant implication from the present finding is the potential of the TPS to increase knowledge of the frequency, intensity, duration, and patterns of posttraumatic play behaviors in children. The information attained by the TPS can provide an increased understanding of the characteristics, process, and impact of posttraumatic play, an understanding that could be applied in courses in play therapy, child development, and trauma. The TPS could also be utilized in the diagnosis, treatment planning and evaluation of treatment progress of children who have experienced trauma. Finally, results from the TPS can be used to educate parents and teachers in the identification and understanding of children and posttraumatic play.

Although limited by small sample size, the results of the present study are promising and suggest that the TPS has strong discriminant validity. Further research on the TPS could strengthen its psychometric properties and add to its utility in assessing and understanding posttraumatic play behaviors of children with a history of interpersonal trauma.

APPENDIX A  
INFORMED CONSENT FORM

## University of North Texas Institutional Review Board

### Informed Consent Form

Before agreeing to your child's participation in this research study, it is important that you read and understand the following explanation of the purpose and benefits of the study and how it will be conducted.

Title of Study: Development of the Trauma Play Scale: An addition of a normative sample.

Principal Investigator: Charles E. Myers, a graduate student in the University of North Texas (UNT) Department of Counseling and Higher Education. Principal Investigator is a Licensed Professional Counselor, National Certified Counselor, and Registered Play Therapist-Supervisor.

**Purpose of the Study:** You are being asked to allow your child to participate in a research study which involves the further development of the Trauma Play Scale (TPS), an observation-based instrument designed to distinguish the differences of play behaviors of children with a history of trauma versus normally developing children. Six children, ages five through seven years will participate in this study. All participants will be normally developing children with no history of trauma, and no existing concerns that would normally lead to bringing your child to play therapy. Your child was recruited for this study because he or she is a normally developing child. The Principal Investigator will video record your child's play sessions and use the TPS to better understand the play behaviors of normal children.

**Study Procedures:** Your child will be asked to participate in eight once-per-week 30-minute play sessions at either the Child and Family Resource Clinic (CFRC) or the Counseling and Human Development Center (CHDC) both located on the University of North Texas campus. In total, participation in this study will take about four hours of your child's time.

**Foreseeable Risks:** The potential risks involved in this study are negligible, no more than would occur in everyday life. Your child may experience discomfort during the first play session, as most children are somewhat anxious with new situations. The principle investigator is trained in working with children and will provide a caring environment intended to reduce such discomfort. If you child's discomfort is continues, the principle investigator will end the play session.

**Benefits to the Subjects or Others:** This study is not expected to be of any direct benefit to your child other than most children enjoy playing. This research study is designed to



help therapists better understand the differences of play behaviors of normally developing children as compared to children with a known history of trauma. Although the children who participate in this study may not benefit immediately as a result of participating in this study, other children who participate in play therapy in the future will benefit from this study because their therapists will understand them better. Psychologists, psychiatrists, therapists, counselors, social workers, child protective workers, judges, police officers, law-makers, teachers, and others who work with children will also be able to learn more about the differences of normal children and children who have experienced a traumatic event, based on their behaviors in play therapy.

**Compensation for Participants:** Your family will receive a \$10 Wal-Mart gift card and a chance to win a \$50 Wal-Mart gift card as compensation for participation. \$10 gift cards will be distributed upon the completion of the eight play sessions, the \$50 gift card will be drawn upon the completion of play sessions by all participants.

**Procedures for Maintaining Confidentiality of Research Records:** The Principal Investigator will keep all of the information from this study private (confidential) and will keep all of the video recordings and written records locked in a secured location. The Principal Investigator will use a number code, instead of names, on the videotapes and written records so that the neither you nor your child's identity will be displayed. These number codes will be kept separate from your child's video recordings and written records. The Principal Investigator and all of the members of the research team are counselors (therapists) and have promised to follow the ethical guidelines of the American Counseling Association, which states that they must keep all client's personal information private (confidential). The confidentiality of your child's individual information will be maintained in any publications or presentations regarding this study.

**Questions about the Study:** If you have any questions about the study, you may contact Charles Myers at telephone number 940-565-3864, or the faculty advisor, Dr. Sue Bratton, UNT Department of Counseling and Higher Education, at telephone number 940-565-3864.

**Review for the Protection of Participants:** This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

**Research Participants' Rights:** Your signature below indicates that you have read or have had read to you all of the above and that you confirm all of the following:

- Charles Myers has explained the study to you and answered all of your questions. You have been told the possible benefits and the potential risks and/or discomforts of the study.
- You understand that you do not have to allow your child to take part in this study, and your refusal to allow your child to participate or your decision to withdraw

- You understand why the study is being conducted and how it will be performed.
- You understand your rights as the parent/guardian of a research participant and you voluntarily consent to your child's participation in this study.
- You have been told you will receive a copy of this form.

\_\_\_\_\_  
 Printed Name of Parent or Guardian

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

**For the Principal Investigator or Designee:** I certify that I have reviewed the contents of this form with the parent or guardian signing above. I have explained the possible benefits and the potential risks and/or discomforts of the study. It is my opinion that the parent or guardian understood the explanation.

\_\_\_\_\_  
 Signature of Principal Investigator or Designee

\_\_\_\_\_  
 Date

### Child Assent Form

You are being asked to be part of a research project being done by the University of North Texas Department of Counseling and Higher Education.

This study involves learning how normal children play as compared to children who have experienced a trauma, or very stressful event.

You will be asked to come to the playroom and play for thirty minutes each week for eight weeks that will take about a total of four hours.

If you decide to be part of this study, please remember you can stop participating any time you want to.

If you would like to be part of this study, please sign your name below.

\_\_\_\_\_  
 Signature of Child

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Principal Investigator or Designee

\_\_\_\_\_  
 Date

APPENDIX B  
TRAUMA PLAY SCALE

## Trauma Play Scale (Feb. 21, 2004)

Child's First Name: \_\_\_\_\_ Therapist's Name: \_\_\_\_\_ Session Number: \_\_\_\_\_ Rater's Name: \_\_\_\_\_

1. **Intense Play:** Child is extremely focused/absorbed in play that seems to hold specific meaning; at extreme, play has driven quality-lacks joy / spontaneity.
  - 1= *Not Descriptive* No intense play; play does not seem to hold specific meaning for child; relaxed/spontaneous/fun (ex: expl., dev mastery, noncommittal)
  - 2= *Somewhat Descriptive* **Very low** degree of intensity; child is focused on play that seems to hold specific meaning, (more spontaneous / relaxed).
  - 3= *Moderately Descriptive* **Low to medium** degree of intensity; child is **absorbed** in play that seems to hold specific meaning for child.
  - 4= *Highly Descriptive* **High degree** of intensity; child is **deeply** absorbed in play that seems to hold specific meaning for child.
  - 5= *Extremely Descriptive* **Extreme** degree of intensity; child is **extremely** absorbed in play, to degree play has a driven quality and lacks joy / spontaneity

\* Note: Rate the **highest level of intensity** that occurs during the segment.
2. **Repetitive Play:** Child returns to specific play behaviors, play sequences or themes that seem to hold specific meaning or importance to child.
  - 1= *Not Descriptive* Does not engage in repetitive play during segment.
  - 2= *Somewhat Descriptive* Returns to previous toys/play behaviors, but this play does not appear to hold same meaning as before (UNCLEAR).
  - 3= *Moderately Descriptive* Child **clearly returns** to a previous play sequence or theme and plays this out **less than half** of segment.
  - 4= *Highly Descriptive* Child **clearly returns** to a previous play sequence or theme and plays this out **more than half** of segment.
  - 5= *Extremely Descriptive* Child **clearly returns** to a previous play sequence or theme; engages in repetitive play **continuously** during segment.

B/T=Child repeats play behaviors/play sequence from previous session(s). This is Between-Session repetitive play; rate using number & code.  
 Sus= Sustained repetitive play (child returns to sequence and plays this sequence out over one or more segments).
3. **Play Disruption:** Sudden shift in play; at extreme, shift is abrupt and clearly in response to child's anxiety/discomfort related to play & child is unable to comfort or soothe self; child remains highly distressed.
  - 1= *Not Descriptive* Child **does not exhibit** any obvious shift or play disruption during segment.
  - 2= *Somewhat Descriptive* **Obvious** shift in play that **might be in response to anxiety/discomfort related to play** but anxiety/discomfort is **unclear**.
  - 3= *Moderately Descriptive* **Sudden** shift in play that **appears to be** in response to anxiety / discomfort related to play; child appears to **'recover' quickly**, continues to play (previous play or new play sequence or theme).
  - 4= *Highly Descriptive* **Abrupt** shift in play, **clearly** in response to anxiety/discomfort related to play; child **uses self-soothing play** to calm self.
  - 5= *Extremely Descriptive* **Abrupt** shift in play, **clearly** in response to anxiety/discomfort related to play; child **remains highly distressed during segment**.
4. **Avoidant Play Behavior:** Child avoids contact w/ therapist; at extreme, child is clearly rejecting of relationship with therapist and seems to lack trust in therapist.
  - 1= *Not Descriptive* Child does not exhibit avoidant / distancing behavior; child seems mostly able to connect w / include therapist in appropriate manner.
  - 2= *Somewhat Descriptive* Child exhibits **mild** level (occasional) avoidance / distancing OR **inappropriate** connecting behavior.
  - 3= *Moderately Descriptive* Child exhibits **moderate** level of avoidance / distancing (OR **vacillates** equally between connecting and distancing behavior).
  - 4= *Highly Descriptive* Child exhibits a **high** level of avoidance / distancing (child seems to have a strong need to **avoid** contact with therapist).
  - 5= *Extremely Descriptive* Child exhibits **extreme** level of avoidance / distancing & **actively rejects** therapist (child appears to display intense need to avoid contact with therapist).
5. **Expression of Negative Affect:** The degree to which child expresses negative affect during segment. (anxiety, flat affect, anger, sadness, fear, etc).
  - 1= *Not Descriptive* Child does not express negative affect (child expresses contentment, joy, relief, curiosity, interest, excitement, etc.)
  - 2= *Somewhat Descriptive* **Mild** negative affect (affect mostly pos. w/ occasional mild anxiety, frustration, anger, etc.) OR **incongruent** positive affect.
  - 3= *Moderately Descriptive* **Moderate** negative affect (may include incongruent pos. affect) OR affect vacillates equally between Pos. and neg. feelings.
  - 4= *Highly Descriptive* **High** degree of negative affect, (may include incongruent pos. affect); OR affect is mostly negative with occ. mild positive affect.
  - 5= *Extremely Descriptive* **Extreme** negative affect (may include incongruent positive affect); child expresses high level of anxiety, anger, sadness, fear, or flat (blunted/constricted) affect.

Segments (minutes) →→	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	Total
1. Intense Play										
2. Repetitive Play										
3. Play Disruption										
4. Avoidant Play										
5. Negative Affect										
<b>Total Score</b>										

**Note on Back:** Significant Play Behavior/ Play Sequence / Play Theme, **ALWAYS NOTE IF CHILD'S PLAY SEEMS TO HAVE LITERAL QUALITY:**

Significant Play Behavior/ Play Sequence / Play Theme, **ALWAYS NOTE IF CHILD'S PLAY SEEMS TO HAVE LITERAL QUALITY:** (NOTE SEGMENT NUMBER, then describe child's play and relevant interaction and/or affect, SPECIFICALLY WRITE "LITERAL PLAY" if applies)

Significant Verbalizations (indicate Child or Therapist):

Developmental Functioning (please note significant regressive behavior or regressed general functioning):

Additional comments regarding this session:

APPENDIX C  
TRAUMA PLAY SCALE USER'S GUIDE

## Trauma Play Scale – User’s Guide

### **Introduction:**

The Trauma Play Scale assesses aspects of play that are consistently discussed in the trauma literature as qualities of play of traumatized children (especially Terr, 1991; James, 1994; Nader & Pynoos, 1991). The Trauma Play Scale is designed to measure the quality of different play categories; that is, the rater should consider the degree to which the type of play is present in each segment, rather than the frequency with which the item is present. Terr (1983) described a type of play that she viewed as characteristic of children who have experienced trauma; she labeled this play ‘post-traumatic play.’ Post-traumatic play was described as compulsive, repetitive, literal (lacking *as-if* quality), and insufficient for reducing anxiety. This scale is designed to measure specific play behaviors that are relevant to the concept of post-traumatic play.

### **Directions:**

Rate each five-minute segment on the appropriate scale. Continue until nine five-minute segments are completed. If session is longer than 45 minutes, continue to rate in five-minute segments until session is finished. Record additional ratings and note the length of additional segments in the comments section of the rating form. Review previous session rating forms before rating next session in order to better assess repetitive play between sessions. Rate each segment as a complete unit; ratings should reflect your overall impression of the segment. You will be given a brief summary of background information on each child whose tapes you rate. The background summary will provide the child’s first name, age, gender, ethnicity, family constellation, and presenting problem.

**DO NOT:** Compare this child to how this child was earlier in the session or in previous sessions. For example, if a child has been fairly contained over several sessions and then in the next session is much more expressive (for her), compare the child at each level to other children you have encountered. This child’s high degree of excitement might equal most children’s moderate degree of excitement.

**DO:** 1) Compare the child client to other children that you have experienced in play therapy (as therapist, supervisor, observer, etc.).

2) Keep a global perspective. If you observe several sessions and the ratings of later sessions influence how you interpret earlier sessions, you may go back and change your ratings on the earlier sessions. For example, a child may exhibit a specific play sequence and it is unclear to you whether or not the play was meaningful. If the play sequence is repeated in subsequent sessions, this may influence your interpretation of the earlier session and you may decide that the play was in fact meaningful (or intense, or whatever).

**Note about Toy/Play Theme Checklist:** Use the accompanying Toy/Theme Checklist to record child’s play behavior to help capture more detailed overview of what the child did in each session – this form will be particularly helpful in determining repetitive play and will help the researcher compile anecdotal data to add to the richness of the findings.

1. **Intense Play:** Child is extremely focused/absorbed in play that seems to hold specific meaning to the child; at extreme, play has a driven quality and lacks joy/spontaneity. This description is based on the writings of Terr (1991). Intensity may be considered the degree to which a child is deeply absorbed or engaged in a particular play sequence.

**Examples:**

*Play does not seem to hold specific meaning for child:* For example, a girl stacks blocks to build a tower and she seems to be challenging herself to stack the blocks as high as possible without letting them fall. This is an example of a child engaged in developmental mastery play; she is developing skills through her play but the play itself does not seem to hold specific, personal or symbolic meaning for the child.

*Child is absorbed in play that seems to hold specific meaning to child, still relaxed and spontaneous:* For example, a girl carefully loads the 'little people' into the school bus and announces that the children are on their way to school. She laughs as she explains that this school bus can fly (and it takes off into the air). This example describes a child who is focused on play that clearly has some specific meaning to the child, yet the child is relaxed and spontaneous (creative, free).

*Child is deeply absorbed in play:* As child engages in a meaningful play sequence, the child has an intense and focused facial expression. For example, child is painting a picture that seems to have symbolic meaning for the child and she peers at the picture, is quiet, and puts a lot of energy into carefully finishing each detail. At the extreme, child may be so deeply absorbed in play that child seems oblivious to therapist's presence in room. Or, a child may be so deeply engaged in the play that he or she feels the need to narrate every detail of the play sequence to the therapist.

*Child's play lacks joy or spontaneity:* For example, a boy plays with puppets and tells a story but the story is not very imaginative and the boy does not seem to experience positive feelings as he tells the story. Child does not seem to derive pleasure from play, yet continues to engage in play.

*Child's play has a driven quality:* For example, a girl insists on playing 'house' where she is the daughter and the therapist is the mother. The child insists on playing out the sequence in a predetermined way and may become very upset if a particular toy or item in the playroom is out of place or has been changed in some way (e.g., another child painted on Bobo).

Play that has a driven quality often seems ritualistic and is often repetitive. A child who is 'driven' seems to have a sense of urgency about the play; that is, the child seems to feel, "I must play this" or "I must play it this way."

**Clarifications for Raters:**

- Intense play should be rated according to the degree of intensity that is present in the segment as a whole. The quality of the intensity is much more important than the frequency or amount of intense play; therefore, if a child has as little as a few seconds of extremely intense play, that segment may be rated as extremely intense if this seems true in your professional opinion.
- Intense play is often accompanied by strong expression of affect. However, some children engaged in extremely intense play will have a blank, expressionless face (flat affect). Although some children may engage in intense play that is accompanied by positive affect, this rating scale is concerned with intense play that lacks joy or spontaneity (usually accompanied by negative affect).
- Play that is repetitive is often, but not always intense play. That is, play may be rated as intense without being repetitive.
- Remember that intense play must be meaningful play, and the meaningful play is play that seems to hold specific meaning to the child. Exploratory and developmental mastery play, may NOT be rated as intense play (as defined in this study).



- A rating of 5 on the intensity of play scale should be reserved for extreme cases such as when the child's play has a very driven, joyless quality or child has physiological signs of arousal such as rapid or labored breathing, wetting or soiling, etc.
- Rate the highest level of intensity that occurs in the segment. That is, if a child has a very brief episode of extremely intense play during a five-minute segment, then the segment as a whole may be rated high on the intensity subscale. The quality of the play is more important than the quantity of intense play.

2. **Repetitive Play:** Child returns to specific play behaviors, play sequences or themes that seem to hold specific meaning or importance to child.

Repetitive play may occur within one session or over several sessions (Terr, 1991). This must be a return to meaningful play. Between-Session repetitive play occurs when a child returns to play sequences or themes that the child engaged in during previous sessions (any previous session, not just most recent session). (Nader & Pynoos, 1991)

**Examples:**

*Child returns to a previous play sequence that seems to hold specific meaning for the child:* For example, a girl who consistently fed the baby doll dirty water from the bottle repeats this play sequence in subsequent segments or sessions.

This is an example of a child returning to a specific play sequence; this is a concrete repetition of play that usually involves the child using the exact same toys as in previous segments/sessions.

*Child returns to a previous play theme that seems to hold specific meaning for the child:* For example, a girl plays out a sequence wherein a baby elephant goes to school and nobody likes him. In a subsequent session, she plays out a scene wherein a tiger goes to the grocery store and people make fun of him. This is an example of when a play theme (relationship rejection) is repeated.

*Child engages in repetitive verbal play:* For example, a boy tells a story about the pirates fighting aliens in one session and then in a subsequent session he tells a story about pirates fighting Vikings. This is an example of a verbal repetition of a theme (aggression).

**Clarifications for Raters:**

- Repetitive play may occur between segments within a session or between two (or more) different sessions. If the repetitive play occurs between two (or more) different sessions, you should indicate this on the rating form with B/T (for Between) next to the number rating. Repetitive play that occurs continuously from one segment into the next segment should be rated as repetitive play in both segments. For example, if a child is playing in the dollhouse and the timer goes off (time to rate the segment), score the dollhouse play as repetitive because it occurs again in the next segment. Repetitive play indicates either a return to a previous play sequence or theme, OR the continuation of a previous repetitive play sequence or theme.
- Keep in mind that all repetitive play must first qualify as meaningful play; that is, play that seems to hold specific meaning to the child. So, a child who repetitively throws darts at the dartboard (developmental mastery play) should not be rated as having repetitive play. Additionally, exploratory play is not considered meaningful play in this study, so exploratory play may not be rated as repetitive play.
- Between-Session repetitive play cannot be judged accurately in the first session that you rate; only rate within-session repetitive play during the first session of a series.
- Self-soothing behavior (see glossary) may be rated as repetitive play when appropriate.
- Repetitive play versus Sustained play. If a child engages in a play sequence for an extended period of time, this is considered sustained play. The sequence is only considered repetitive if the child has played out this sequence before—either in previous segments or previous sessions. Do not rate sustained play as repetitive play unless the

- Play disruptions within a repetitive play sequence. Play disruptions may occur within a repetitive play sequence and they do not affect whether or not the play is scored as repetitive. That is, if a child has a brief play disruption and resumes the repetitive play sequence, then the play sequence should still be scored as repetitive. Use your professional judgment in determining the degree of repetitiveness.
3. **Play Disruption:** Sudden shift in play away from a play sequence that seems to hold specific meaning to the child; at extreme, abrupt shift that is clearly in response to child's anxiety/discomfort related to play themes or feelings expressed and child is unable to soothe or comfort self; child remains highly distressed. (Erickson, 1963, p. 223; Howe & Silvern, 1981; Perry & Landreth, 1991).

**Examples:**

*Child has an obvious shift that might be related to child's emotional discomfort, but this is unclear.* For example, a boy plays with the soldiers in the sandbox and the soldiers are fighting; he then abruptly shifts over to playing with the airplane. It is unclear whether the boy became distressed in reaction to his play themes or feelings expressed in the sandbox play; he seemed to have some level of emotional investment in that play, yet it was difficult to determine whether he was upset or simply ready to move on to a different play sequence.

*Child has a sudden shift in play that appears to be in response to child's anxiety/discomfort related to play themes but child appears to 'recover' quickly and continues to play (previous or new play themes/sequence):* For example, a boy playing with the soldiers appears to become upset when he puts the 'commander' in jail; he shifts suddenly away from that theme yet he quickly returns to the same theme and seems satisfied with his new ending; that is, the 'commander' escapes from jail.

*Child has an abrupt shift away from a meaningful play sequence:* For example, a girl consistently plays out a sequence wherein the mother doll moves out and everyone in the family is sad; the girl seems to invest a high degree of sadness into the play and then her body becomes stiff, she looks away and then asks when she can go home. She does not return to the previous play. This is an example of a child who has had a play disruption in response to her intense feelings of sadness expressed through her play.

*Child is able to engage in self-soothing behavior after a play disruption:* For example, a little girl plays out a sequence wherein the mother doll dies and the baby doll is crying; she then has a play disruption in response to her intense emotional distress. The girl goes to the therapist and gives therapist a hug, sighs a few times, and returns to the previous play theme.

This is an example of a child who is able to use self-soothing behavior to 'recover' from the emotional distress related to a play disruption. Another example: A child becomes visibly distressed related to revenge play themes; he has a play disruption and moves abruptly to playing with the cash register, which seems to be a comfort sequence for him (he seems to feel very confident with the cash register play, and it seems to calm him).

*Child is unable to engage in self-soothing in response to a play disruption:* For example, a boy who plays out themes of one dinosaur seeking revenge on another dinosaur becomes so overwhelmed that he has a play disruption. He does not seek out the therapist for support and he

does not return to familiar play that is soothing; rather, he maintains an extremely high level of emotional distress, perhaps breaking limits or distancing from therapist.

**Clarifications for Raters:**

- A play disruption involves an internal shift; this may not always be apparent. However, there is often a physical sign that the child seems to be experiencing a play disruption. For example, the child may 'freeze,' stare off, pause, shudder, etc. in conjunction with the abrupt shift in play behavior.
- Play Disruptions can only happen within a meaningful play sequence. Therefore, if a child abruptly shifts from one type of developmental mastery play or exploratory play to another, this is NOT considered a play disruption. Play disruptions may occur within a meaningful verbal play sequence. For example, the child tells the therapist a story about a monkey who lost his mother (and this seems meaningful to the child) and then the child abruptly shifts away from this story line, this may be considered a play disruption. (This often occurs with adults! They get overwhelmed with anxiety and change the subject).
- A shift in play could occur in response to the therapist's behavior (i.e., child is mad because therapist set limit). Shifts in response to the therapist's behavior are not considered play disruptions as defined in this study.
- Self-Soothing behaviors may include child-directed comforting behaviors, including seeking out comfort from therapist.
- Self-Soothing behavior may or may not take the form of play, per se. A child may use simple sensory-based play for self-soothing (such as rocking, singing, sifting sand, etc.) or he or she may return to a familiar play sequence (such as cash register play or lining up items, etc.) as a form of self-soothing.
- A highly distressed response to a play disruption will always include a high level of negative affect (including flat affect).

4. **Avoidant Play Behavior:** Child avoids contact w/ therapist; at extreme, child is clearly rejecting of relationship with therapist and seems to lack trust in therapist.

**Examples:**

*Child seems mostly able to connect with or include therapist in appropriate manner:* For example, a boy plays in the sandbox and narrates the story of the people building a town. He checks in with the therapist through eye contact and through his verbalizations. He may pull back from contact with therapist occasionally, but he is usually able to connect with therapist in a healthy way.

*Child exhibits inappropriate connecting behavior:* For example, a girl in her second session says in an overly 'sweet' voice, "I missed you today." The child's expression does not seem genuine (possibly pleasing, charming, or manipulative).

*Child vacillates equally between connecting and avoidant behavior:* For example, a boy alternates between talking to therapist as he plays with cash register and hiding his play with the whistle. Child actively rejects relationship with therapist: For example, a girl plays with the baby dolls with her back to the therapist; she avoids eye contact, does not verbalize, and does not respond to therapist's comments.

*Child seems to have an intense need to avoid contact with therapist.* For example, a boy hides behind the puppet theater for almost the entire session. This child is clearly extremely anxious about connecting with therapist.

**Clarifications for Raters:**

- A rating of 5 on the distancing scale should be reserved for a child who appears to be extremely fearful or reluctant to build a relationship with the therapist.
- Remember to rate the child in this segment in comparison to all other children you have experienced (as a therapist, supervisor, or observer). Do not compare this child's

- A child who is expressing anger towards the therapist may or may not be rejecting of the relationship with the therapist. If a child is yelling at the therapist, trying to hit the therapist, etc., this does not necessarily mean that the child is rejecting of the relationship with the therapist (in fact, many children will not show angry feelings until they have a strong relationship with the therapist). As you are rating tapes, remember that the detached play behavior item is more concerned with the child's general ability to form a trusting relationship with the therapist than with the feelings expressed by the child.
- A child who does not speak to the therapist may or may not be rated as having avoidant behavior. For instance, if the child does not speak and yet checks in with the therapist non-verbally (makes eye contact, shows therapist artwork, etc.) then the child may not be exhibiting avoidant play behavior. However, if you feel that the child seems to avoid speaking to the therapist due to anxiety around the relationship with the therapist, then the child probably is exhibiting avoidant play behavior.

5. **Expression of Negative Affect:** The degree to which child expresses negative affect during segment. (anxiety, flat affect, anger, sadness, fear, etc).

**Examples:**

*Child does not express negative affect during segment:* For example, a girl plays the entire segment and seems content and satisfied with her play.

*Child expresses a mild negative affect during segment:* For example, a boy grabs a toy, seems dissatisfied with it, and throws it in the trash can, then repeats this process.

*Child expresses incongruent positive affect during segment:* For example, a girl keeps asking when she can go see her Mom, but then says to the therapist, "I missed you today."

*Child expresses a high degree of negative affect through symbolic play:* For example, a boy plays out a sequence wherein the soldiers kill each other and there is no hope of anyone surviving.

*Child expresses a high degree of negative affect:* For example, a girl wants to keep the tiara and take it home with her; after the therapist sets limits on this behavior, the girl says, 'you're not my friend anymore!' and tells therapist to 'shut up!'

**Clarifications for Raters:**

- Listen to therapists' reflections of feelings as a guide as you are assessing child's affect. In general trust that the therapist has correctly identified the child's affect, but if you strongly disagree with the therapist's identification of the child's feelings go with your own opinion.
- Rate affect based on the general affective tone of the segment; what is the predominant feeling tone in the segment (this is less about frequency and more about overall tone).
- Pay careful attention to the child's non-verbal cues when assessing the quality of the child's affective expressions. Facial expressions and body language may give important clues to the child's affective state. Body language may include gestures, the degree to which the child engages in gross-motor play (or is inhibited), or the general degree of tension the child exhibits (i.e., shoulders high, arms tight, fingers clenched, etc.). Motor tics (repetitive motions usually associated with high anxiety) are particularly important indicators of the child's emotional state.

## Glossary of Terms

**Abrupt Shift:** The term abrupt indicates something that is sudden or unexpected. Shift indicates a change of course. An abrupt shift in play is a sudden or unexpected change in the flow of the play. An abrupt shift in play may leave the therapist or observer feeling surprised or confused about what just happened in the session. The therapist or observer may experience a sense that the play sequence was incomplete.

**Affective Expression:** The term affective expression indicates the feelings expressed by the child. A child may express feelings through words, behaviors, facial expressions, or play themes (i.e., if the characters in the child's fantasy play are expressing feelings, then the play may be described as having affective expression).

**Ambivalent Affect:** Ambivalent affect is present when the child seems to vacillate between expressions of positive and negative affect (either in play or in relationship with therapist).

**Child's inner world:** The term 'child's inner world' signifies the internal wishes, conflicts, desires, feelings, or other internal experiences within the child.

**Constricted Affect:** The term constricted affect indicates that a child expresses only a few emotions and is typically quite controlled (the child is controlling his own emotions, not controlling others). A child with constricted affect lacks spontaneity or creativity and does not express either strongly positive or strongly negative feelings. The therapist or observer may feel somewhat bored in response to the child's lack of emotional expression.

**Deeply Absorbing Play:** This term indicates that the child is fully engrossed in his or her play. The child directs his or her full energy and complete attention to the play. The child may seem to become 'lost' in the play to a degree that he or she is surprised or jolted when interrupted (i.e., children who are engaged in deeply absorbing play may have difficulty leaving the playroom).

**Developmental Mastery Play:** This term indicates play that is related to the child's desire to master developmental tasks, such as counting, stacking, organizing, spelling, etc. Developmental mastery play does not typically have symbolic content. Some children may use developmental mastery play as a self-soothing play sequence.

**Driven Quality:** When play is described as having a driven quality, this means that the play seems forced or that the play seems to take on a sense of momentum. A child whose play has a driven quality may appear to have an urgent need to play out the sequence in a specific manner.

**Play that Holds Specific Meaning to Child:** When a child engages in play that has specific meaning to the child, he or she seems to engage in the play for no other reason than that the play is somehow personally satisfying to the child. This means that the play must be internally motivated and that the child seems absorbed in the play.

**Literal Quality:** Play is said to have a literal quality when it seems clear that the child is playing out real-world events or situations that the child has witnessed or experienced.

**Negative Affect:** Negative affect includes painful feelings such as anger, sadness, fear, anxiety, or flat (constricted, blunted) affect.

**Positive Affect:** Positive affect includes pleasant feelings, such as feelings of excitement, happiness, joy, relief, curiosity, interest, etc.

**Self-Soothing Behavior:** Child seems to use play or verbal behavior to calm or soothe self. Child shifts from intense play to play that is more relaxed and spontaneous (shift may be gradual, or sudden, as in a play disruption). Child uses simple, sensory-based play to calm self; e.g., sifting sand, touching something soft, gently stroking baby doll or hugging stuffed animal. Child returns to play that is familiar and simple, such as cash register play, painting, ordering objects, counting, lining things up. Child may use an object, especially a blanket or stuffed animal as a transitional object. (Teitelbaum, 1998).

**Spontaneity:** Play that is Spontaneous is typically very creative and free. The child who exhibits spontaneity may move quickly from one play sequence to the next, or may engage in sustained play that is highly energetic and fanciful. Spontaneous play is not repetitive, driven, or intense. It is usually joyful and carefree.

### **Directions for Completing the Toy and Play Theme Checklist**

The purpose of the Toy and Play Theme Checklist is to allow the researcher to connect the types of play behaviors that occur within a given segment with the specific toys and play themes that occur within that segment. For example, the researcher should be able to look at segment 11-15 and know that the intense play that occurred during this segment was connected to the child's play with the dollhouse, and that the child seemed to be exploring themes of death and loss through this dollhouse play.

#### **Directions:**

Review the list of play themes at the top of the page, as well as the list of toys and play materials listed on the left-hand side of the page. Please become very familiar with these lists so that you can quickly and accurately rate the child's play themes and toys used. For each five-minute segment, you will indicate the toys used and play themes expressed during that segment. You will also indicate the type of play that was evident during that segment; you will need to refer to your ratings on the Trauma Play Scale in order to ensure that your ratings on that scale are matched to specific toys and play themes on the Toy and Play Theme Checklist.

#### **Identifying Toys Used:**

For each five-minute segment (column) you should indicate which toys the child played with during that segment. Place a check mark in the small box in the upper left-hand corner of each cell that corresponds with the toys that the child used in the segment. The child may have played with several toys, so you may mark several boxes. If the child did not use any toys during the segment, leave the boxes blank. If two or more toys are listed together, please indicate which toy the child used by underlining the appropriate toy. If there are many toys of the same type (i.e., different kinds of masks, puppets, etc.), please indicate which specific toy the child used.

#### **Identifying Play Themes:**

For each five-minute segment (column) you should indicate the primary play theme expressed in the child's play during that segment. Use the play theme codes listed at the top of the Toy and Play Theme Checklist and write in the appropriate code in the cell that corresponds with the toys used during the segment. See the following page for a detailed description of each of these play themes. Try to identify at least one play theme per five-minute segment. If more than one play theme was evident, use more than one code. Try to limit play themes to three or fewer per segment. If no play theme was evident, leave the column blank.

#### **Indicating Type of Play:**

For each five-minute segment (column) you should indicate the type of play exhibited by the child during that segment. Using your ratings on the Trauma Play Scale, circle the letter or letters in the cell that correspond to the type of play exhibited and the toys used during that segment. The letters in the cells are codes for four of the types of play measured by the Trauma Play Scale. I=Intense, PD=Play Disruption, R=Repetitive Play and SS=Self-Soothing. If you rated the child a two or higher on any of these types of play on the Trauma Play Scale, you should circle the appropriate letter or letters on the Toy and Play Theme Checklist. This will allow the researcher to determine the specific toys and play themes that are related to the various types of play behaviors.

In each block, write in code for significant or repetitive play theme during 5 minute segment. Check box if child played with toy during segment. Circle I, PD, R, or SS to indicate type of play observed.

CON=Control      MAST-C=Constructive      REL-A=Approval Seek      REL-M=Manipulative      SAF=Safety/Protection  
 HELP=Helpless      MAST-D=Deconstructive      REL-AM=Rel. Ambiv.      REL-R=Reparative      SEX=Sexualized  
 EXP=Exploratory      NUR=Nurturing      REL-C=Connecting      REL-T=Testing      Other: \_\_\_\_\_  
 LOSS=Loss/Death      POW=Power      REL-D=Distancing/Rejecting      REV=Revenge/Retaliante

Note any physiological changes within child during segment: rapid breathing, urination, defecation.

Also note LIT=Literal play & DAR=play in the dark

	1 - 5	6 - 10	11-25	16-20	21-25
Animals	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Scary	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Arts / Crafts	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Baby doll	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bean Bag / Pillow / Blanket	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bop bag	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bottle / Pacifier / Sucking	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bubbles	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Cash Register / Money	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Chalkboard	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Cleaning	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Doll House / Family	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Dress Up / Pretend	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Flashlight	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Food / Eating	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Games / Bat & Balls	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Guns	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Hammer / Log	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Handcuffs	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Hats / Masks	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Kitchen / Cooking	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Knife / Sword	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Large Blocks	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Medical Kit / Band-Aids	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Instruments	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Paint / Easel	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Phone / Camera	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Puppets	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Riding Car	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Rope	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Sandbox	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Soldiers / War	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Tape	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Theater	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Vehicles	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Water	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Other	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS

In each block, write in code for significant or repetitive play theme during 5 minute segment. Check box if child played with toy during segment. Circle I, PD, R, or SS to indicate type of play observed.

CON=Control      MAST-C=Constructive      REL-A=Approval Seek      REL-M=Manipulative      SAF=Safety/Protection  
 HELP=Helpless      MAST-D=Deconstructive      REL-AM=Rel. Ambiv.      REL-R=Reparative      SEX=Sexualized  
 EXP=Exploratory      NUR=Nurturing      REL-C=Connecting      REL-T=Testing      Other: \_\_\_\_\_  
 LOSS=Loss/Death      POW=Power      REL-D=Distancing/Rejecting      REV=Revenge/Retaliate

Note any physiological changes within child during segment: rapid breathing, urination, defecation.

Also note LIT=Literal play & DAR=play in the dark

	26-30	31-35	36-40	41-45	45+
Animals	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Scary	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Arts / Crafts	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Baby doll	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bean Bag / Pillow / Blanket	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bop bag	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bottle / Pacifier / Sucking	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Bubbles	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Cash Register / Money	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Chalkboard	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Cleaning	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Doll House / Family	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Dress Up / Pretend	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Flashlight	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Food / Eating	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Games / Bat & Balls	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Guns	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Hammer / Log	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Handcuffs	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Hats / Masks	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Kitchen / Cooking	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Knife / Sword	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Large Blocks	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Medical Kit / Band-Aids	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Instruments	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Paint / Easel	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Phone / Camera	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Puppets	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Riding Car	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Rope	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Sandbox	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Soldiers / War	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Tape	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Theater	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Vehicles	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Water	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
Other	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS
	I PD R SS	I PD R SS	I PD R SS	I PD R SS	I PD R SS



### Directions for scoring the Trauma Play Scale

The Trauma Play Scale produces a large amount of data when applied to a relatively small number of research subjects. The researcher should collect all raw data (i.e., Trauma Play Scale rating forms and Toy and Play Theme Checklists) after all ratings are completed. Data may be analyzed on several different levels. For instance, the researcher may examine Trauma Play Scores at 5-minute intervals for each child (i.e., the segment level), at 50-minute intervals per child (i.e., the session level), at 10 session intervals per child (i.e., the series level), or at the group level (i.e., the Average Trauma Play Scale Score for the group as a whole). Examples of possible products of the Trauma Play Scale are as follows:

*Segment Scores with Overall Session Trauma Score (avg. of all segment scores per child)*

Intense Play	3	2	5	3	3	2	3	2	3	2.893
Repetitive Play	2	1	2	3	4	5	3	2	3	2.78
Play Disruptions	4	2	3	2	1	2	3	4	5	2.89
Detached Play	3	2	4	2	2	2	4	3	2	2.67
Negative Affect	4	4	5	5	4	5	4	3	4	4.22
Avg. Segment Trauma Scores	3.2	2.2	3.8	3	2.8	3.2	3.4	2.8	3.7	3.09
										Overall Session Trauma Score

*Average Session Scores With Overall Series Trauma Score (avg. of all session scores per child)*

Intense Play	3.2	2.1	5.3	3.8	3.2	2.2	3.1	2.2	2.3	3.3	3.07
Repetitive Play	2.2	1.3	2.2	3.0	4.1	5.0	3.2	2.1	2.3	3.2	2.86
Play Disruptions	3.8	2.4	3.4	2.4	1.2	2.3	3.2	4.2	5.0	5.0	3.29
Detached Play	3.3	2.3	4.2	2.3	2.3	2.2	4.4	3.3	3.2	2.2	2.97
Negative Affect	4.2	4.4	5.0	5.0	4.2	5.0	4.2	3.2	2.3	4.2	4.17
Avg. Segment Trauma Scores	3.3	2.5	3.8	3.3	3.0	3.3	3.6	3.0	3.0	3.6	3.27
											Overall Session Trauma Score

*Average Group Scores with Overall Group Trauma Score (avg. of overall series trauma scores for all children in group)*

Intense Play	3.1	3.9	5.3	3.7	3.2	2.2	3.1	2.2	2.3	3.3	3.23
Repetitive Play	2.2	1.3	2.2	3.0	4.6	5.0	3.2	2.1	2.3	3.2	2.91
Play Disruptions	3.8	3.5	3.4	2.4	1.2	2.3	3.2	4.2	5.0	5.0	3.40
Detached Play	3.1	2.3	4.2	2.3	2.3	2.2	4.4	3.3	3.2	2.2	2.95
Negative Affect	2.2	3.5	5.0	2.3	4.2	2.5	4.2	3.7	2.3	4.2	3.41
Avg. Segment Trauma Scores	2.9	2.9	4.0	2.7	3.1	2.8	3.6	3.1	3.0	3.6	3.1827
											Overall Session Trauma Score

If desired, one could calculate the following:

Segment Scores, for example:

- Segment Trauma Score (average of all subscales; per child or group)
- Segment Intense Play Score (per child or group)
- Segment Repetitive Play Score (per child or group)
- Segment Play Disruption Score (per child or group)
- Segment Detached Play Score (per child or group)
- Segment Negative Affect Score (per child or group)

Overall Session Scores for each child on each variable, for example:

- Overall Session Trauma Score (average of all subscales; per child or group)
- Overall Session Intense Play Score (per child or group)
- Overall Session Repetitive Play Score (per child or group)
- Overall Session Play Disruption Score (per child or group)
- Overall Session Detached Play Score (per child or group)
- Overall Session Negative Affect Score (per child or group)

Overall Series Scores for each child on each variable, for example:

- Overall Series Trauma Score (average of all subscales; per child or group)
- Overall Series Intense Play Score (per child or group)
- Overall Series Repetitive Play Score (per child or group)
- Overall Series Play Disruption Score (per child or group)
- Overall Series Detached Play Score (per child or group)
- Overall Series Negative Affect Score (per child or group)

Overall Group Scores on each variable, for example:

- Overall Group Trauma Score
- Overall Group Intense Play Score
- Overall Group Repetitive Play Score
- Overall Group Play Disruption Score
- Overall Group Detached Play Score
- Overall Group Negative Affect Score

APPENDIX D  
NORMATIVE GROUP INCLUSION CRITERIA CHECKLIST

### **Normative Group Inclusion Criteria Checklist**

An affirmative response is required on each item for child to be included in the normative group:

1. Child meets the general inclusion criteria for all participants in the pilot study:

**Yes** \_\_\_\_\_ **No** \_\_\_\_\_

2. Child's parent or guardian has reported that the child has NOT experienced one or more of the following potentially traumatic events of an interpersonal nature (James, 1989; James, 1994; Gill, 1989; Dayton, 2000; Eth, 2001; Eth & Pynoos, 1985; Terr, 1991; Green, 1985):

**Yes** \_\_\_\_\_ **No** \_\_\_\_\_

- a. Physical abuse
- b. Sexual abuse
- c. Emotional abuse
- d. Neglect
- e. Witnessed domestic violence
- f. Witnessed other interpersonal violence
- g. One or more parent suffers mental illness
- h. Separation from parent or caregiver due to abandonment, incarceration, death, adoption (post-infancy), or removal from the home due to Child Protective Services Intervention.

3. Child's parent or guardian has reported that the child DOES NOT exhibits one or more of the following behavioral indicators of emotional distress (Eth, 1990; Scheeringa et al., 1995; Stores, 1996; Thornton, 2000):

Yes\_\_\_\_\_ No\_\_\_\_\_

- a. Repetitive re-enactments of the traumatic event via play, constricted play, or daydreaming
  - b. Withdrawn behavior
  - c. Generalized nightmares or sleep disorders including night terrors, somnambulism, initial and middle insomnia
  - d. Loss of developmentally acquired skills including toileting behavior and language abilities
  - e. Aggressive behavior
  - f. Separation anxiety
4. Child is developing normally in the areas of social, emotional, cognitive, and physical functioning.

Yes\_\_\_\_\_ No\_\_\_\_\_

APPENDIX E

TRAUMA GROUP INCLUSION CRITERIA CHECKLIST

### *General Inclusion Criteria for Traumatized Group*

The traumatized group data is from the pilot TPS study (Findling, et al., 2006). All child participants of the traumatized group met the following criteria: a) the child was between the ages of five and seven years while receiving therapy services; b) the child had been in therapy with a therapist who had received graduate level training in child-centered play therapy and who had completed at least one graduate level training in play therapy; c) the child had completed eight consecutive play therapy sessions, between sessions 2 and 13, prior to the conclusion of the data collection phase of the pilot study; d) the child's therapist had determined the child had a history of trauma, based on reported background history and the therapist's clinical judgment and in consultation with the therapist's supervisor; e) the family freely sought counseling services for their child; that is, the family had contacted the counseling center of their own free will in order to seek play therapy services for their child or children; f) the child's parent or guardian signed an informed consent for the child to participate in the study, *or* the child's parent or guardian signed an informed consent specifically allowing their child's therapist to use video-recorded play therapy sessions for educational and/or research purposes; g) the child client had given assent to participate in the research project (when required by the Institutional Review Board), *unless* assent has been waived by his or her parent or guardian due to the child's lack of understanding or emotional state; h) the parent or guardian of the child client was able to read and speak English; and i) the child was



considered a new client, the child had not received therapy services at either clinic during the preceding year, or, the child may have received therapy services immediately following a traumatic event (regardless of previous therapy services received). In addition, all participants in the traumatized group met all the trauma-specific inclusion criteria as outline in the Trauma Group Inclusion Checklist Criteria.

### **Trauma Group Inclusion Criteria Checklist**

An affirmative response is required on each item for child to be included in the normative group:

1. Child meets the general inclusion criteria for all participants in the pilot study:  
**Yes \_\_\_\_\_ No \_\_\_\_\_**

2. Child's parent or guardian has reported that the child has experienced one or more of the following potentially traumatic events of an interpersonal nature (James, 1989; James, 1994; Gill, 1989; Dayton, 2000; Eth, 2001; Eth & Pynoos, 1985; Terr, 1991; Green, 1985):  
**Yes \_\_\_\_\_ No \_\_\_\_\_**

- a. Physical abuse
- b. Sexual abuse
- c. Emotional abuse
- d. Neglect
- e. Witnessed domestic violence
- f. Witnessed other interpersonal violence

- g. One or more parent suffers mental illness
- h. Separation from parent or caregiver due to abandonment, incarceration, death, adoption (post-infancy), or removal from the home due to Child Protective Services Intervention.

3. Child's parent or guardian has reported that the child exhibits one or more of the following behavioral indicators of emotional distress (Eth, 1990; Scheeringa et al., 1995; Stores, 1996; Thornton, 2000):

**Yes**\_\_\_\_\_ **No**\_\_\_\_\_

- a. Repetitive re-enactments of the traumatic event via play, constricted play, or daydreaming
- b. Withdrawn behavior
- c. Generalized nightmares or sleep disorders including night terrors, somnambulism, initial and middle insomnia
- d. Loss of developmentally acquired skills including toileting behavior and language abilities
- e. Aggressive behavior
- f. Separation anxiety

4. Child's therapist identified child as a traumatized child, based on his or her clinical judgment in consultation with his or her supervisor.

**Yes**\_\_\_\_\_ **No**\_\_\_\_\_

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