

DEVELOPMENT OF A TRAUMA PLAY SCALE: AN OBSERVATION-BASED
ASSESSMENT OF THE IMPACT OF TRAUMA ON THE
PLAY THERAPY BEHAVIORS OF
YOUNG CHILDREN

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Literature suggests that traumatized children exhibit a type of play that is distinct from the play behaviors of other children (Terr, 1983). The purpose of this study was the development of an instrument designed to detect differences in the play therapy behaviors of children with a history of trauma versus children with no known history of trauma.

The study consisted of two phases; the instrument development and pilot study phases. The researcher followed Hill's (1991) guidelines for instrument development. The scale was designed so that raters could rate a child's behavior, via videotaped play therapy sessions, at five minute intervals. The scale consisted of the following domains: Intense Play, Repetitive Play, Play Disruptions, Avoidant Play Behavior, and Negative Affect. The Average Trauma Play Scale Score is an average of scores across these domains.

During the pilot study phase, the researcher evaluated the scale in terms of reliability, face validity, and discriminant validity. Subjects were twelve children; six had a history of trauma and six had no known trauma history. Five trained raters rated eight consecutive videotaped play therapy sessions for each participant. One-way and repeated measures analysis of variance statistics, including effect sizes, were used to detect differences between the groups.

Percentage agreement and correlational estimates of interrater reliability suggest that raters are able to achieve consensus and consistency in their ratings. Quantitative and qualitative feedback from experts in the field of play therapy provide strong support for the face validity of the scale. Statistical analyses indicate that the Trauma Play Scale has a high degree of discriminant validity. Traumatized children scored higher on the Trauma Play Scale than non-

traumatized children, as expected. Effect size estimates indicate strong relationships between participants' trauma history status and their Average Trauma Play Scale scores. In post-hoc analyses, the Repetitive Play Domain was omitted from the aggregate score; this analysis uncovered statistically significant differences between the two groups.

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CHAPTER 1

INTRODUCTION

Children throughout history have struggled with living in a world replete with dangers and traumatic events of all kinds. The vulnerability and dependency characteristic of childhood renders the child powerless in the face of this onslaught. According to Lebo (1982) Rousseau, the French philosopher was among the first to recognize the intrinsic value of childhood; this period marked the beginning of pedagogy and the scientific study of children. Within the past century, more and more refined methods have been developed to address the mental health needs of children; play therapy grew out of this intellectual tradition as a developmentally responsive means of treating trauma in children.

The past few decades have produced a wealth of information about the deleterious effects of trauma on children, as well as numerous theories about how best to help these children (Terr, 1983; Gil, 1989; James, 1989; Van der Kolk, 1994; Webb, 2001). The need for early intervention and treatment for child survivors of trauma seems to be gaining recognition on the national front as research uncovers the devastating effects of psychological trauma (National Institute of Mental Health, 2002). There seems to be a strong agreement that traumatic events may have long-term, negative consequences on the social, physical, intellectual, and emotional development of children (Van der Kolk, 1994; Mills, 1995; Dayton, 2000; Webb, 2001). Longitudinal research demonstrates that children subjected to abusive home environments have an increased incidence of depression, suicide, interpersonal problems, negative self-esteem, multiple personality disorder, aggression, eating disorders, and anti-social behavior (Finkelhor, 1986; Kempe & Helfer, 1987; Wolfe, 1987). Most experts would agree that childhood physical,

emotional, or sexual abuse experiences are potentially traumatic to the developing child (James, 1989; Gill, 1989; Dayton, 2000). Interpersonal trauma, or relationship trauma (Dayton, 2000, p. 3), may be defined as the rupture of relationship bonds. This rupture occurs 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. James' (1994, p.7) concept of attachment-trauma also stresses the central role of the child's relationships with caretakers; she explained that this relationship may serve as a protective factor for children who experience external traumata, or under less favorable conditions, the child may become traumatized through caretakers' neglectful or abusive actions.

Given the unfortunate sequelae of childhood trauma, it seems evident that prompt and developmentally appropriate treatment for child survivors of trauma is critical. The role of play in the diagnosis and treatment of traumatic stress in children has taken on greater significance in recent years. According to Eth (2000), the diagnostic criteria for Post Traumatic Stress Disorder (PTSD; APA, 1994) have been revised to include aspects of children's play that may be indicative of a posttraumatic response. Play therapy seems to provide an ideal setting for the study of the play behaviors of traumatized children, as play therapists consistently attend to the play behaviors of children with a broad spectrum of mental health concerns, including traumatized children (Ryan, Gomory, & Lacasse, 2002; Phillips & Landreth, 1995). Play therapy is a treatment modality that draws upon the communicative function of play in the lives of young children. Play therapy has been proven to be a developmentally sensitive approach to treating children with a wide range of mental health concerns, including trauma (Bratton & Ray, 2000; Ray, Bratton, Jones & Rhine, 2001; LeBlanc and Ritchie, 2002). A deeper understanding of the needs of children with a history of trauma would allow therapists, parents, teachers and other

caregivers to be more sensitive in their work with these children. It seems particularly vital for play therapists to have a full understanding of the needs of traumatized children, given the fact that the majority of play therapists frequently provide therapeutic services to children who have experienced victimization (Ryan, Gomory, & Lacasse, 2002). Larger social systems, such as local and national lawmakers, community service agencies, and educational systems would also benefit from a greater understanding of the needs of traumatized children.

Statement of the Problem

There is currently a lack of empirical knowledge about the characteristic play behaviors of children with a history of trauma (McClean-Russell, 1994). I identified two major impediments to the empirical study of the 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. The purpose of this study is to develop an observation-based assessment that accurately measures the play behaviors of children as they engage in play therapy; in particular, the instrument is designed to accurately assess play behaviors that are believed to be evident in the play of traumatized children as they engage in the process of play therapy. This developmentally responsive assessment instrument will provide clinicians with a useful tool for assessing the impact of trauma on young children. This should provide clinicians with an increased understanding of the needs of traumatized children, which will have a positive impact on the clinical treatment of children who have experienced trauma.

Review of Related Literature

Related literature is discussed in the following areas: a) play therapy; b) impact of trauma on children; c) play therapy research with traumatized children, d) measurement instruments designed to assess the impact of trauma in children, e) play-based assessment instruments.

Play Therapy

Play may be viewed as a form of self-expression; play allows children express their inner experiences in a way that comes naturally to the child (Landreth, 2001). Sigmund Freud (1909) was the first to apply psychoanalytic principles to the treatment of children in his work with “Little Hans,” a five-year old boy with a phobia. Freud trained the boy’s father in play-based analytic techniques to be applied at home. The use of play in psychotherapy with children was continued when Hermine Hug-Hellmuth incorporated play into her diagnosis and treatment of young children in 1921 (Gil, 1991; Landreth, 2002, p. 28). Melanie Klein began to employ the use of play in her psychoanalytic approach to treating young children (Klein, 1955). Klein (1955) seemed to view children’s play behaviors as analogous to the free associations of adult analysands. Anna Freud (1926) noted that children lack the cognitive development necessary for free association and other insight-oriented processes involved in adult psychoanalysis. She therefore incorporated toys and play behaviors as a vehicle for accessing the child’s unconscious material. Freud (1926) seemed to view play as a way to build the therapeutic relationship with the child; she believed that the therapeutic relationship must be established before the interpretive work of psychoanalysis could be accomplished (Landreth, 2002, p. 29). However, Freud later complained (1965, p. 30) that certain realities in the use of play, especially safety concerns, limit the child’s freedom of expression. Release play therapy (Levy, 1938) differed

from the earlier psychoanalytic formulations of play therapy in that Levy (1938) focused on the abreactive value of play, rather than the interpretive role of the therapist. Levy (1938) explained that children who have experienced traumatic events spontaneously reenact these events, thereby releasing the tension and pain associated with the events (Landreth, 2002, p. 32). Hambidge (1955) extended Levy's (1938) work, and formed an approach he termed "Structured Play Therapy." Hambidge (1955) believed that the therapist could facilitate the child's abreaction through structuring the session in a way that was reminiscent of the child's traumatic history. Relationship play therapy was developed by the collaborative work of Jesse Taft (1933) and Frederick Allen (1934). Their approach stressed the child-therapist relationship as the central curative element in play therapy, and they emphasized the importance of focusing on the here-and-now relationship with the child. Taft (1933) and Allen (1934) "...regarded children as persons of inner strength with the capacity to alter their behaviors constructively" (Landreth, 2002, p. 34). Carl Rogers (1942) expanded the work of the relationship therapists in his development of nondirective therapy. Virginia Axline (1947) was a student of Rogers; she applied his nondirective principles of psychotherapy to her work with children. Axline (1955) originated client-centered play therapy, which was based on the belief in the child's natural striving for growth. This approach was later termed child-centered play therapy (Landreth, 2003, p. 35). Landreth (1982) extended and clarified the child-centered approach to play therapy. In recent decades, play therapy has been proven to be an effective and developmentally sensitive approach to the treatment of mental health concerns in young children (Bratton, Ray, Rhine, & Jones, 2003; LeBlanc and Ritchie, 2002).

Facilitative Dimensions of Play Therapy

Play therapy is believed to facilitate growth in children for several reasons; first, play therapy is sensitive to the developmental needs of children (Moustakas, 1955; Hendricks, 1971; Withee, 1975; Landreth, 2001; Sweeney, 1997); second, play therapy provides children a safe way to express painful feelings due to its symbolic nature (Axline, 1947; Moustakas, 1955; Landreth, 2001); and third, the therapeutic relationship formed within the context of play therapy provides the child with an unparalleled degree of acceptance and understanding; this experience frees the child to move towards greater self-acceptance and self-understanding (Axline, 1969; Landreth, 2001).

Developmental Sensitivity

Play therapy is an approach to working with children in a therapeutic setting that is sensitive to the developmental level of the child (Moustakas, 1955; Hendricks, 1971; Withee, 1975; Terr, 1981; Landreth, 1991; Gallagher et. al., 1995; Sweeney, 1997).

Axline (1947, p. 16) stated that play is the child's "...natural medium for self-expression." She believed that children are capable of expressing a full range of emotions through their play, that play is the most developmentally appropriate mode of expression for children, and that this process is healing to the child. The result of this free expression of feelings through play is that the child begins to realize his or her own power to choose and to realize his or her own selfhood (Axline, 1947, pp. 16-17).

In recent decades, play therapists have benefited from the knowledge gained in the realm of child development. The work of Piaget (1962) supports the use of play as a means of understanding the child's inner experiences. Piaget (1962, pp. 161-168) described the cognitive processes of assimilation and accommodation as necessary components of the child's cognitive

development. Assimilation begins at a concrete level wherein the child takes in information from the environment and engages in a process of “mental digestion,” coming to mastery of the knowledge or task encountered. Accommodation is the process of acquiring knowledge through experimental interaction with one’s environment. Piaget (1962, pp. 162-168) claimed that the child’s play develops its symbolic character through the interaction of the cognitive processes of assimilation and accommodation. More specifically, as the child grows out of the sensory-motor stage and into the ability to engage in representational thought, the process of assimilation is dissociated from the process of accommodation, and make-believe play grows out of the distortion of assimilation processes. Put succinctly, the child’s imagination seems to grow out of his or her experiences with the world. Therefore, play may be viewed as a representation of the child’s inner experiences.

Erikson (1963) recognized the importance of play in the personality development of the child. He viewed play as the child’s attempt to integrate ego qualities such as trust, autonomy, and identity within the social environment. Erickson (1963, p. 222) explained his position as such: “I propose the theory that the child’s play is the infantile form of the human ability to deal with experience by creating model situations and to master reality by experiment and planning.” He concluded that the child’s ability to ‘play out’ his or her experiences is the greatest self-healing measure available to children. Erikson’s (1963) developmental theory clearly supports the conclusion that play is a meaningful expression of the child’s understanding of self and others.

Landreth and Sweeney (1997, p. 25) stated that the therapist must be sensitive to the child’s intellectual, emotional and social developmental level; using play as a means of communication is evidence of this kind of sensitivity. Children often lack the cognitive abilities

to engage in abstract, verbal communication, especially when the subject is the self of the child. Indeed, it is difficult for many adults to engage in the abstract tasks of self-reflection and insightful discussion that is expected in therapy. Therefore, play is used as a concrete and developmentally appropriate means of communication whereby the therapist may come to deeply understand the self of the child and facilitate self-acceptance through the relationship that is built on this deep understanding (Landreth & Sweeney, 1997).

Symbolic Nature

The symbolic nature of play is also considered one of the core healing elements of play therapy (Freud, 1926; Axline, 1947; Moustakas, 1955; Landreth, 1991; Landreth, 2001). Axline (1947, p. 98) explained that the child's play "...is symbolic of his feelings..." and that the therapist must not push the child out of symbolic representation before the child is ready. This statement suggests that Axline (1947) saw the symbolic nature of play as a form of protection against feelings or internal experiences with which the child was not yet ready to cope.

Landreth (2001, p. 8) stated that "...children communicate their unconscious feelings through play and utilize available toys and materials as symbols to express the feelings of which they may not be aware at that time." He related that this symbolism allows children to experience a sense of safety; they are shielded from the intensity of their own feelings because the play allows the child to indirectly express feelings that might be overwhelming if expressed directly.

Cockle and Allan (1996) described the process of "circumambulation," wherein a child in play therapy treatment symbolically approaches painful issues in a spiral pattern, coming closer and closer to resolution and integration with each session of meaningful play. It is the symbolic

nature of play that allows the child to approach his or her painful feelings from the safe distance that metaphor provides.

Terr (1990, p. 299) explained the process by which symbolic play protects the child from threatening feelings or internal experiences. She noted that, "...play therapy gives the traumatized child the opportunity to work through his problems without necessarily 'seeing' that problem as his or her own—it belongs to the 'princess' or the 'dinosaur' or the 'Godzilla' or the 'starship,' not to him. She concluded that play is the most powerful way to effect internal changes in young, traumatized children (Terr, 1990, p. 299).

Therapeutic Relationship

Finally, the therapeutic relationship formed within the context of play therapy, is believed to be the central healing dimension of the process of play therapy (Axline, 1969, 1982; Landreth, 2001). A broad range of authors has stressed the centrality of the therapeutic relationship formed between child and therapist (Allen, 1939/1982; Axline, 1950/1982; Moustakas, 1959; Landreth, 2001).

In an early essay on the use of play therapy with children, Allen (1939/1982) described the importance of the quality of the therapeutic relationship. He especially stressed the need for play therapists to create an atmosphere of acceptance of the child. He wrote, "...the capacity to accept a child or adult as he is, without an urge to recreate him or to take over his own responsibility for living, is indicative of my respect for his capacity to work on his own problem, and to achieve a healthier expression of himself through the type of relation I enable him to have with me as a therapist" (Allen, 1939/1982). Allen (1939/1982) further explained that the child's struggles within the therapeutic relationship formed the basis of the child's increased levels of

self-understanding and self-acceptance. One may conclude that Allen (1939/1982) believed that the therapist's attitude of acceptance is crucial to the individuals' progress in therapy.

Axline (1950/1982) stressed the importance of the therapeutic relationship as a healing element in the process of play therapy. She explained that as the therapist offers conditions of acceptance, the child becomes increasingly free in his or her self-expressions. "In the play therapy experience, the child is given a safety zone in which 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" (Axline, 1950/1982). Thus, the child's healing in play therapy stems not only from the expression of previously repressed emotion, but from the acceptance and safety provided by the therapeutic relationship.

Moustakas (1959, p. 3) commented on the central role of the therapeutic relationship in play therapy. He argued that the therapist must maintain an attitude of genuine respect for the unique nature of each child in play therapy. Furthermore, Moustakas (1959) believed that the therapist's focus on immediate and alive interactions with the child facilitates growth within the child. According to Moustakas (1959), it is through this relationship that the child "...restores the powers of his individual nature and affirms his real self" (p. 3).

Landreth (2002, pp. 70-87) described the central role of the therapeutic relationship as a facilitative dimension of play therapy. Landreth's child-centered approach to play therapy was built upon the person-centered philosophy of Carl Rogers (1986) as well as Axline's (1950) application of person-centered philosophy to children. Landreth (2002, p. 70) described three therapist offered conditions that are necessary to allow the growth of a child in play therapy. First, the play therapist should seek to be real with the child. That is, the therapist should seek to

be genuine with the child at all times; this level of authenticity requires that the therapist possess a high degree of self-awareness and insight in order to share this self with the child (Landreth, 2002, p. 72). Second, the therapist should seek to express an attitude of warm caring and acceptance to the child. According to Landreth (2002, p. 73), “This kind of acceptance and warm caring is characterized by positive respect for the child as a person of worth.” Third, the therapist should seek to display sensitive understanding in their interactions with children. That is, the therapist should strive to understand the child’s internal frame of reference, his or her subjective world. According to Landreth (2002, p. 75), children are not free to change “...until they experience a relationship in which their subjective experiential world is understood and accepted.” Clearly, the philosophy of child-centered play therapy supports the notion that the relationship is a fundamental facilitative dimension of play therapy.

Impact of Trauma on Children

Anna Freud (1965, p. 128) explained that traumatic shock may lead to temporary or permanent regression in the personality of the child. She believed 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.

Herman (1992) described the experience of trauma as one wherein the victim is rendered helpless and is overwhelmed by fear and loss of control. She explained that traumatic events “overwhelm the ordinary human adaptations to life” (1992, p. 33). She further noted that traumatic events shatter the victim’s sense of safety in the world, forcing the trauma survivor to question fundamental beliefs about self, others, and relationships (Herman, 1992, p. 51).

Van der Kolk (1994) outlined several psychophysiological responses to traumatic events, including physical hyper-arousal, emotional numbing or emotional reactivity, abnormal acoustic

startle response, and neuroendocrine abnormalities. Van der Kolk (1994) further explored the relationship of memory and trauma; he stated, "...when people are traumatized, they are said to experience 'speechless terror:' the emotional impact of the event may interfere with the capacity to capture the experience in words or symbols." This interruption in the cognitive processing of traumatic events seems to support the use of play therapy, as the trauma survivor is not dependent on linguistic expression, but rather, is able to express painful thoughts and feelings through non-verbal means.

James (1989, pp. 1-4) explained traumatic events as context dependent; she noted that an event that is traumatic to one child may or may not be traumatic to another child. "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) drew upon theories of attachment to explain and predict children's reactions to potentially traumatic events. She explained that children who have experienced secure attachments with caregivers are better equipped to cope with trauma than children who have insecure attachments with caregivers. She noted that there seems to be a reciprocal relationship between a child's attachment style and his or her reaction to a potentially traumatic event; that is, the child's attachment style seems to influence his or her reaction to the event, and the potentially traumatic event seems in turn to influence the child's attachment style.

Trauma within a Developmental Framework

There is strong agreement among play therapists that children's mental health services should be sensitive to the child's developmental level in assessment as well as treatment (Ray,

Bratton, Jones & Rhine, 2002). Several authors have noted the reciprocal relationship between trauma and the developmental level of the individual (James, 1989; van der Kolk, 1994; Shelby, 2000). Development occurs on many different levels, including physical development, cognitive development, and emotional or psychological development.

Fitch (1995) explained that a child's physical development may be seriously impeded by severe stress; he noted that children who experience severe stress often exhibit a delay in physical development known as the failure-to-thrive syndrome. Youell (2001) linked trauma reactions to a failure in cognitive development; she described a case study wherein a child apparently failed to develop symbolic thought as a consequence of early traumatic experiences.

According to Pearce and Pezzot-Pearce (1997, p. 32), several studies have documented cognitive impairment in children with a history of maltreatment in comparison to control subjects (Barahal, Waterman, & Martin, 1981; Pezzot, 1978). The maltreated children in these studies were reported to have lower IQs than their non-maltreated peers even when the impact of neurological damage was statistically controlled.

Thornton (2000) further elucidated the negative impact of trauma on cognitive development; he explained that learning problems and academic failure have been reported in children with post-traumatic stress (McFarlane 1987; Kinzie et al. 1989; Sack et al. 1993; & March et al. 1997). Thornton related these problems in cognitive development to both the negative effects of the traumatic events as well as emotional reactions to the trauma that may interfere with learning, such as numbing, avoidance, or social withdrawal.

Numerous authors have recounted the negative effects of trauma on children's psychological development (James, 1989; Shelby, 2000; Shah & Mudholkar, 2000; Drake, Bush, & van Gorp 2001). Drake, Bush and van Gorp (2001) give a thorough account of the

psychological consequences of trauma, based on the DSM-IV diagnostic criteria. These consequences include: persistent re-experiencing of the traumatic event, avoidance of stimuli related to the traumatic event, emotional numbing, hyper-arousal, survival guilt, and feelings of sadness or anxiety. It seems clear that a child who is struggling with this painful array of psychological issues would have little energy left to devote towards normal psychological development.

Some authors have attempted to relate specific trauma reactions to specific phases of child development. Shelby (2000) described psychological defense mechanisms that may be characteristic of certain age groups as they encounter traumata. For instance, she stated that young children tend to use simple defense mechanisms, such as denial or splitting, while older children are able to employ more complex defense mechanisms (Shelby, 2000).

Rosenberg (2001) reported qualitative differences in the reactions of young children and older children who presented with a trauma history. He related that younger children tend to utilize avoidance and also tend to have more global re-experiencing symptoms, whereas older children are more likely to suffer hyper-arousal and trauma-specific re-experiencing symptoms.

In a theory-based article, Drewes (1999) enumerated the effects of trauma on children at various developmental stages. She built upon the work of Piaget (1962) as she claimed that children in the sensorimotor stage of development, from birth to 24 months, normally engage in repetitive play that is designed to enhance the child's understanding of the world. If a child in this stage is allowed to develop normally, the child develops a growing sense of confidence as he or she explores the world. Drewes (1999) asserted that children who experience trauma during the sensorimotor stage are typically unable to develop trusting relationships and are therefore inhibited and stunted in their explorations of the world. Drewes (1999) further addressed the

effects of trauma on children in the pre-operational stage; she noted that non-traumatized children in this stage rapidly develop the ability to engage in symbolic play, or pretend play. Traumatized children in the pre-operational stage may be reluctant to engage in symbolic play, or may be limited in their ability to use symbolic play. Drewes (1999) noted that this impaired ability to engage in symbolic play puts the child at a disadvantage, as symbolic play is the primary vehicle for children in this stage to explore self, others, and the world. Finally, Drewes (1999) addressed the impact of trauma on children in the concrete operational stage of development. She asserted that whereas non-traumatized children in this stage develop rational thinking and more complex interpersonal dynamics in play, traumatized children are impaired in their ability to play cooperatively with peers, and they may consciously or unconsciously maintain hostile relationships with others.

It seems evident that trauma may have a negative impact on the child's development along several different developmental trajectories. When one views the child in a holistic manner, the effects of trauma are greatly magnified. Given that traumatic events may impede the child's healthy development, it is especially important that assessment instruments be sensitive to the needs of children at various levels of development.

Play Therapy with Traumatized Children

There are many different theoretical approaches to conducting play therapy; each of these theoretical schools has a unique perception of the needs of traumatized children. This section includes a review of current theories related to the needs of traumatized children as well as play therapy research related to traumatized children.

Theories Related to the Needs of Traumatized Children

Anna Freud and Melanie Klein are generally regarded as the originators of play therapy (Dorfman, 1965, Terr, 1981, Gallagher et. al., 1995, Sweeney, 1997). Anna Freud specifically examined play therapy with traumatized children in her article *Comments on Trauma* (Freud, 1967). There is apparently some controversy about later developments in play therapy with trauma survivors; Graham-Costain and Gould (1990) credited Levy as the first to use play therapy to address the fears of traumatized children, in 1939. Terr (1983) described a type of play that is 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. Terr (1983) asserted that it is very unusual for therapists to observe post-traumatic play within the therapy session, due to its ritualized character and the child’s need to maintain secrecy around this intense play. Because she did not typically witness post-traumatic play in the therapy session, she relied on the reports of parents, caretakers, and children to ascertain whether or not the child exhibited this behavior. Terr believed that post-traumatic play requires direct intervention from the therapist in the form of verbal interpretations shared with the child in order to help the child alleviate intense feelings of anxiety. Terr’s (1983) assertions about post-traumatic play have not been empirically validated; that is, her descriptions of post-traumatic play were based on clinical observations including interviews with both children and their parents or caretakers.

Mann and McDermott (1983) prescribed an approach to working with traumatized children based on their work with several children who had experienced severe abuse or neglect. They explained that these children often had traumatic reactions to their abuse or neglect experiences and that this traumatic reaction surfaced through a lack of trust in caretakers,

depression, hyperactivity, pseudomaturity, hypervigilance, etc. Mann and McDermott (1983) outlined several stages of therapy for children who have experienced trauma. The first stage included establishing rapport and learning how to play. The second stage consisted of regression and abreaction of the trauma. The third stage was described as a process of testing relationships, developing impulse control, and building self-esteem. The final termination phase included signs of regression and goodbye rituals. These authors took a directive approach in teaching children how to play and also in intervening in trauma play with comments that were thought to facilitate healing and problem-solving skills.

Another well-known proponent of play therapy with children who have experienced trauma is Beverly James; her writing draws upon the work of Terr (1981) as well as her own clinical work. James (1989, p. 74) claimed that traumatized children can "...get stuck in a limited play theme such as killing and burying everything so that the event is over, but do not seem to feel strengthened, comforted, or relieved by the enactments." James (1989) believed that traumatized children need guidance and direction from the therapist, in order to move away from overwhelming fears and towards an appropriate sense of power.

Mills and Allan (1992) described a four-stage model of the play therapy process with children who had experienced maltreatment; this model was based on the authors' clinical experience. They explained that a child's early attachment with his or her parents has a strong effect on the child's developing sense of self as well as his or her relationships with others. They outlined a model of attachment sensitive play therapy, wherein a child may "...reenact the trauma that he or she dare not discuss or question at home for fear of losing the only caretaker he or she knows" (Mills & Allan, 1992). In the first stage of play therapy, the therapist attempts to create an atmosphere of safety and trust in order to help the child feel safe enough to explore his

or her inner experiences. The authors explained that the maltreated child may react with caution, watchfulness, obsessive cleaning, or overt aggression; they stated that the child's approach may be determined by the nature of the maltreatment the child received. Also in the first stage the child begins to express his or her pain through symbolic reenactment and regressive behavior that correlates with the developmental level of the child when he or she was maltreated. Mills and Allan (1992) stressed that the metaphoric nature of the play "...allows the child a safe distance to work without re-traumatization." In the second stage of treatment, the child is described as testing the limits of the therapeutic relationship in order to determine whether the therapist chooses to maintain a stance of acceptance even in the face of behavior that typically elicits rejection of the child from primary caretakers. In this stage, the child is believed to let go of his or her defenses as he or she begins to trust that the acceptance from the therapist is real and unconditional. This experience of acceptance despite testing allows the child's natural intrinsic growth tendencies to be released. In the third stage of therapy, Mills and Allan (1992) postulate that the relationship between child and therapist becomes central to the child's work and that symbolic play decreases. They explained that transference is the primary theme of this stage and that cautious interpretations from therapist are appropriate in helping the child become more conscious of previously repressed painful experiences. In the final stage of therapy, the child is described as naturally spending more time talking about issues or engaging in creative or reciprocal play. Mills and Allan (1992) assert that more directive interventions, such as role-play or teaching problem-solving skills, are appropriate during the termination stage.

Virginia Axline is widely acknowledged as the originator of client-centered play therapy (Dorfman, 1965; Guerney, 1983). Axline did not address trauma *per se*, but this author asserts that the description of her work with Dibs represents a successful course of therapy with a

traumatized child. Dibs displayed many behavioral indicators of trauma, or “maladjustment,” the term used during Axline’s era. He was grossly regressed and withdrawn, and his play seemed to have the repetitive, driven quality of the post-traumatic play, as described by Terr (1983). Dibs also had a reported history of events that many would consider traumatic, such as being locked in his room and consistently rejected by caregivers. Axline’s description of Dibs’ progress in play therapy is certainly positive; he moved from a deeply fearful existence to one that may be described as spontaneous, joyful and free (Axline, 1964, p. 214).

Guernsey (1983) further elucidated the client-centered play therapy approach. She stated that, “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” (Guernsey, 1983, p. 21). This freedom is paired with the opportunity of the child client to take responsibility for his or her own healing and growth. Client-centered play therapists believe that all individuals, including children who have experienced trauma, can achieve the realization of selfhood. Guernsey (1983) explained that in client-centered play therapy, the “...resources of the therapist, the play setting, and the child are all utilized to meet the child’s emotional needs as he or she is currently experiencing them, and to further their expression” (p. 24) This process is believed to optimize development for all children, and seems particularly applicable to children who have experienced trauma. The process of client-centered play therapy is allowed to unfold at the child’s pace and direction; the therapist refrains from directing the child towards or away from traumatic material.

Landreth (1991) described several basic tenets for relating to children; these tenets apply to relationships with all children. The ninth tenet seems especially applicable to children who have experienced trauma; that is, “Children will take the therapeutic experience to where they

need to be...the therapist does not attempt to determine when or how a child should play” (Landreth, 1991, p. 50). This view accounts for the child-centered play therapist’s trust that the child is able to tolerate any play, including posttraumatic play, because the therapist trusts that the child has an inner wisdom that is self-protective and self-enhancing. Another basic belief of child-centered play therapists is that the “...constantly changing integration within the child seems to explain the tremendous resiliency within children and the generating effect of hope” (Landreth, 1991, p. 58). This central tenet of child-centered play therapy accounts for the hope of the child-centered therapist, as well as the child. Child-centered play therapists have a deep and abiding faith that all children possess an innate inner capacity to integrate unique life experiences in a way that is growth enhancing. This belief applies equally to children who have experienced trauma.

Daniel Sweeney explained that his child-centered play therapy approach does not take a more prescriptive stance with traumatized children than with children who have other presenting issues (Sweeney, 1997). Sweeney drew upon the work of Terr (1990) and James (1994) in his understanding of the needs of traumatized children, yet he maintained that these needs may be met through the process of child-centered play therapy. The only adaptation that Sweeney used in his work with trauma survivors was to provide additional toys that may relate to the traumatic incident. These toys are simply added to the playroom; the child is allowed to discover and utilize the toys, as the child deems appropriate. Sweeney explained that children are able to master potentially devastating circumstances through the experience of the natural healing powers of imaginative play (Sweeney, 1997, p. 191).

Gallagher, Leavitt and Kimmel (1995) presented a developmental psychoanalytic approach to working with children who have experienced cumulative and repetitive trauma.

These authors drew upon the work of specialists in the field of trauma (Terr, 1983; James, 1989; Herman, 1992; Webb, 1991) as well as Johnson's (1991) writings on the psychoanalytic treatment of adult survivors of trauma. They outlined Terr's (1991) system of categorizing childhood trauma experiences into Type I (single event) and Type II (repeated events) traumas, and they proposed the addition of a Type III trauma. They explained that Type III traumas would "...take into consideration early failures in the caretaker-child relationship." Similar to James' (1995) work, these authors stressed the vital role of attachment in ameliorating the harmful effects of traumatic experiences.

Ashley Tindall-Lind (1999) examined the use of child-centered therapy with child victims of domestic violence. These children are often subjected to a cyclical pattern of victimization and re-victimization, as domestic violence usually follows this course; most therapists would agree that these experiences are potentially traumatic for children. Tindall-Lind advocated the use of a three-stage treatment approach derived from child-centered play therapy research. Tindall-Lind's treatment approach is descriptive rather than prescriptive; that is, she described common needs of children who have experienced trauma rather than prescribing certain behaviors or interventions on the part of the therapist. The stages are: "1) establishing a non-threatening therapeutic relationship, 2) empowering new behavioral decisions, and 3) setting realistic treatment objectives" (Tindall-Lind, 1999). One aspect of the first phase of this treatment process is that the child is always allowed to "...seek comfort when personal exploration becomes too intense..." (Tindall-Lind, 1999). This freedom allows traumatized children to successfully establish a sense of safety and to explore their emotional reactions at their own pace. The second phase of treatment includes the re-enactment of traumatic events through the process of play; this re-enactment is believed to bring about a sense of mastery over

the traumatic material; children are not redirected away from engaging in post-traumatic play. Limit setting is identified as another important component of child-centered play therapy with children traumatized by domestic violence. Therapeutic limit setting is believed to assist the child in determining acceptable ways to express difficult emotions. This process seems particularly important for children who have experienced family violence and witnessed adults utilizing inappropriate behavioral outlets for aggression. The final phase of treatment includes setting realistic treatment expectations; essentially, the play therapist should remain closely attuned to the child's struggles in the therapy process, and should focus on the safety of the therapeutic relationship if the child appears to be overwhelmed.

Play Therapy Research with Traumatized Children

Case study research. Allan and Lawton-Speert (1993) recounted their clinical work with a boy who had a suspected history of severe incest, an experience that most clinicians would consider a potentially traumatic experience. The authors used a Jungian play therapy approach in their work with this child. They explained that Jungians have a strong belief that the psyche knows how to heal itself; therefore, they allowed the child to direct the process of play therapy. Allan and Lawton-Speert (1993) stated that the child seemed to engage in intense and highly sexualized play, as well as conflict-ridden play for a period of several months. Throughout this period of therapy, the boy also exhibited intense negative outbursts, both in therapy and in the home and school environments. His play eventually became more relaxed, less sexualized, and less conflict-ridden towards the end of treatment. This case study supports Terr's (1983) descriptions of the intense, ritualistic quality of post-traumatic play.

In a case study report, Cockle and Allan (1996) explored the play therapy process of a female child victim of sexual abuse; they explained that during the "working phase" of

treatment, this child was deeply engaged in intense, conflict-ridden play that seemed to be related to the trauma of sexual abuse. Her play eventually evolved and became more expressive of positive feelings of power and strength. This case study also supports the notion that the play of children with a history of trauma is qualitatively different from the play of children with no known trauma history.

In a dramatic case study, Terr (2003) described her work with a severely traumatized child over a period of twelve years of psychotherapy. This author is widely acknowledged as the originator of the construct of posttraumatic play (Terr 1981/1983/1988/1990/1994; see also Eth, 2001; Gil, 1991; James, 1994; Schaefer, 1994). Terr (2003) explained that she encountered a child in therapy who had experienced severe sexual abuse and neglect; the child had been placed in foster care after her infant sister was found dead in the home, with evidence of shaken baby syndrome, sexual abuse and adult male and female bite marks that deeply penetrated the body. The author explained that upon beginning therapy, the child behaved as though she had been raised in the wild; she growled, sniffed at adults' genitals, bit, hissed, and shook her body violently. The child was 29 months old at the beginning of treatment. Terr (2003) approached the child on the basis of her theoretical understanding of infantile Posttraumatic Stress Disorder. She shaped the child's treatment through three core principles of healing: that is, "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)." Terr (2003) described the child's process of engaging in posttraumatic play, which she seemed to view as a form of abreaction for the child. Terr (2003) explained that although she believes that therapists may play a role in shaping corrective experiences for children she maintains that children must play an active role in their own healing

processes. Terr (2003) stated, “My current idea of correction includes one important addition. Therapeutic suggestions may be made and clues given, but in the end a traumatized child should conceptualized the corrective solutions for himself.” In addition to these three healing principles, Terr (2003) explained that she cultivated a “spirit of playfulness” that guided her work with this child; she felt that a strong positive transference with the child was necessary in order to counterbalance the extreme negativity of the child’s early experiences with abusive caretakers. Terr’s (2003) current experiences, as described in this case study, support her earlier conception of the construct of posttraumatic play. In addition, she represents a theoretical framework within which one may address the unique needs of traumatized children.

Descriptive research. In a descriptive study of the play therapy behaviors of children residing in a battered women’s shelter, Frick-Helms (1997) explained that she and her research associates observed many signs of trauma in these children. She noted that 12% of the children in the shelter had significant speech delays, and that most of the children were referred for play therapy due to aggressive, acting out behavior within the shelter environment. Frick-Helms (1997) reported that these children played out highly aggressive and conflict-ridden themes, and that “...symptoms of increased arousal were seen in 10 of the 11 preschool age children.” The children further had play that was repetitive and driven, that seemed to be trauma-related reenactments.

McClellan-Russell (1994) sought to examine the relationships between traumatic stress and the free play behaviors of school-age children. McClellan-Russell (1994) noted that the literature related to trauma in children supported the use of play as both a potential indicator of traumatic stress and a viable component in the treatment of traumatized children. In addition, she noted the lack of empirical research supporting the validity of play as an indicator of

traumatic stress in children (McClellan-Russell, 1994). McClellan-Russell (1994) evaluated the free play behaviors of 75 six to nine year old children who had been referred for psychological evaluation. Each child in the study was invited to engage in a play session with an examiner. The play session included one interactive game with the examiner and a subsequent 25-minute period of free play. The child's free play was later evaluated in order to test the hypotheses of this study. The trauma history of each child was evaluated using the Russell Inventory of Stress for Children (RISC; McClellan-Russell, 1994), which was developed for use in this study. A previously existing play scale was used to evaluate the play behaviors of the child participants (Gordon, 1992). The play scale consisted of 46 play items believed to be representative of a broad range of play categories. Examples of play categories include: "...symbolism, (e.g., sophisticated object situations), language (e.g., child narrates play), mood or affect, (e.g., anxious), interaction with examiner, (e.g., seeks reassurance)" etc. Using Q-sort methodology, raters sorted the 46 play descriptors into categories ranging from "least characteristic" to "most characteristic." Three expert raters rated 14 videotapes in order to establish criteria by which to evaluate raters' judgments. The three expert raters reached an average interrater agreement of .70. Ten doctoral students were then trained to serve as raters for this study; the training involved a review of a manual defining and describing each play behavior, as well as coding pilot play sessions. Analysis of the data revealed the following findings: a) boys with higher levels of traumatic stress were less inhibited, more expressive, and less cooperative in their play, b) this response pattern was not true for girls involved in the study, c) family environment had a significant impact on negative play behaviors related to traumatic stress, and d) children who experienced numerous stressors or experiences of abuse exhibited more disrupted and less expressive play than children with fewer stressors or no history of abusive experiences

(McClellan-Russell, 1994). McClellan-Russell (1994) noted that the lack of repeated observations of play behaviors is a significant limitation of her study, especially in light of the importance of repetitive play in the literature related to posttraumatic play.

Quasi-experimental and experimental research. Several outcome-based studies have been conducted to investigate the efficacy of play therapy with children who have experienced sexual abuse or domestic violence (Kot, 1995; Perez, 1987; Reams & Friedrich, 1994; Saucier, 1986; Scott, Burlingame, Starling, Porter, & Lilly, 2003; Smith, 2000; Tyndall-Lind, 1999). Individual children react in unique ways to experiences of abuse; however, many children who have been victimized do show signs of a traumatic response to these experiences (Gil, 1994; Smith, 2000). Therefore, the author will explore findings of studies related to play therapy with abused children or child witnesses of domestic violence.

In an outcome-based study, Kot (1995) examined the efficacy of child-centered play therapy for child witnesses of domestic violence residing in a domestic violence shelter. Kot (1995) used twelve daily intensive individual play therapy sessions as her treatment; she compared these children with a control group. She reported that the children in the treatment group exhibited significant increases in self-concept in comparison to the control group; self-concept was measured using the Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST; Joseph, 1979). In addition, Kot (1995) found that children in the experimental group displayed significantly lower scores on the total behavior problems scale of the Child Behavior Checklist (CBCL; Achenbach, 1986). These children also exhibited significantly lower scores on the externalizing behavior subscale of the CBCL; this measure may be considered an outward expression of the child's inner distress. Kot (1995) concluded that child-centered play therapy is

an effective treatment intervention for children who have lived through the traumatic experience of witnessing violence within the home.

Tyndall-Lind (1999) built upon the work of Kot (1995) as she investigated the effectiveness of intensive sibling group play therapy with children residing in a domestic violence shelter. Tyndall-Lind (1999) used the Joseph Pre-School and Primary Self-Concept Screening Test (JPPSST; Joseph, 1979) to measure child participants' self-concept; she found that children in the treatment group exhibited higher levels of positive self-concept while children in the control group exhibited decreased levels of positive self-concept. In addition, Tyndall-Lind (1999) noted a significant increase in mothers' perceptions of their children's total adjustment, as well as significant reductions in the levels of hostility exhibited by the children; these maternal perceptions were measured by the Child Behavior Checklist (CBCL; Achenbach, 1986). Maternal perceptions of children's internalizing behaviors were also decreased in the treatment group; that is, the mothers of the children who received intensive sibling group play therapy rated their children on the CBCL as less withdrawn, having fewer problems with somatic complaints, and having lower levels of anxiety and depression. This study supports the conclusion that child-centered play therapy is effective with children who have a history of interpersonal trauma, as domestic violence may be considered a form of interpersonal trauma.

In a similar outcome-based study, Smith (2000) explored the effectiveness of intensive filial therapy with children residing in a domestic violence shelter. Filial therapy is a form of play therapy wherein the parent or caretaker is trained to conduct therapeutic play sessions with his or her child, under the guidance of a play therapist (Bratton & Ray, 2000). Smith (2000) further drew upon the work of Kot (1995) and Tyndall-Lind (1999) as she conducted a comparative analysis of the effectiveness of intensive filial therapy, intensive individual play

therapy, and intensive sibling group play therapy. Smith (2000) provided intensive filial therapy training to two groups of mothers residing in shelters due to domestic violence. She adapted the Landreth (1991) 10-week filial therapy model for use in a short time span; she provided participants with twelve one and a half hour-long training sessions within a three-week period. During this time, participants were expected to conduct twelve parent-child play sessions 30 to 40 minutes in length. Smith (2000) used the same measures of children's self-concept and maternal perceptions as were used in the Kot (1995) and Tyndall-Lind (1999) studies; this consistency facilitated the comparisons between these three studies. Smith (2000) found significant results on nine of sixteen hypotheses; children in the treatment group were found to have significant increases in positive self-concept as measured by the Joseph Preschool and Primary Self-Concept Screening Test (JPPSST; Joseph, 1979), as well as fewer behavioral problems as measured by mothers' reports on the Child Behavior Checklist (CBCL). In addition, Smith (2000) found that the mothers who received intensive filial therapy training displayed significant increases in their expressions of acceptance and empathy during their parent-child play times, as measured by the Measurement of Empathy in Adult Child Interactions (MEACI; Stover et al., 1971) as adapted by Bratton and Landreth (1995). Finally, Smith (2000) concluded that, intensive filial therapy is comparable in its effectiveness to intensive individual play therapy and intensive sibling group play therapy. Smith (2000) clearly viewed filial therapy as an appropriate play-based intervention for children who have experienced trauma. She explained that, "From a trauma perspective, the optimal time for prevention and intervention is during the acute period following a traumatic event...play therapy is an effective therapy, seemingly compatible with the needs of child witnesses for a relational therapy that is non-threatening, nurturing, and adaptable for use with various emotional and behavior problems."

The efficacy of client-centered play therapy with sexually abused children was recently investigated (Scott, Burlingame, Starling, Porter, & Lilly, 2003). These researchers recruited twenty-six children, aged three to nine, for participation in the study. The inclusion criteria for the study stipulated that the allegations of sexual abuse must have been substantiated by the state agency that investigates such allegations. Ten therapists were recruited to provide ten sessions of client-centered play therapy to these children; all therapists had completed a play therapy course, and all attended a structured workshop related to the procedural protocol for the study. The following assessment instruments were completed upon intake as well as upon completion of the study: The Abuse Behavior Checklist (ABC; Chafin & Wherry, 1993); the Joseph Preschool and Primary Self-Concept Screening Test (JPPSCS; Joseph, 1979); and the Behavioral Assessment System for Children-Parent Rating Scale (BASC-PRS; Reynolds & Kamphaus, 1992). In addition, the researchers measured therapist-related variables using the Client-Centered Play Therapist Rating Scales (CCPTRS; Scott, Starling, Anderson, & Porter, 1996). The researchers (Scott, Burlingame, Starling, Porter, & Lilly, 2003) found mixed support for the efficacy of client-centered play therapy with sexually abused children. Significant results were reported on the JPPSCS Competency subscale; that is, children reported having significantly fewer problems associated with competence at the conclusion of the study. No significant changes were evident in parents' reports of their perceptions of their children's behaviors, as measured by the BASC-PRS. The researchers (Scott, Burlingame, Starling, Porter, & Lilly, 2003) noted a trend in the data that suggests that children whose abusers were family members or non-custodial parents evidenced less improvement than children whose abusers were more distant. The results of this study showed inconclusive evidence of the efficacy of client-centered play therapy with sexually abused children (Scott, Burlingame, Starling, Porter, & Lilly, 2003).

The authors stressed the need for measurement instruments that assess more subtle changes in children's behavioral and emotional adjustment, as well as the need for large studies that compare various treatment approaches (Scott, Burlingame, Starling, Porter, & Lilly, 2003).

Measurement Instruments Designed to Assess the Impact of Trauma on Young Children

The majority of measurement instruments designed to assess the impact of trauma on young children are designed to measure symptoms related to posttraumatic stress disorder (PTSD). Existing measures of PTSD in children may be categorized broadly as using interviewer-based methods, self-report, or a combination of these approaches. Drake, Bush, and van Gorp (2000) provide a detailed overview of recently developed measures of PTSD in children.

The Child and Adolescent Psychiatric Assessment: Life Events Section and PTSD Module (CAPA-PTSD; Costello et al., 1998) is "...an interview-based measure that would detail the timing of events and the onset of symptoms" associated with PTSD (Drake, Bush, & van Gorp, 2000). The interview may be conducted with either (or both) parent or child. Following the structured interview, the clinician probes for information related to the severity of the potentially traumatic event as well as the onset of symptoms indicative of PTSD. The responses obtained from parents or children are then analyzed through a computerized scoring system that produces a diagnosis. The validity of the CAPA-PTSD was evaluated using a group of 58 parent-child dyads; the reliability was found to be fair for children's responses and fair to excellent for parents' responses. Although this interviewer-based measure seems quite comprehensive, there appear to be several limitations of this measure. First, the child's behavioral indicators of emotional distress are assessed through either self-report or parents' reports, rather than directly observed by the clinician. The primary drawback to using children's

self-reports is that children lack the cognitive development necessary to engage in self-reflection and insight that seem necessary for self-reports to be valid. Two potential limitations of parents' reports are that parents are not trained to recognize subtle behavioral indicators of emotional distress (the therapist presumably is), and biased reporting may stem from parents' own issues related to the child's trauma. Second, because the CAPA-PTSD "...was validated in children ages 9-17, the authors caution against its use for children younger than 8" (Drake, Bush, & van Gorp, 2000). Finally, the CAPA-PTSD does not appear to tap play behaviors or other developmentally sensitive modes of expression for young children. For these reasons, the CAPA-PTSD does not fill the need for a developmentally sensitive assessment of the impact of trauma on young children.

The Clinician-Administered PTSD Scale for Children and Adolescents (CAPS-CA; Nader et al, 1998) seems to employ a combination of interviewer-based and self-report methodology. The CAPS-CA is a structured interview that begins with a child-friendly self-report questionnaire that is administered by the clinician. The questionnaire includes pictorial responses (sad faces, happy faces, etc.) that the child may choose from as the examiner presents questions related to traumatic events that the child has reportedly experienced. After completion of the questionnaire, the clinician may ask follow-up questions, for example, asking the child "what do you do to feel better when you are feeling bad?" This approach has a fundamental limitation; that is, even though the CAPS-CA allows the child to respond in a child friendly (pictorial response) format, the child is still being asked to respond to questions that require advanced verbal skills and reflective judgment on the part of the child. Young children lack the cognitive development that allows for reflective judgment and insight into their own internal experiences. It seems that this developmental limitation would preclude the use of any self-

report measures with very young children. According to Landreth (2000), "...restricting children to verbal expression automatically places a barrier to therapeutic relationship by imposing limitations that in effect say to children, 'You must come up to my level of communication and communicate with words'" (p. 14). This limitation seems equally true when a question is posed to a child in a verbal format, even if the child is allowed to respond to the verbal question by pointing to a picture. An additional limitation of the CAPS-CA is that validity data was established using a group of incarcerated adolescent males (Drake, Bush, & van Gorp, 2000). The CAPS-CA seems clearly unsuitable for use with very young children at this time.

The Child Posttraumatic Stress Reaction Index (CPTS-RI; Frederick, 1985; Frederick et al. 1992) is designed to be used as either a written self-report measure with older children or as a structured interview with younger children (Drake, Bush, & van Gorp, 2000). The CPTS-RI is reported to have a high level of internal consistency as well as a high level of known group convergent validity. It is the most widely used assessment of PTSD in children (Drake, Bush & van Gorp, 2000). According to Perrin (2000), the CPTS-RI self-report measure is appropriate for use with children 8 years or older and no lower age limit has been established for the measure. As noted above, it is this author's belief that young children lack the cognitive ability to respond effectively to self-report measures, including structured interviews that children to respond through verbal means. Therefore, the CPTS-RI does not appear to fill the need for a developmentally sensitive assessment of the impact of trauma in young children.

The Trauma Symptom Checklist for Children (TSCC; Briere, 1996) is an instrument that relies fully on children's self-reports of PTSD symptoms. According to Briere (1996), the TSCC is a paper and pencil style checklist that may be administered in either individual or group formats. In addition to my view that young children are developmentally incapable of

responding to verbally formed questions, I have concerns about asking children to respond to sensitive questions related to traumatic experiences within a large group format. In a clinical setting, the interviewer would presumably be able to respond to fears or anxieties that may be awakened in the child through the process of probing for details about traumatic events and responses. This type of individual attention is not possible in a large group format and there seems to be a real danger that children who are reminded of traumatic experiences may not be given adequate support in dealing with painful feelings that often accompany these memories. Finally, the author of the Trauma Symptom Checklist for Children (Briere, 1996) explained that the TSCC was normed on a group of children ranging in age from 8 to 16. Thus, the TSCC is clearly not appropriate for use with very young children.

An additional measure of PTSD in children is entitled: Darryl, A Cartoon Based Measure of Cardinal Post-Traumatic Stress Symptoms in School-Age Children (Neugebauer, 1999). Darryl is a clinician-administered assessment that utilizes a cartoon character, named Darryl, as a child-friendly means for interviewing children about traumatic experiences. The clinician follows a script that accompanies each cartoon and the child is directed to point to one of three responses. According to Neugebauer (1999), the language used in this cartoon based interview is appropriate for children as young as six. The instrument is reported to have a high level of internal consistency. The measure was also significantly correlated with children's scores on a traumatic event exposure scale (Drake, Bush & van Gorp, 2000). Although this measure seems innovative in its use of a thoroughly child-friendly format, this researcher remains skeptical about the use of any self-report measures with young children. Darryl fails to utilize a fully developmentally sensitive approach to the assessment of PTSD in young children.

This review clearly indicates that current instruments designed to assess PTSD symptoms in children rely heavily on either interviews or self-report formats that require the child to respond to questions that are posed in a verbal format. Given that young children lack the cognitive capacity to adequately respond to abstract, verbal concepts, it seems clear that a new approach to the assessment of PTSD or posttraumatic responses is necessary. This leads to the investigation of current measurement instruments that are based on clinicians' observations of the play behaviors of young children. Such instruments are reviewed in the following section.

Play-Based Assessment Instruments

General Play-Based Assessments

The majority of play-based assessments have grown out of the field of child development (Farmer-Dougan et al., 1999; Russ, 2004). Following is a brief review of these measures (for a more thorough review, see Gitlin-Weiner, Sandgrund & Schaefer, 2000 or Schaefer, Gitlin, & Sandgrund, 1991).

The Symbolic Play Test (SPT; Lowe & Costello, 1976) is designed to evaluate the level of symbolic play evident in the play behaviors of children 12 to 36 months of age. The child is presented with a specific set of toys as the examiner records various play behaviors. The behaviors are then rated on a scale that outlines increasingly complex symbolic play behaviors (such as, symbolic self-oriented usage, symbolic doll-related usage, etc.). The SPT was originally standardized on a group of 137 children who were tested repeatedly at three-month intervals. According to Power and Radcliffe (1991), the normative data on the SPT are insufficient due to the lack of monthly test results; this leaves researchers with only estimates of normative data for children in certain age categories. In addition, the reliability (split-half) of the SPT is reported to be "relatively poor at the lower age levels" (Power & Radcliffe, 1991). These

issues complicate the interpretation of validity data for the SPT. However, Power and Radcliffe (1991) reported “...there is a significant relationship between the SPT and conventional measures of cognitive ability for children referred to child development clinics.” These authors assert that a revised and updated edition of the SPT would be helpful, but that the current version of the SPT is “...a valuable adjunctive measure in a preschool assessment battery” (Power & Radcliffe, 1991).

Matheny (1991) provides a play-based assessment that measures temperamental differences among very young children. Matheny (1991) refined and expanded the Infant Behavior Record (IBR; Bayley, 1969). He reasoned that temperamental differences may be uncovered at a very young age due to the apparent fact that temperament has a strong biological component. The Playroom Rating Scale is designed to measure the infant’s emotional tone through observation of facial expressions and “...other features of an infant’s behavior that give clues to emotionality (e.g., motor excitement, vocalizations) (Matheny, 1991). Other dimensions relevant to the concept of temperament are also evaluated, such as the child’s attentiveness and social orientation. Significant positive correlations have been found among subscales of the Playroom Rating Scale and the Toddler Temperament Questionnaire, a report completed by parents (Matheny, 1989; Wilson & Matheny, 1983). These results support the conclusion that the Playroom Rating Scale is a valid measure of infant temperament that utilizes play as a vehicle for understanding very young children.

The PLAY (Farmer-Dougan et al., 1999) was developed as an observation based instrument designed to assess children’s play skills. The child’s play is observed and scored according to a manual that outlines various types of play in a hierarchy of sophistication (e.g., lower levels of play behaviors include solitary-functional and onlooker play, whereas higher

levels of play behaviors include associative-constructive and cooperative-dramatic play). The PLAY is reported to have a high level of inter-rater reliability (.90). In addition, validity studies indicate significant positive correlations among children's PLAY scores and two established measures of cognitive and social development. Specifically, "...children rated as more cognitively and socially competent were found to engage in higher levels of play behaviors, while children identified as less cognitively and socially competent engaged in lower levels of play behaviors" (Farmer-Dougan et al., 1999). This result supports the construct validity of the PLAY as a measure of children's development that capitalizes on the child's natural means of expression, play. The PLAY would seem to be a useful adjunctive measure of children's play skills; however, the PLAY is limited to use in settings that allow for social interactions among children, and is therefore not appropriate for use in evaluating children engaged in individual play therapy.

The Mayes Hyperactivity Observation System (MHOS; Mayes, 1982) is a play-based assessment instrument designed for use as a diagnostic tool when Attention Deficit Hyperactivity Disorder is suspected. The child is presented with a standardized play situation and is allowed to engage in free play for a period of ten minutes. The observer sits in the room with the child and records the child's play behaviors in ten second intervals. The child's play behaviors are later categorized as adaptive play, nonadaptive play, etc. According to Mayes (1991), reliability estimates for the MHOS are quite high (inter-rater reliability was achieved with an average of 97%). The MHOS was standardized on a sample of "19 normal and 21 hyperactive males." Validity studies on the MHOS have yet to be conducted (Mayes, 1991). This measure is an example of a play-based assessment instrument that was created to fill the need for a developmentally sensitive diagnostic tool. This seems to indicate that the use of play-based

assessments with young children is becoming more widely accepted in the field of children's mental health.

The Transdisciplinary Play-Based Assessment (TPBA; Linder, 1990) was developed in response to the Linder's (1991) observation that children engage in vastly different play behaviors in various settings and with various people. Thus, she recognized a need for a developmentally sensitive assessment that is also sensitive to the social contexts within which children live their lives. Application of the TPBA involves a team of observers (from various disciplines) who observe the child in a variety of play settings. Parents are actively involved in the process; they are invited to observe play sessions along with professionals, and to comment on whether the observed play seems typical or atypical for their child. The child's play behaviors are videotaped, and observers record play behaviors as they occur. The child's play behaviors are coded according to four categories, including: cognitive development, social-emotional development, communication and language development, and sensorimotor development. According to Linder (2000), the TPBA has demonstrated high levels of internal consistency reliability (Friedli, 1994) and inter-rater reliability (Newbord, Stock, Wrek, Guidubaldi, & Svinicki, 1984). Several studies have been conducted to investigate the validity of the TPBA. Two studies supported the content validity of the TPBA; these investigators surveyed early childhood professionals who seemed likely to use a measure such as the TPBA. They found that these professionals endorsed the TPBA as highly relevant to the constructs that it is intended to measure (Friedli, 1994; Linder, Green, & Coates, 1996). Concurrent validity of the TPBA was investigated through a comparison of children's ratings on the TPBA with their scores on the Batelle Developmental Inventory. The TPBA was considered equally accurate as this standardized measure for the purpose of determining children's eligibility for services to

address developmental concerns (Linder, 2000). The research seems to support Linder's (2000) claims that the TPBA is a developmentally sensitive and holistic approach to assessing the needs of children.

Russ (2004) noted the well-established tradition of play-based assessments in the field of child development and the concomitant lack of standardized play-based assessments in the behavioral sciences. In an effort to bridge this gap, the Affect in Play Scale (APS; Russ, Niec, & Kaugers, 2000), was developed as a standardized measure of children's affective expressions in play for use in behavioral science research settings. The APS is designed to measure various types of affect expressed within children's' fantasy play as well as the amount of these affects expressed. According to Russ (2004), the APS consists of a standardized play task wherein the child is instructed to play with two human puppets and three small blocks. The child is told to "...be sure and have the puppets talk out loud" (Russ, 2004). If the child stops playing before the five-minute play period is finished, the child is given the prompt, "you still have time left, keep playing." Each utterance in the child's play is then transcribed and rated according to the level and type of affective expression and the type of affect expressed through the play (Russ, 2004). The APS is reported as having high levels of inter-rater reliability, with the exception of the intensity of affect subscale. Several studies have been conducted in order to establish the construct validity of the APS. Russ (1993, 1999) reported findings that support the relationship between affective processes and creativity in a study that revealed significant correlations between the APS and measures of creativity. Russ and Grossman-McKee (1990) found significant relationships between affective expression in play and divergent thinking abilities in children. Christiano and Russ (1996) found a significant positive correlation between children who are able to use play for affective expression (as measured by the APS) and children's

general coping ability. Additional validity studies on the APS have explored relationships between affective expression in play and self-esteem (Peterson, 1989), pain complaints (Grossman-McKee, 1989), internal representations of empathy (Niec & Russ, 1996), and imagination and anxiety (Goldstein, 2002) (Cited in Russ, 2004). These studies represent a substantial body of evidence supporting the APS as a reliable and valid measure of children's affective expressions in play.

Although the APS seems to capture a broad range of affective expressions embedded within children's fantasy play, it does not seem to meet the need for a developmentally sensitive measure of the impact of trauma on children. First, similar to the previously mentioned instruments, the APS does not address types of play that are associated with traumatized children (Gil, 1991; James, 1989; Shelby, 2000; Terr, 1983). Second, the APS is based on a structured puppet play task; that is, the child is presented with a set of puppets and is asked to play with the puppets for a certain period of time. It is this structured playtime that is then assessed using the APS. Although Russ (2004) claims that the APS play task is unstructured enough to allow the child to "present themes and affects that are habitual to him or her," I am somewhat skeptical about this claim. Due to its use of a structured play task, the APS would be inappropriate for use in a naturalistic setting with a clinical population. However, future researchers may find it fruitful to adapt the APS for use with unstructured play therapy sessions. Finally, the APS provides an assessment of only five minutes of a child's play; this short amount of time seems quite inadequate as a basis for uncovering the impact of trauma on an individual.

Play-Based Assessments Related to Play Therapy

The following measurement instruments related to play or play therapy were reviewed: the Play Therapy Observation Instrument (PTOI; Howe & Silvern, 1981), the Play Behaviors

Adjustment Rating Scale (PBARs; Oe, 1989), 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).

The Play Therapy Observation Instrument (PTOI; Howe & Silvern, 1981) was developed as a general assessment of children's functioning within the context of play therapy. Howe and Silvern (1981) conducted an extensive review of the literature related to play therapy; they distilled this information into 31 behavioral categories that reflected concepts relevant to the clinical treatment of children in play therapy. The authors then conducted an initial reliability study wherein 76 videotaped play therapy segments were rated using the PTOI. Each segment was 12 minutes in length. Of these 31 behavioral categories, 13 were scored with an interrater agreement (within a one point range) of 80% or higher, with an interclass correlation of .48 or higher across all segments rated (Howe & Silvern, 1981).

The PTOI was adapted by Perry and Landreth (1991) to include 13 items with three subscales; social inadequacy, emotional discomfort, and use of fantasy. Perry (1988) used the PTOI in an investigation of the differences in the play therapy behaviors of adjusted and maladjusted children. Perry (1988) examined initial play therapy behaviors of thirty children who had been previously identified as adjusted or maladjusted. She rated three twelve-minute segments for each child; she analyzed the resulting data using discriminant function analysis techniques. Perry (1988) found that the PTOI did discriminate between adjusted and maladjusted children and that the items on the emotional discomfort subscale accounted for the discrimination between these two groups. Later analyses of these data uncovered additional discriminating items in the social inadequacy and use of fantasy play subscales (Perry & Landreth, 1991).

In a later study, Rosen, Faust, and Burns (1994) used the PTOI to evaluate the process and outcome of psychotherapy for fourteen children ranging in age from four to six years. The researchers collected two videotaped play therapy sessions for each child, including session number one and session number eight. Half of the children received client-centered play therapy and half received psychodynamic play therapy. Doctoral students in a clinical psychology program were recruited to serve as therapists; none of the students had had previous training or experience conducting play therapy. Two graduate students were trained to use the PTOI to rate the videotaped play therapy sessions. The researchers (Rosen, Faust, & Burns, 1994) explained that the raters achieved an inter-rater reliability of 85% (calculated as the total number of agreements between judges divided by total number of items on scale). Intraclass correlation coefficients ranged from .65 to .95 over the entire data set. These results are consistent with Howe and Silvern's (1981) report that they obtained an interrater reliability of .70 or better on the three primary scales of the PTOI. Rosen, Faust, and Burns (1994) reported that they found no significant differences between the PTOI scores of children who received either client-centered or psychoanalytic play therapy. However, significant differences were found when the researchers examined changes in the Fantasy Play scores and Quality of Interaction from session one to session eight. As therapy progressed, the children engaged in more frequent use of fantasy play; the authors asserted that the children seemed to learn to use fantasy play to a greater degree as play therapy progressed. In regard to the Quality of Interaction subscale, the authors noted that children in both groups exhibited higher levels of aggression, conflict, intensity of affect, and rejection of the therapist in the eighth session. They (Rosen, Faust, & Burns, 1994) explained that, "...Although the interaction tended to be negative in content, the increase in frequency in engagement with the therapist may be considered a positive process."

The researchers concluded that the PTOI "...is sufficiently sensitive to detect behavioral and affectual change in child and therapist interactions" (Rosen, Faust, & Burns, 1994).

Although the PTOI seems to have adequate discriminant validity, as well as sensitivity to changes within the play therapy process, it fails to address key play behaviors that are hypothesized to be indicative of trauma, especially repetitive play (Terr, 1991; see also Eth, 2001; James, 1994). Given that repetitive play behaviors have taken on a central role in the diagnosis of PTSD in children (Eth, 2001), it seems that the observation of this feature is crucial in a measurement of the play behaviors of traumatized children. For these reasons, the PTOI seems lacking as a measure of the play therapy behaviors of traumatized children.

The Play Behaviors Adjustment Rating Scale (PBARS; Oe, 1989) was based on the earlier work of Finke (1947), Hendricks (1971), and Withee (1975) and was developed primarily for use as a diagnostic instrument. Oe (1989) explained that the PBARS was the result of nineteen revisions of the previous instruments, in consultation with a senior faculty advisor. The final version of the PBARS was composed of thirteen behavioral categories, each of which included a measure of both frequency and degree. Oe (1989) suggested that the behavioral categories be grouped into three subscales, including type of play, focus of play, and attitude in play. Oe (1989) applied the PBARS to the initial play therapy sessions of thirty children. Fifteen of the children had been previously identified as well adjusted and fifteen had been previously identified as maladjusted (via ratings from parents and teachers). Oe (1989) served as both the researcher and rater in her study. In preparation for rating the videotapes, Oe (1989) engaged in a vigorous training regimen that included studying the behavioral descriptors outlined in both Hendrick's (1972) and Withee's (1976) instruments, as well as the categorical descriptors in the PBARS manual. In addition, Oe (1989) reported that she used nonexperimental videos as

training videos, and that she and a senior faculty member (with 23 years of experience teaching play therapy courses) worked together to achieve an acceptable level of interrater reliability. Oe (1989) reported that she was able to attain an 89% interrater agreement rate prior to rating the videotapes in her study. Further, she reported that an interrater agreement check was conducted midway through the study and that the 89% agreement rate was maintained. Oe (1989) used chi-square statistic to determine whether the two groups of children differed significantly along the behavioral dimensions outlined in the PBARS. Oe (1989) found that these two groups did, in fact, differ in the following ways: a) maladjusted children displayed a significantly higher level of intensity of self-accepting behaviors, non-acceptance of environment behaviors, and dramatic or role behaviors; b) maladjusted boys displayed significantly higher levels of self-accepting behaviors, non-acceptance of environment behaviors; and c) maladjusted children expressed significantly higher levels of intensity in dramatic or role play. Oe (1989) noted that the setting of the initial play session may impede the assessment of children's play behaviors; she suggested that it may be more appropriate to conduct an assessment during the child's third play therapy session in order to allow the child "...time to move beyond the 'new experience' of the initial session" (Oe, 1989).

Although the PBARS seems to capture a wide spectrum of play behaviors, it has several limitations, which preclude its utility as a measure of the play therapy behaviors of traumatized children. First, although the PBARS does address play behaviors that may be related to the concept of posttraumatic play the items are only tangentially related. For instance, the frequency and intensity of exploratory behaviors or negative attitudinal behaviors may provide useful information, but the clinician or researcher must extrapolate their relevance to the play of traumatized children. Second, although Oe (1989) demonstrated the discriminant validity of the

PBARS, evidence of other forms of validity are lacking due to the fact that the PBARS has not been utilized in any research setting outside of Oe's (1989) dissertation study. Finally, feedback from a team of advanced doctoral students (addressed below) indicated that using the PBARS was quite cumbersome due to the total of twenty-six subscales (thirteen subscales including both frequency and intensity measures) required with each rating. This lack of usability seems to be a major hindrance to the use of the PBARS as a measure of the processes of change within play therapy, which requires multiple ratings of behavior over time.

Nader and Pynoos (1991) presented a protocol for conducting assessment interviews with young children through the use of play and drawings. These authors drew upon earlier works related to the play of traumatized children (Terr, 1981; see also Pynoos & Nader, 1989) as they distilled their understanding of the impact of trauma into a structured interview format. These authors asserted that the child's play and drawings may provide the clinician with an understanding of the child's embedded perceptions of the traumatic experience, and that these modes of expression may allow the child to transform these embedded perceptions (Nader & Pynoos, 1991). Nader and Pynoos (1991) advocated the use of a structured interview with the child that includes the following elements: first, the child is allowed to engage in free play and is then asked to draw pictures or act out the worst moment related to the traumatic event the child has experienced. Next, the "specialized trauma interview permits step-by-step reexamination of the event..." (Nader & Pynoos, 1991). Children are then directed to tell the story or act out the event in slow motion in order to add detail to the story and to explore emotional responses in greater depth. In the next phase of the interview, the therapist engages in "...active interventions that expand the child's exploration of her or his subjective experience [in order to] restore ego functioning, in contrast to the lack of resolution from the child's own unassisted traumatic play"

(Nader & Pynoos, 1991). According to the authors, a trusting relationship with the child must be established before this interview is implemented.

This structured interview assessment appears to employ a developmentally sensitive approach to the assessment of posttraumatic stress disorder in children. However, one limitation seems prominent; that is, while the authors acknowledge the repetitive nature of posttraumatic play in children, their interview protocol does not allow for the assessment of posttraumatic symptoms over time. Therefore, this structured interview would not seem to be an appropriate measure of PTSD in children if used in isolation. In fairness, the authors (Nader & Pynoos, 1991) appear to view the interview as the beginning of a brief therapy relationship with the child; it seems likely that the authors would engage in a process of continual refinement of their assessments as therapy progressed. It seems that the interview protocol presented by Nader and Pynoos (1991) may have a high degree of clinical utility as a diagnostic measure of the impact of trauma on young children. The author of the current study ascribes to a non-directive theoretical orientation, and is therefore concerned about the potentially intrusive nature of the interview outlined by Nader and Pynoos (1991). It would seem that the clinician administering this structured interview must be highly sensitive to the child's readiness to touch upon painful feelings related to traumatic events in the child's past. In conclusion, due to its limited scope (one time interview) and its subjective nature, the interview does not seem appropriate for use by researchers who are interested in studying the process of play therapy with traumatized children.

The NOVA Assessment of Psychotherapy (NAP; Faust & Burns, 1991) is an additional measure of the process of play therapy. The NAP was designed to measure process variables related to both participants in the therapist-child dyad; that is, the coding schema includes behavioral descriptors for both child behaviors and therapist behaviors. The NAP includes 29

subscales, 17 measures of child variables and 12 measures of therapist variables. The child variables are categorized as either positive or negative verbal or non-verbal behaviors; for instance, 'argues' is listed as a negative, verbal behavior, whereas 'imitative behavior' is listed as a positive, nonverbal behavior. Therapist variables are categorized as facilitating or channeling. For example, 'interpretation of feeling' is listed as a facilitating therapist behavior, while 'limit-setting' and 'suggestion' are listed as channeling therapist behaviors. The authors (Faust & Burns, 1991) explained that a manual with operationalized definitions of each behavioral code has been developed. The NAP (Faust & Burns, 1991) was developed primarily for use by researchers investigating the process of play therapy; however, the authors offer an abbreviated version of the NAP for use by clinicians. The abbreviated NAP has eight behavioral categories, four per child and four per therapist. On both versions of the NAP, ratings are made at 7-second intervals.

The authors (Faust & Burns, 1991) conducted an initial reliability study using second year graduate students as play therapists and beginning doctoral students as raters. The second year graduate students were trained in play therapy by the researchers via a training program that included, "...required readings, discussion sessions, observations of play therapy sessions and role playing" (Faust & Burns, 1991). The students had had no previous experience conducting play therapy prior to participation in this study. Each student conducted eight play therapy sessions with a volunteer child, under close supervision by the researchers. Raters were trained to observe the frequency of both child and therapist behaviors. Raters were trained through a process of comparing raters' ratings to the criterion ratings that had been previously established by the researchers. According to the authors, (Faust & Burns, 1991), the raters achieved a criterion-referenced reliability of .90 before rating sessions independently. Inter-rater reliability

was reported based on "...the analysis of a single case study in which two 5-minute episodes were coded in 7-second intervals" (Faust & Burns, 1991). The raters achieved an agreement rate of 97.9% on the first five minutes, and 97.1% on the second five minutes. Items with the highest levels of interrater reliability were selected for inclusion in the clinical version of the NAP (Faust & Burns, 1991). Faust and Burns (1991) reported their intention to publish a manual outlining the use of the NAP; however, the manual was not available as of the writing of the present study (W.J. Burns, personal communication, October, 2003).

Although the dual focus on both participants in the play therapy relationship seems to be a real strength of the instrument, the NAP has some significant limitations. First, it was developed in an analog setting using non-clinicians as 'play therapists.' Analysis of case study data revealed only one occurrence of therapists 'reflection of feeling' behavior in sessions one and eight; this seems to confirm the author's opinion that the initial reliability study data may not be applicable to play therapy conducted by experienced play therapists. Second, the NAP requires that each videotape be transcribed before being coded by raters. The process of transcription is extremely resource intensive, and is therefore not conducive to process research, which requires that a large amount of data be rated and analyzed. Finally, similar to the PTOI (Howe & Silvern, 1981) and the PBARS (Oe, 1988), the NAP does not address specific categories of play behaviors that recent authors have associated with the play of traumatized children (James, 1989; Terr, 1983). Therefore, the NAP (Faust & Burns, 1991) does not seem to provide an adequate measure of the play behaviors of traumatized children as they engage in play therapy.

The Children's Play Therapy Instrument (CPTI; Kernberg, Chazan, & Normandin, 1998) is an additional alternative for researchers interested in play therapy research. The CPTI is a

comprehensive measure of children's play therapy behaviors; it includes measures of various types of play including affective, cognitive, dynamic, and developmental components. The CPTI also includes a subscale that specifically addresses the concept of post-traumatic play as described by recent authors (James, 1989; Terr, 1983). The CPTI (Kernberg, Chazan, & Normandin, 1998) requires raters to rate videotaped play therapy sessions in a three step process. The first step in the rating process is called segmentation. In this step, the rater views the videotaped play therapy session in its entirety. The child's behaviors are then coded into four categories, including Pre-Play, Play Activity, Non-Play, and Play Interruption (Kernberg, Chazan, and Normandin, 1998). From this segmentation process, the rater selects only one Play Activity segment for further analysis. The rater writes a narrative description of the play behaviors that occur within this segment. The rater then proceeds to level two, wherein the play segment is further analyzed along the following parameters: Descriptive, Structural, and Adaptive. The Descriptive Analysis includes the following subscales: a) Category of the Play Activity, b) Script Description, c) and Sphere of the Play Activity. The Structural Analysis includes the following subscales: a) Affective Components, b) Cognitive Components, c) Dynamic Components, and d) Developmental Components. The Adaptive Analysis includes the following classification categories: a) Normal, b) Neurotic, c) Borderline, and d) Psychotic. Level Three of the CPTI involves the analysis of patterns in the types of play behaviors over segments. During this stage of analysis, the rater examines the sequence and length of the child's activity within a single session or across several sessions. According to the authors, (Kernberg, Chazan, & Normandin, 1998), the structure and content of the CPTI evolved over a three year period, with the input of ten experienced clinicians.

A preliminary reliability study was conducted wherein three raters applied the CPTI to eight videotaped play therapy vignettes. The vignettes were short video clips of eight different children as they engaged in play therapy with therapists of varying levels of expertise. The children presented with the following diagnoses: Adjustment Disorder, Gender Identity Disorder, Posttraumatic Stress Disorder, Oppositional Defiant Disorder, Separation Anxiety, Pervasive Developmental Disorder, and Conduct Disorder. The therapists who contributed vignettes for training purposes had experience levels that ranged from one year to more than twenty years. The authors noted that although the number of vignettes was small, each vignette was carefully selected so that "...the vignettes embrace the whole spectrum of the different ordinal scales" that are included on the CPTI rating form (Kernberg, Chazan & Normandin, 1998). The raters were three child therapists, one psychiatrist and two psychologists, each of whom had more than ten years of clinical experience. The authors used Landis and Koch's (1977) criteria to judge the degree of interrater 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). According to the authors (Kernberg, Chazan & Normandin, 1998), the raters achieved good interrater agreement on the first level of analysis, that is, segmentation (0.69 weighted kappa). On the second level of analysis, the raters achieved acceptable levels of interrater reliability on the Dimensional Analysis subscales using the intraclass correlation coefficient (ICC; Category of Play Activity, ICC=0.68; Script Description, ICC=0.70; and Sphere of Play Activity, ICC=0.88). Good to excellent levels of interrater reliability were obtained on the Structural and Adaptive scales (Affects Expressed in Play, ICC=0.77; Stability of Role Representation, ICC=0.79; Developmental Level of Play, ICC=0.50; Social Level of Play, ICC=0.56). Low interrater reliability scores were obtained on several subscales (Role Representation, ICC=0.29; Use of

Play Object, ICC=0.33; Use of Language, ICC=0.32; and Adaptive play, ICC=0.09 (Kernberg, Chazan, & Normandin, 1998). The raters established consensual ratings on each of the eight vignettes through an item-by-item analysis. This process resulted in additional refinements of definitions within the CPTI manual.

The CPTI was further evaluated through the use of independent raters who rated the same eight clinical vignettes as had been rated in the preliminary study. The raters in this study were all child psychologists, ranging in experience from one to twelve years. The raters received fifteen hours of training from one of the authors of the scale; the training consisted of a thorough review of the rating manual as well as group discussion related to the various definitions within the manual. The consensual ratings from the preliminary reliability study were used as criterion for the validity of the raters' judgments. On the first level of analysis, segmentation, the raters achieved a good to excellent level of interrater reliability (weighted kappa=0.72). On the second level of analysis, dimensional analysis, the raters achieved acceptable to excellent interrater agreement on the 25 ordinal subscales of the CPTI (ICC scores ranged from 0.52 to 0.89). Two subscales fell below acceptable levels of interrater reliability. As an additional check on validity, each raters' judgments were compared with the consensus ratings that resulted from the preliminary reliability study. According to the authors (Kernberg, Chazan, & Normandin, 1998), "Results indicate that, overall, satisfactory to excellent agreement with the standard was obtained by all three judges." The authors (Kernberg, Chazan, & Normandin 1998) concluded that the results of this preliminary reliability study demonstrate the effectiveness of the CPTI as a measure of a child's activity in psychotherapy. They further explained that the CPTI shows promise as a useful tool for researchers and clinicians who receive a minimum of fifteen hours of intensive training (Kernberg, Chazan, & Normandin, 1998).

It seems that the CPTI has several limitations that hinder its use as a measure of the play therapy process. First, the CPTI is strongly grounded in psychodynamic theory. While this is not an intrinsic limitation, this way of conceptualizing children's play therapy behavior is difficult to use by researchers who do not share the same assumptions about the possible meanings embedded in children's play behaviors. For instance, it is difficult for a non-psychodynamic play therapist to rate a child's use of defensive strategies (reaction formation, projective identification, etc. (Chazan, 2003)) as these concepts are strongly rooted in psychodynamic theory. In a recent nationwide survey of play therapists affiliated with the International Association for Play Therapy, the vast majority of play therapists who had received university-based training in play therapy reported that their training was based in either child-centered (56.0%) or cognitive-behavioral (42.0%) approaches (Ryan, Gomory, & Lacasse, 2002). Clearly, play therapists that adhere to the psychodynamic theoretical orientation are in the minority among this group of professionals. This information supports the conclusion that the CPTI lacks usability for play therapists and researchers who do not ascribe to the psychodynamic approach. Second, use of the CPTI appears to be quite difficult to master; fifteen hours of intensive training seems to exceed the resources of most clinicians as well as researchers. Third, application of the CPTI seems to require extensive time; each video must be viewed a minimum of two times, and a narrative description of play segments must be written. This lengthy process seems to preclude the use of the CPTI in play therapy process research, which requires raters to rate multiple sessions, ideally with multiple children. The authors' use of only eight play therapy vignettes (not full sessions) in their reliability study underscores the labor-intensive process required in using the CPTI (Kernberg, Chazan, & Normandin, 1998). The CPTI seems to be a well-researched and ambitiously comprehensive instrument; however, the scope of the

instrument seems to limit its usability in research settings that have limited resources. In conclusion, use of the CPTI seems to require an excessive investment of resources for most researchers, and the theoretical assumptions underpinning the CPTI are not compatible with the theoretical training of a majority of play therapy clinicians and researchers.

Summary

In summary, play therapy is widely regarded as a developmentally appropriate treatment modality for children with a wide range of clinical issues. There appears to be strong agreement within the mental health community regarding the negative effects of trauma on young children, however, strong divisions continue to exist among play therapists regarding the most effective approach to use with children who have a history of trauma. Several authors posit that children with a history of trauma exhibit characteristic play behaviors, or posttraumatic play, that may be considered both a manifestation of a child's traumatic stress reaction, and a possible indicator of a trauma history (Terr, 1991; see also Eth, 2000). Few scholars have broached this subject from a scientific point of view, and little knowledge has been generated regarding the play therapy behaviors of children with a history of trauma. Current measurement instruments designed to assess the impact of trauma on young children rely too heavily on clinical interviews or self-report measures, both of which require the child to respond to abstract, verbal questions; this task seems to exceed the cognitive-developmental capacities of young children (Piaget, 1952). Current measurement instruments designed to assess the play behaviors of children in play therapy do not adequately address the specific play behaviors that are believed to be evident in the play of traumatized children (Terr, 1983; see also Eth, 2001; James, 1994), or if this is addressed, the application of the instrument from one setting to another proves difficult due to differences in clinicians' theoretical conceptualizations of children. According to McClean-

Russell (1994), “Although most child clinicians and theoreticians support the use of play as a diagnostic tool to assess children’s response to trauma, there is little empirical literature defining the specific play behaviors that correlate with traumatic stress.” It seems clear that an observation-based rating scale is needed that addresses the current concept of ‘posttraumatic play’ from a perspective that is applicable to a broad range of researchers and clinicians.

CHAPTER 2

METHODS AND PROCEDURES

The purpose of this study is the development of an observation-based assessment that is an accurate measure of the play behaviors of children as they engage in play therapy; in particular, I attempted to design an instrument that accurately discriminates between children with a history of interpersonal trauma and children with no known history of trauma, as they engage in play therapy. I expect that this measure will produce results that will allow future researchers to explore the characteristic patterns of play behaviors of children as they engage in play therapy. In addition, I expect this measure to provide clinicians a developmentally responsive means of measuring posttraumatic responses in children based on direct observations of play behaviors. This measure should provide clinicians with an increased understanding of the needs of traumatized children that will enhance the clinical treatment of this vulnerable population.

This chapter addresses the research questions guiding the study, definition of terms, the methods used in the development of the Trauma Play Scale, the rationale for the use of a pilot study to examine the psychometric properties of the Trauma Play Scale, the methods used in the implementation of the pilot study, and a description of the statistical analyses used to examine the psychometric properties of the Trauma Play Scale.

Research Questions

This study was designed to answer the following questions:

1. What psychometric properties of the Trauma Play Scale become evident as the scale is applied to a group of children with a history of interpersonal trauma as well as a group of children with no known history of trauma as they engage in play therapy? In particular, how reliable is the Trauma Play Scale across and within a group of objective raters?
2. Does the Trauma Play Scale display construct validity? In particular, does the Trauma Play Scale accurately discriminate between children with a history of interpersonal trauma and children with no known history of trauma as they engage in play therapy?

Definition of Terms

Discriminant Validity was defined as "...the extent to which scores on a measure are not related to conceptually unrelated measures" (Cozby, 2004). Thus, discriminant validity of the Trauma Play Scale is assessed through an examination of whether or not participants' Trauma Play Scale scores differ significantly in the predicted fashion, based on referring clinicians' diagnostic judgments of child participants. That is, if children who were previously grouped as traumatized scored higher on the Trauma Play Scale than children who were previously grouped as non-traumatized, this was to be considered evidence of the discriminant validity of the Trauma Play Scale.

Face Validity was defined as "...a judgment of whether, given the theoretical definition of the variable, the content of the measure appears to actually measure the variable" (Cozby, 2004, p.

90). Face validity of the Trauma Play Scale was assessed through evaluation by a panel of experts in the field of play therapy.

Interpersonal Trauma is a specific kind of trauma that involves interpersonal loss such as the loss of trust in a significant caretaker through abandonment or abusive behavior. For the purpose of this study, interpersonal trauma was defined as the parents' or caretakers' reports of potentially traumatic events in the child's past that involve some degree of interpersonal loss such as loss of trust in a significant caretaker through abandonment or abusive behavior (Dayton, 2000).

Inter-Rater Reliability was defined as the degree to which objective raters' "...ratings reflect the actual behavior and not idiosyncrasies of the observer" (Heppner, Kivilighan, & Wampold, 1999). Inter-rater reliability is a measure of the degree of consistency achieved among raters.

Intra-Rater Reliability was defined as the degree to which each objective raters' ratings are consistent with her own previous ratings (Hill, 1991).

Known-Group Validity was 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 significant differences in mean scores across independent samples" (Netemeyer, Bearden, & Sharma, 2003, p. 80).

Play Therapy was defined as 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).

Introduction to the Trauma Play Scale

The current version of the Trauma Play Scale is an observation-based assessment instrument that is designed to measure play behaviors related to the construct of posttraumatic play. The Trauma Play Scale is composed of five subscales that were selected as items that accurately represent the most salient features of the construct of posttraumatic play. Each subscale of the Trauma Play Scale is composed of a five-point Likert-like scale that includes behavioral anchors for each scale point (Kingston & Bass, 1981). The Trauma Play Scale is intended for use by trained raters who have prior training and experience related to play therapy. The Trauma Play Scale is designed to allow raters to rate videotaped play therapy sessions in five-minute intervals; the instrument is designed to be used with a series of videotaped play therapy sessions that occur in chronological sequence. I worked closely with a faculty mentor throughout the process of developing the current version of the Trauma Play Scale; we employed standard instrument development methodology as outlined by Hill (1991) and Netemeyer, Bearden, and Sharma (2001). The following sections detail the development of the Trauma Play Scale.

Rationale for Design Elements of the Trauma Play Scale

The following discussion addresses my rationale for the use of observation-based procedures, behavioral anchors, play-based assessment methodology, and process related variables in the construction of the current version of the Trauma Play Scale.

Rationale for Observational Design of Trauma Play Scale

Observation-based assessments have several advantages over assessments that rely on self-reports of children or parents' reports of children's behaviors. First, as noted above, young children typically lack the verbal and cognitive abilities required to accurately respond to self-

report measures; this is particularly true for children who have not yet approached the formal operations level of cognitive development which typically includes children seven years of age or younger (Piaget, 1952, as cited in Fitch, 1995, p. 49). In accordance with this view, Fitch (1995) reported that, “observation is the most common method employed in studying children” (p.14). Second, assessment procedures that are built upon behavioral observations are widely believed to be more objective and accurate than self-reports, including parents’ reports of children’s behaviors (Cone & Foster, 1993). Indeed, Cone and Foster (1993) explained that researchers using self-report measures often assume that there is a true correspondence between individuals’ descriptions of themselves and their actual behaviors. They related that, “...unfortunately, research attempting to show correspondence between reports of what people say they do and what they actually do indicates that this assumption is often false” (Cone & Foster, 1993, p. 151). Finally, observation-based assessments are generally considered more accurate and reliable than assessments that rely on the subjective judgments of clinicians (Gitlin-Weiner, Sandgrund, & Schaefer, 2000). This conclusion is based in part on the fact that observation-based assessments typically involve the use of standardized measures of behavior; especially, operationally defined behavioral categories (Gitlin-Weiner, Sandgrund, & Schaefer, 2000).

Rationale for the Behaviorally Anchored Design of the Trauma Play Scale

My faculty mentor and I considered several different design options for the Trauma Play Scale; finally, we chose to use a design that employs behavioral anchors. Behavioral anchors are behavioral descriptors that are linked to specific scale points in a rating scale (Kingston & Bass, 1981). For example, a five-point Likert-like rating scale that uses behavioral anchors gives five different behavioral descriptors, one for each point on the scale. We agreed that the high level of

specificity of the behavioral anchors would likely improve raters' understanding of how to rate videotaped play therapy sessions using the Trauma Play Scale. I reasoned that precise, behavioral descriptors would enhance the general usability of the Trauma Play Scale.

Rationale for Play-Based Design of Trauma Play Scale

The current version of the Trauma Play Scale was developed as a play-based measure for a number of reasons. First, the construct of interest, posttraumatic play, is inherently manifested within children's play behaviors (Terr, 1991; James, 1994). That is, posttraumatic play could not be directly assessed without looking at children's play behaviors. Second, play-based assessments are responsive to the developmental needs of young children (Gitlin-Weiner, Sandgrund, & Schaefer, 2000; Lifter, 2000). As noted above, young children lack the cognitive development and verbal abilities to accurately describe their internal experiences (Piaget, 1952, as cited in Fitch, 1995, p. 49). Researchers interested in the experiences of young children have therefore turned to the study of children's play behaviors (Gitlin-Weiner, Sandgrund, & Schaefer, 2000). According to recent authors, play is the most complete form of expression for children and, "the information that play observations yield cannot be equaled in its richness or depth" (Gitlin-Weiner, Sandgrund, & Schaefer, 2000). Finally, researchers interested in the process of therapy have a long history of examining non-verbal, or ancillary, behaviors of both therapists and clients (Heppner, Kivilighan, & Wampold, 1999, p. 418). Ancillary behaviors are considered to be outside of the conscious control of clients' awareness. According to Heppner, Kivilighan, and Wampold (1999), "...this lack of conscious control suggests that nonverbal behaviors may provide a more sensitive indicator of client or counselor emotional state than self-report measures" (p.418). Based on this assumption, one may conclude that children's play behaviors provide a direct means of understanding children's inner experiences.

Rationale for Process Oriented Design of Trauma Play Scale

The current version of the Trauma Play Scale was developed as a measure of process-related variables for a number of reasons. First, several authors have asserted that children's play behaviors change in predictable ways over the course of play therapy (Hendricks, 1971; Landreth, 1991; Moustakas, 1955; Withee, 1975). According to Landreth (1991), the child in play therapy experiences the expansion of the possibilities of self in direct proportion to the degree of acceptance that is inwardly experienced by the therapist and outwardly expressed to the child. Landreth (1991) stated that, "this experiencing and expanding of the possibilities of self are often manifested in identifiable stages of change in the developing play therapy process" (p. 17). The apparent fact that children's play behaviors change over time supports the need for a measurement instrument that is designed to allow for multiple observations during the course of play therapy treatment. Mapping the course of patterns of change in play therapy will certainly add to the understanding of this complex process. Second, a process-based design seems necessary for the assessment of the phenomenon of posttraumatic play. Posttraumatic play is conjectured to be repetitive (Terr, 1983; see also Eth 2001); it therefore cannot be directly measured without the use of multiple observations. In an initial study of posttraumatic play in school-age children, McClean-Russell (1994) stressed the need for an assessment that encompasses multiple observations of the play of traumatized children. In a similar vein, it seems intuitively clear that posttraumatic play is more likely to occur within an established therapeutic relationship, rather than in a one-time play assessment. Children who have experienced a safe and trusting relationship with a therapist seem more likely to touch on painful material, such as traumatic experiences. Several authors have stressed the importance of

establishing a safe and trusting relationship in order to facilitate the healing process for traumatized children (Eth, 2001; Gil, 1991; James, 1994; Schaefer, 1994).

In summary, careful attention was given to various design elements of the current version of the Trauma Play Scale. We sought to create a measurement instrument that is objective, responsive to the developmental needs of young children, and sensitive to the unique characteristics of the phenomenon of interest, that is, posttraumatic play.

Development of the Trauma Play Scale

The current version of the Trauma Play Scale was developed following the procedures outlined in Hill's (1991) article on developing measures for process research.

Introduction to Researcher, Faculty Mentor, and Research Milieu

My faculty mentor and I share a strong interest in enhancing the quality of mental health services provided to young children. This shared interest resulted in a highly collaborative research effort that is evident in all phases of the current study. I anticipate that the current study will lay the foundation for future research related to the process of play therapy for traumatized children. I am a doctoral candidate in the Counseling program at the University of North Texas; I have six years of post-masters' degree clinical experience related to play therapy, holds the Registered Play Therapist-Supervisor designation, and am a Licensed Professional Counselor in the state of Texas. My faculty mentor is a doctoral degreed Assistant Professor in the Counseling program at the University of North Texas. She has fifteen years clinical and academic experience related to play therapy, holds the Registered Play Therapist-Supervisor designation, and is a Licensed Professional Counselor-Supervisor in the state of Texas. I ascribe to the person centered theoretical orientation and my faculty mentor ascribes to a humanistic approach to therapy. Our theoretical views and assumptions became evident through the process

of deliberation that is a necessary part of instrument development. I have attempted to make such theory-based assumptions explicit whenever possible throughout the process of developing the current version of the Trauma Play Scale. The current study was conducted under the auspices of the University of North Texas' Counseling program, which is also heavily influenced by the theory and practice of non-directive, humanistic principles. In particular, Child-Centered play therapy, as espoused by Landreth (1982/1991/2002), is an especially strong force in the Counseling program as a whole, and in the practice of play therapy in the two centers in which this research was conducted. This particular research milieu has had a strong influence on the production of the Trauma Play Scale.

Method of Instrument Development

The current version of the Trauma Play Scale was developed through the use of standard instrument development methodology (Hill, 1991; Netemeyer, Bearden, & Sharma, 2001). This process included the following steps: a) literature review, b) review of archival material, c) generation of pool of potential items, d) focus group meetings, e) revisions of instrument, f) development of operational definitions for each subscale, g) development of the Trauma Play Scale Rating Form, and e) development of the Trauma Play Scale User's Guide. These steps are outlined in the following section.

Literature Review Process

I conducted a thorough review of literature related to play therapy, with particular attention to the construct of posttraumatic play, as well as measurement instruments designed for use in play therapy research. I sought to determine whether any existing instruments adequately assess the impact of trauma on young children. After consultation with a faculty mentor and two additional senior faculty members with expertise in play therapy, I concluded that no existing

measurement instrument adequately assesses the play therapy behaviors of traumatized children. I subsequently reviewed literature related to trauma, play therapy, and the concept of posttraumatic play, with the goal of identifying theoretical constructs and empirical data related to the impact of trauma on young children. I then distilled information from this literature review into three broad categories: theory-based definitions of posttraumatic play, clinical descriptions of posttraumatic play, and empirical research related to play therapy with traumatized children. Information from this literature review was incorporated into the operational definitions that comprise the five subscales of the current version of the Trauma Play Scale.

Review of Archival Material

Based on Hill's (1991) recommendation, I conducted a review of archival materials relevant to the concept of posttraumatic play. In particular, I systematically viewed videotaped play therapy sessions of both traumatized and non-traumatized children. While viewing the videotapes, I took note of significant features of the children's play behaviors. In addition, I rated several segments from videotaped play therapy sessions using various versions of the Trauma Play Scale. Approximately twenty-five hours of archival materials were viewed and rated during this process. The goal of this review was to ensure that the rating scale captured aspects of children's play behavior that are most salient to the concept of 'posttraumatic play' as described by various authors who were identified as experts on this topic through the review of relevant literature (Terr, 1983; see also Eth 2001; James, 1989). I used information from this review of archival material to further clarify and refine the subscales that comprise the current version of the Trauma Play Scale.

Generation of Pool of Potential Items

I worked closely with a faculty mentor as we compiled a pool of items for potential inclusion in the Trauma Play Scale. This list was composed of several items culled from existing play therapy measurement instruments (Faust & Burns, 1991; Howe & Silvern, 1981; Kernberg, Chazan, & Normandin, 1998; Oe, 1989; Russ, Niec, & Kaugers, 2000) as well as items generated based upon the previously mentioned literature review and review of archival materials. Each item represented a particular behavior or form of affective expression that seemed to be related to the concept of posttraumatic play. Additional potential items were generated through discussions between myself, my faculty mentor, two senior faculty members with extensive clinical and academic experience in play therapy, and a focus group composed of doctoral students with advanced training in play therapy. Approximately 80 separate potential items were considered for inclusion in the Trauma Play Scale; these items were questions or observations related to various play behaviors that had been identified through the literature review and review of archival material.

Focus Group Meetings

My faculty mentor and I conducted a series of presentations to a focus group selected for the purpose of revising and refining the Trauma Play Scale. This method of scale development is recommended by various authors (Hill, 1991; Netemeyer, Bearden, & Sharma, 2003). Several versions of the Trauma Play Scale were created and presented to a focus group composed of six doctoral students with advanced training and experience in play therapy. These doctoral students had each completed, at minimum, one graduate level Introduction to Play Therapy course as well as a yearlong internship that included supervised play therapy experience. Half of the students who served as focus group members were currently enrolled in the Advanced Play Therapy

course, and half were serving as supervisors for this course. We made six presentations to this focus group. The presentations included a review of the concept of posttraumatic play (as described by Terr, 1982 and James, 1994) as well as a review of the specific items, or subscales, which had been chosen for inclusion in the various versions of the rating scale. In addition, we presented several segments of videotaped play therapy sessions for the students to rate using the rating scale. The focus group members asked questions related to the potential subscales and engaged in dialogue about how to best capture the play behaviors that the researcher and faculty mentor had identified as most salient to the concept of posttraumatic play. In addition to live discussion, the focus group members reviewed each version of the instrument and rated their own videotaped play therapy sessions using the various versions. They then provided verbal and written feedback related to the general usability of the scale as a whole. Focus group members' feedback was then incorporated into later versions of the Trauma Play Scale, which were subsequently presented anew to the focus group. My faculty mentor and I viewed this reciprocal process as the most effective way to clarify the abstract constructs related to posttraumatic play. This cycle of training, feedback, and revision was repeated six times over the course of eight months. This repeated process of refinement and clarification resulted in an instrument that had fewer items, was considered useable by focus group members, included more clearly defined terms and examples of specific play behaviors, and had a focus on the degree or intensity of behaviors rather than the frequency of behaviors. These repeated trials with focus group members led to clarifications of items that served as the basis for forming the five subscales included in the current version of the Trauma Play Scale.

Selection of Subscale Items

My faculty mentor and I engaged in a rigorous process of deliberation in order to clarify specific items, to ensure that the items were conceptually mutually exclusive (Hill, 1991), and that the scale as a whole measured the targeted constructs in a manner that was broad enough to have clinical meaning, yet specific enough to have clinical utility. We then evaluated the potential subscales for inclusion in the Trauma Play Scale; each item was evaluated based on whether it seemed relevant to the concept of posttraumatic play, whether the item seemed useable when presented to potential raters (focus group members), and whether the phenomenon (behavior or affective expression) was readily observable. We agreed that due to the complexity of the behaviors being rated, the rating scale should be composed of a limited number of items. Five items were selected to form the five subscales of the current version of the Trauma Play Scale; these subscales are: a) Intense Play, b) Repetitive Play, c) Play Disruptions, d) Avoidant Play Behavior, and e) Expression of Negative Affect. These five items were selected as the items that seemed to best represent the most salient features of the concept of posttraumatic play.

Development of Operational Definitions

Operational definitions for each subscale selected for inclusion in the Trauma Play Scale were developed through a collaborative process between my faculty mentor and me. Operational definitions are concrete and specific definitions of abstract constructs that allow the researcher to, "...move from general ideas and constructs to more specific and measurable events" (Heppner, Kivilighan, & Wampold, 1999, p. 39). We developed the operational definitions for each subscale through a process of deliberation and analysis. Specifically, we carefully examined each item and discussed how the item could be described in concrete and specific terms. Multiple revisions of each subscale were reviewed and analyzed before we came to

consensus on the specific items that should comprise the Trauma Play Scale. Operational definitions for each subscale of the current version of the Trauma Play Scale are included in the Trauma Play Scale User's Guide and are listed in abbreviated form on the Trauma Play Scale Rating Form (as a convenient reference for raters).

Development of the Trauma Play Scale Rating Form

The Trauma Play Scale rating form (Appendix B) was devised as a brief form on which raters may record their ratings as they apply the Trauma Play Scale to a series of videotaped play therapy sessions. We sought to make the rating form as user-friendly as possible; therefore, the rating form includes an abbreviated operational definition of each construct measured by the five subscales of the Trauma Play Scale. Behavioral anchors for each scale-point were listed on the rating scale. This approach to scale development is supported by several authors (DeVellis, 2003; Kingston & Bass, 1981; Netemeyer, Bearden, & Sharma, 2003).

Development of the Trauma Play Scale User's Guide

The user's guide (Appendix C) is a brief manual that accompanies the rating scale. The user's guide includes detailed directions for completing the rating scale. The directions for completing the rating scale were based primarily on my review of existing measurement instruments. Oe's (1989) directions for completing the PBARS instrument served as the model for the directions for completing the Trauma Play Scale rating form. In addition, feedback from focus group sessions was incorporated into the user's guide in order to increase the usability of the scale. The user's guide includes a complete operational definition for each subscale of the Trauma Play Scale. My faculty mentor and I agreed that concrete examples of how to apply the Trauma Play Scale to specific play behaviors would enhance raters' understanding of how to apply the Trauma Play Scale to actual play therapy sessions. Therefore, I attempted to provide

concrete examples of play behaviors for each subscale of the Trauma Play Scale. In addition, we agreed that raters would benefit from certain clarifications about how to apply the Trauma Play Scale in unusual circumstances. We continually added examples and refined and clarified items in the user's guide throughout the implementation of the pilot study. Raters were kept abreast of such changes through both verbal and written feedback. The user's guide also includes directions for scoring the Trauma Play Scale and describes the various types of numerical output that may be generated from the application of the rating scale. Finally, the user's guide includes the Toy and Play Theme Checklist. We agreed that in order to accurately assess repetitive play behaviors or themes over time, the raters would benefit from recording basic play behaviors and themes observed in each session (rather than relying on memory alone). Therefore, the Toy and Play Theme Checklist was developed as a reference tool for raters to use as they rate a series of videotaped play therapy sessions. The checklist provides a way for raters to record which toys the child played with in each segment, which behavioral items on the rating scale were related to particular toys, and which major themes emerged within the segment. The primary purpose of the checklist is to provide the raters with a way to record specific play behaviors that occur in one segment so that the raters can refer back to that segment in order to determine whether repetitive play occurs in subsequent segments or sessions.

Rationale for Inclusion of Subscales Comprising the Trauma Play Scale

Each of the subscales chosen for inclusion in the current version of the Trauma Play Scale were part of a larger pool of items generated through my review of relevant literature, review of archival material, and consultation with senior faculty members with expertise in play therapy. The rationales for inclusion of each subscale are explored below.

Intensity of Play

The Intensity of Play subscale was included in the current version of the Trauma Play Scale for several reasons. First, the literature related to the concept of post-traumatic play indicates that intense play is a hallmark of the play of traumatized children. According to several experts in the field of play therapy (Terr, 1983; see also James, 1989; Nader & Pynoos, 1991), posttraumatic play is intense and driven. Terr (1983) explained that posttraumatic play includes an element of compulsivity, which seems to indicate a sense of urgency or intensity on the part of the child. It is this intense, compulsive, and driven character of play that the intensity of play subscale is designed to capture. Second, my own clinical observations support the notion that children who present for therapy with trauma-related issues often display play that is intense and driven. Third, intense play, as described by Terr (1983), was observed during a review of archived videotapes of the play therapy sessions of traumatized children. In my view, these children displayed play that was quite intense, including, at the extreme, the driven and joyless quality that is described in the literature related to posttraumatic play (Terr, 1990; see also James, 1986; Schaefer, 1994).

Repetitive Play

A subscale assessing the repetitive nature of posttraumatic play was included in the current version of the Trauma Play Scale for a number of reasons. First, several authors have asserted that children with a history of trauma engage in play that is highly repetitive (Terr, 1983; see also Eth, 2001; James, 1994; Schaefer, 1994). Terr (1983) asserted, "...the monotonous ritualization of posttraumatic play requires that...the play must be played the same way each time it is enacted." Terr (1983) argued that therapists are rarely able to directly observe this type of repetitive because the "...therapist's presence and the therapeutic setting

‘spoil’ the context of the play.” That is, children may avoid playing out repetitive play sequences in a therapeutic setting due to the child’s need to control the environment within which this type of play emerges. However, Terr (1990) later asserted that, “If the child has experienced a trauma, this experience will eventually play itself out in the therapist’s office” (p. 299). Schaefer (1994) related repetitive play to Freud’s (1920) concept of abreaction. Abreaction is a process wherein the individual masters traumatic memories through bringing the memories into conscious awareness and reliving the memories with appropriate affect (Schaefer, 1994). Schaefer (1994) explained that repetitive, posttraumatic play may serve an abreactive function in young children. Second, the repetitive aspect of posttraumatic play has received widespread recognition among mental health professionals. This aspect of play has been included as one of the diagnostic criteria for PTSD in children (Eth, 2001); repetitive play in children may be viewed as a corollary to the intrusive reexperiencing (i.e., flashbacks, nightmares, and intrusive thoughts) that occurs in adults suffering from PTSD (Eth, 2001; Schaefer, 1994). This aspect of the play of traumatized children has gained tremendous importance among mental health profession, despite the relative lack of empirical data supporting the existence of repetitive play in traumatized children (McClellan-Russell, 1994). It seems clear that this element of the play of traumatized children warrants investigation. To this end, a measure of repetitive play was included within the Trauma Play Scale. Third, I have observed repetitive play behaviors in traumatized children in both my role as researcher and therapist. The review of archived videotapes of traumatized children in play therapy was especially compelling, and contributed to our decision to include this dimension in the Trauma Play Scale. In particular, during this review process, we observed several children who had been previously identified as having a history of trauma engage in repetitive play that seemed to have

the driven quality described by experts in the field of traumatology (Gil, 1991; James, 1994; Schaefer, 1994; Terr, 1982).

Play Disruption

The current version of the Trauma Play Scale includes a measure of play disruptions based on the following reasons. First, according to Erickson (1963), a play disruption is a "...sudden and complete or diffused and slowly spreading inability to play" (p. 224) that often occurs when, "...an emotion becomes so intense that it defeats playfulness" (p. 224) Play disruptions, therefore, may be considered an indicator of the degree of intensity of emotions expressed through play. James (1994) explained that children often exhibit protective dissociation in response to past traumatic experiences. She explained that, "Dissociation protects trauma survivors from overwhelming emotions, thoughts, and sensations, and allows them to function in their environments" (James, 1994, p. 13). Play disruptions may be understood as a form of dissociation occurring in children. Schaefer (1994) also addressed the phenomenon of play disruptions in relation to posttraumatic play; he explained that, "...sometimes the child's level of anxiety becomes so unbearable that he or she will abruptly stop playing" (p. 305). Schaefer (1994) argued that play disruptions may be emotionally damaging to children in that the intensity of the child's emotional expressions may reinforce the child's belief that it is dangerous to express buried feelings. He advocated for therapists to limit the amount of abreactive play that occurs in session in order to avoid the occurrence of play disruptions (Schaefer, 1994). An alternative view, which is more compatible with non-directive theories of play therapy, is that play disruptions serve as the child's natural protection against engaging in prolonged, intense play. Stein (1995) described a more severe form of play disruption in an article describing the treatment of a severely traumatized young boy. She postulated that this boy's history of severe

trauma precipitated substantial delays in his cognitive and emotional development, and that part of this delay included the lack of development of symbolic play skills (Stein, 1995). Stein (1995) viewed this child's pervasive developmental delays as a severe form of play disruption. Clearly, the concept of play disruption has been linked to traumatic events in the lives of children by several authors (James, 1994; Schaefer, 1994; Stein, 1995). As noted above, my faculty mentor and I both ascribe to theoretical views that are based upon non-directive, humanistic principles. As a Child-Centered play therapist, I view the child as having the capacity to direct the therapeutic experience in the manner that is most healing to the child (Axline, 1969; Landreth, 1982/1991/2002). It is my theoretical assumption that when the child is given the opportunity to engage in self-directed play, play disruptions may occur, and these disruptions may be viewed as the child's natural protective response to overwhelming anxiety. My faculty mentor described the phenomenon of play disruption as a child's "...innate, internal mechanism for coping with overwhelming experiences, feelings, or thoughts in play therapy" (S. Bratton, personal communication, January, 28, 2004). In addition, due to the strong influence of Child-Centered play therapy theory and technique in the research milieu, all of the therapists who contributed videotaped play therapy sessions for use in this study allowed the child to engage in self-directed play. Therefore, children's play disruptions were not intentionally interrupted by any therapist who participated in this study. I view the child's experience of a play disruption as an indicator of emotional distress (Erikson, 1963), and this view is reflected in the Play Disruption item included in the current version of the Trauma Play Scale. For these reasons, I included a measure of play disruptions on the Trauma Play Scale as a type of play behavior related to the concept of posttraumatic play.

Avoidant Play Behavior

A measure of the child's relational stance to the therapist seemed important in assessing the play therapy behaviors of traumatized children. The Avoidant Play Behavior subscale was included in the current version of the Trauma Play Scale for the following reasons. First, the child's level of avoidance of the therapist seems to provide an indication of the child's general style of coping with interpersonal relationships. This seems especially true for children who have a history of interpersonal trauma. My faculty mentor and I share a dedication to the humanistic-relational perspective; that is, that the relationship is the central healing factor in effective play therapy (Axline, 1969; Landreth, 1982/1991/2002; Moustakas, 1959). This theoretical stance is evident in the Avoidant Play Behavior subscale of the Trauma Play Scale; that is, a direct measure of the child's relational stance to the therapist is an indication of my belief in the importance of the relationship between the child and the play therapist. James (1994) introduced the concept of attachment trauma; that is, trauma that stems from the loss of an attachment figure or the abusive or neglectful behavior of attachment figures. She explained that in response to experiences of abuse or neglect, children often develop adaptive behaviors that later become problematic. For instance, avoidance of intimacy may have protected the child in an abusive environment, but left unaltered, this pattern of relating to others may form a significant barrier to forming future attachment relationships (James, 1994). James (1994) explained that, "intimacy is commonly avoided by adult and child trauma survivors because the inherent emotional closeness leads to feelings of vulnerability and feelings of loss of control, and both of these feelings are intolerable to victims of violent abuse and other trauma. She stated, "Intimacy represents a threat, not safety" (p. 15). James (1994) argued that children may exhibit clingy behavior, hyperactivity, avoidance of eye contact, withdrawal, or "disgusting personal

habits” in order to avoid intimacy. She further explained that traumatized children often lack the ability to trust adults, they may withdraw from physical or emotional closeness, and they may present as guarded, controlling, hyperactive, or pseudomature. According to Mills and Allan (1992), “Children who are maltreated, insecurely attached, or come from chaotic homes are significantly more likely to show behavior patterns of aggression and withdrawal both in preschool and into the early school years.” Mills and Allan (1992) further asserted that maltreated children may engage in a process wherein “...the child’s interaction with the therapist slowly changes from avoidant and nontrusting to a trusting, reciprocal interaction.” It is anticipated that the Trauma Play Scale will capture children’s movement from an avoidant relational stance towards a more adaptive way of relating to the therapist, specifically, a more trusting, connected manner of relating to the therapist. Second, the child’s level of avoidant play behavior may be considered an indicator of the child’s desire to maintain the secrecy of his or her posttraumatic play. According to Terr (1983), children often hide their posttraumatic play in an effort to keep the play private. I reasoned that children who wish to maintain a level of secrecy in their play would tend to play in a more avoidant manner than children who are more open to sharing their play experiences. This claim was supported by my clinical observation that as children engage in intense, repetitive play, they often seem to avoid contact with the therapist. In addition, my faculty mentor noted that in her clinical experience, traumatized children often seem to have an internal compulsion to play out specific themes or play sequences, and that these children tend to become so absorbed in their play that the play takes on a detached quality (Bratton, personal communication, October, 2003).

Negative Affect

A measure of negative affect was included in the scale for three primary reasons. First, several authors have noted that children engaged in posttraumatic play often lack joy or other expressions of positive affect (Terr, 1990; see also James, 1994; Pynoos, 2001; Schaefer, 1994). Posttraumatic play, according to Terr's (1983) definition, has a compulsive character and fails to relieve the child's anxiety. Although Terr (1983) noted that some children might describe their posttraumatic play as 'fun,' she recognized that the play was typically driven by feelings of anxiety. I reasoned that negative affect, especially anxiety, might accompany posttraumatic play that occurs within play therapy sessions. According to Schaefer (1994), traumatized children often engage in reenactments of trauma material; these reenactments may take the form of play, but they have a literal quality and lack the joy and spontaneity that is typically associated with play. The content of the play in a reenactment is an almost exact mirroring of the actual events as they occurred during the traumatic episode. Schaefer (1994) explained that while children may report that posttraumatic play is fun or entertaining, reenactments do *not* appear to be perceived as fun by the child. Second, it seems intuitively evident that individuals who are struggling to master traumatic psychic material tends to experience painful feelings, such as anxiety, sadness, anger, etc. Third, during review of archival material, I observed several play therapy sessions wherein traumatized children failed to express positive affect or expressed minimal positive affect. Thus, lack of joy or the presence of negative affect (particularly anxiety, constricted affect, and flat affect) during play seems quite relevant to the study of the play behaviors of traumatized children engaging in play therapy. Therefore, the Negative Affect subscale was included in the current version of the Trauma Play Scale.

*Rationale for Use of Pilot Study to Assess the
Psychometric Properties of the Trauma Play Scale*

Researchers who are interested in scale development often rely on pilot studies to obtain initial reliability and validity estimates on newly developed scales (Netemeyer, Bearden, & Sharma, 2003, p. 118). Although several validation studies are typically conducted in order to establish the construct validity of an assessment instrument, pilot studies may provide useful preliminary estimates of the reliability and validity of such a measure (Netemeyer, Bearden, & Sharma, 2003, p. 118). Therefore, I chose to conduct a pilot study in order to obtain preliminary estimates of the reliability and validity of the Trauma Play Scale. I decided to use a naturalistic (non-laboratory) setting for the pilot study because the Trauma Play Scale is designed for use in a naturalistic setting; it is anticipated that the Trauma Play Scale will shed light on the process of play therapy for children with a history of trauma as they are engaged in the actual process of play therapy.

Procedures for Implementation of Pilot Study

Overview of Pilot Study Design

The pilot study has four major components: a) data collection phase; b) rater training phase; c) rating period; and d) data analysis phase. Each of these components is described in detail in later sections. The following paragraph provides the reader with a general overview of the pilot study design.

During the data collection phase of the pilot study, I collected a series of videotaped play therapy sessions from twelve child-therapist dyads. Six of these children had been previously identified as traumatized, and six of these children had been previously identified as non-traumatized. I planned to compare these groups according to their scores on the Trauma Play

Scale (described above). During the rater-training phase of the pilot study, my faculty mentor and I trained five raters on how to rate videotaped play therapy sessions using the Trauma Play Scale. During the rating period, raters used the Trauma Play Scale to rate videotaped play therapy sessions independently. During the data analysis phase of the pilot study, I collected raters' ratings, entered all Trauma Play Scale scores into a database, and conducted statistical analyses in order to evaluate the psychometric properties of the Trauma Play Scale. This method is consistent with standard instrument development procedures, as outlined by several authors (Netemeyer, Bearden, & Sharma, 2002; DeVellis, 2003).

Research Setting for Pilot Study

Description of counseling clinics. Data for the pilot study were collected from two counseling clinics on the campus of the University of North Texas: the Child and Family Resource Clinic (CFRC) and the Counseling and Human Development Center (CHDC). These clinics are a part of the Counseling program and are used as training facilities for graduate students in Counseling. The CFRC houses four play therapy rooms and the CHDC houses three play therapy rooms. All play therapy rooms in both clinics are equipped with a range of toys that facilitate the expression of a broad array of emotions as recommended by Landreth (2000, pp. 138-142). In addition, all playrooms in both clinics are equipped with video cameras and microphones that allow therapists to make videotapes of play therapy sessions. The video cameras are concealed behind two-way mirrors and the microphones are mounted in an inconspicuous location within the playrooms. Therapists in both clinics routinely use this equipment to record play therapy sessions for the purposes of supervision. Both the CFRC and CHDC provide counseling services to adults and children from Denton, Texas and the

surrounding area. Although the clinics are located on the University of North Texas campus, the vast majority of child clients served at these clinics are not affiliated with the university.

Therapist characteristics. Nine therapists volunteered to provide videotapes of themselves conducting play therapy sessions with child clients for use in this study. These therapists were all either currently enrolled in, or recent graduates of, the counseling Ph.D. program at the University of North Texas. All nine therapists had previously received advanced graduate level training in the theory and techniques of Child-Centered play therapy. Each therapist identified herself as adhering to person-centered, Adlerian, or developmental, play therapy theory and techniques; each of these approaches is built upon humanistic principles and allows for the child to engage in self-directed play. All therapists who submitted videotapes for use in this study expressed their belief in the central role of the therapist-child relationship in the process of play therapy. The therapists ranged in age from 28 to 50, with the average age being 31.6. The therapists' professional experience ranged from two years to fifteen years, with an average length of experience of six years. Seven of the therapists are Caucasian and two of the therapists are Asian; both of the Asian therapists, one from South Korea and one from Japan, speak English as a second language.

Participant referral process. I worked in collaboration with the Clinical Directors and Clinical Supervisors of the CFRC and CHDC to obtain referrals of clients who met the inclusion criteria and were eligible for participation in the pilot study.

Inclusion Criteria for Participation in the Pilot Study

General inclusion criteria. All volunteer child participants must have met the following general inclusion criteria in order to participate in the pilot study: a) the family must have freely sought counseling services for their child; that is, the family must have contacted the counseling

center of their own will in order to seek play therapy services for their child or children; b) the child's parent or guardian must have agreed to sign an informed consent (see Appendix A) for child to participate in the present study, *or* the child's parent or guardian must have signed an informed consent specifically allowing their child's therapist to use videotaped play therapy sessions for educational and/or research purposes; c) the child client must have given assent to participate in the research project, *unless* assent has been waived by his or her parent or guardian due to the child's lack of understanding or emotional state (see Appendix A); d) the parent or guardian of the child client must be able to read and speak English; e) the child must have been considered a new client at the CFRC or CHDC. In order to be considered a new client, the child must not have 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); f) the child must have been between the ages of five and seven years old while receiving therapy services; g) the child must have 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 practicum in play therapy; h) the child must have completed ten consecutive play therapy sessions, within the range of session three to session thirteen, prior to the conclusion of the data collection phase of the pilot study; and i) the child's therapist must have determined the child's trauma history status (traumatized or non-traumatized), based on the therapist's clinical judgment and in consultation with the therapist's supervisor.

Trauma group inclusion criteria. In order to be included in the trauma history group, the child participant must have met all of the general inclusion criteria as well as specific trauma-related inclusion criteria as outlined in the Trauma Group Inclusion Criteria Checklist (Appendix

D). The Trauma Group Inclusion Criteria Checklist was completed for each child participant who had been referred as a potential member of the traumatized group. The Trauma Group Inclusion Criteria Checklist was completed based on a review of each child's written treatment file, as well as consultations with referring therapists, clinical supervisors, and a senior faculty member. My faculty mentor and I discussed each child participant and came to a consensus about whether the child was appropriately grouped as traumatized or non-traumatized. Two children who had been referred by therapists as traumatized were removed from the study due to the ambiguity of their reported trauma histories. One child who had been referred by a therapist as non-traumatized was removed from the study due to behavior problems that may have indicated a maladaptive response to a potentially traumatic event.

Participant Recruitment Process

Participant referrals were sought from the Clinical Supervisors at the CFRC and the CHDC. After potential participants were identified, I arranged to meet with the participants individually before gaining access to the videotaped and written records of the child's play therapy treatment. At this time I: a) explained the requirements and the purpose of the research study; b) explained how confidentiality will be maintained; c) answered any questions before the parent or guardian signed the informed consent form and before the child signed the assent form. After the Clinical Supervisors referred potential participants for inclusion in the pilot study, I contacted each therapist and asked the therapist to give his or her clinical judgment as to whether the child was best described as traumatized or non-traumatized, based on the therapist's interactions with the child and the child's family, and based on background information provided by the child's parent or caretaker and/or teachers. In soliciting referrals from therapists, I defined the traumatized child as "a child who has had an experience that most clinicians would

consider traumatic, such as physical or sexual abuse, neglect, or abandonment by a caregiver, and who seems to have behavioral indicators of emotional distress.” I defined the non-traumatized child as “a child who has no known history of traumatic events, or who has experienced a potentially traumatic event (such as parental divorce) yet who seems to be coping well.” Therapists who were uncertain about the child’s trauma history status were asked to consult with their supervisors in order to make a determination of the child’s trauma history status. The therapists then reported this determination to me, and this determination was used to categorize the child participants into two groups; that is, the trauma group and the non-trauma group.

Participant Characteristics

Of the twelve voluntary child participants who met the inclusion criteria for participation in the pilot study, six were categorized as traumatized, and six were categorized as non-traumatized, based on clinicians’ judgments. There were two females and four males in each of the groups. The children’s ages ranged from five to seven years; the trauma group had an average age of six years, three months, and the non-trauma group had an average age of six years exactly. The trauma group included one Asian American child and one African American child; all other children in the study were Caucasian. The children had each completed a minimum of eight consecutive sessions of play therapy prior to the conclusion of the data collection phase of this study. This series of sessions occurred between session number three and session number twelve for each child.

Only one child included in the pilot study met the inclusion criteria specifying that a traumatic event occurred during the course of therapy (Appendix D). This child had a previous history of probable trauma and was engaged in therapy when he experienced an additional

trauma. The play therapy sessions that occurred immediately after this additional traumatic event were available and were included in the study. I collected a series of eight consecutive sessions for this child, beginning with the second session that occurred immediately after the traumatic event occurred.

Instrumentation for Pilot Study

The development of the Trauma Play Scale is the primary focus of this investigation; therefore, all videotaped play therapy sessions included in the pilot study were rated using the Trauma Play Scale. Psychometric properties of the Trauma Play Scale were evaluated based on the results of this pilot study.

Data Collection Procedures for Pilot Study

After all participants were identified and agreed to participate, videotaped and written records of the child's play therapy sessions were collected in collaboration with the Clinical Directors and Clinical Supervisors of the CFRC and CHDC.

Data collection phase. I collected data, including videotaped play therapy sessions and data from clients' written treatment files, over a period of eight months. Some data collection occurred concurrently with the focus group meeting series (discussed above) and the rater training series (discussed below).

Collection of videotaped play therapy sessions. I attempted to collect eight consecutive videotaped play therapy sessions for each child. All videotapes used in the study were kept in a secure location in order to ensure clients' confidentiality. Collection of videotapes occurred through a number of methods; I talked with each volunteer therapist individually about the child clients who had been referred as potential participants in the pilot study. Some therapists had archived sessions of their work with these children. Each therapist was asked to mark the

videotapes with the child's first name, age, session number and date of session. The videotaped play therapy sessions were collected during the early phase of play therapy for each child; this was defined as sessions two through thirteen. I attempted to match participants' session numbers as closely as possible; however, it was not possible to obtain the exact same session numbers for each child who participated in the pilot study. Due to mechanical failure (audiovisual equipment not working properly) as well as unforeseen circumstances (illnesses, children's vacations, etc.) a complete series of eight consecutive sessions was not available for all participants in the pilot study. I obtained eight consecutive videotaped play therapy sessions per child. However, three of the twelve children have missing data in the series collected; each of these children is missing one session out of the series of eight consecutive sessions that I attempted to collect. In these cases, the next available session (after the missing session) was collected for use in the pilot study.

Collection of data from written treatment files. Additional data was culled from clients' written treatment files, including demographic data (age, gender, ethnicity, and family constellation) from the Child Background Information Form (Appendix F) completed by the child's parent or guardian. All written treatment records of the child's play therapy were kept in a locked filing cabinet within the CFRC or the CHDC. All data from the client's written treatment record, as well as data generated through the rating of videotapes using the Trauma Play Scale, were coded and entered into a database by the researcher.

Recruitment and Training of Objective Raters

Rater characteristics. My faculty mentor and I selected five counselors with advanced training and coursework in play therapy to serve as objective raters. Two of the raters are doctoral degreed play therapy practitioners; each of these raters completed the full series of

graduate level play therapy related coursework that is offered in the Counseling program at the University of North Texas. This series of coursework includes: Introduction to Play Therapy, Advanced Play Therapy, Group Play Therapy, Child and Adolescent Appraisal, and Filial Therapy. In addition, the two doctoral degreed raters each hold the Licensed Professional Counselor Credential issued by the Texas State Board of Examiners of Professional Counselors. The other three raters are currently pursuing the doctoral degree within the Counseling program at the University of North Texas. Each of these raters has also completed the entire series of graduate level coursework related to play therapy in the Counseling program. In addition, each of these raters holds the Licensed Professional Counselor-Intern credential issued by the Texas State Board of Examiners of Professional Counselors. The raters' professional experience conducting play therapy ranged from two years to seven years. I questioned the raters pertaining to their general theoretical orientation and found that each rater involved in the study ascribed to either person-centered or Adlerian theoretical beliefs related to their clinical work with children.

Preliminary raters' training series. My faculty mentor and I conducted a series of four training sessions, spanning a period of five months, prior to allowing the raters to rate videotaped pilot study data independently. All five volunteer raters attended the entire preliminary raters' training series. The goal of this series of trainings was to obtain a high level of continuity amongst raters; that is, a high level of inter-rater reliability, as they learned to apply the current version of the Trauma Play Scale to videotaped play therapy segments. Each rater received approximately twenty hours of training related to the application of the Trauma Play Scale. Prior to each training session, I requested that each rater review the rating scale and user's guide. In addition, prior to each training I instructed each rater to practice applying the rating scale to one of the rater's own videotaped play therapy sessions. Each training session began with a thorough

review of the Trauma Play Scale rating form (Appendix B) and the Trauma Play Scale User's Guide (Appendix C). My faculty mentor and I provided raters with examples of how to apply the Trauma Play Scale to videotaped play therapy segments. I had previously rated several videotaped play therapy segments and I provided raters with a rationale for each rating as needed. The children in the training segments were not participants in the pilot study. I instructed raters to rate each segment independently; that is, they were instructed to refrain from talking or gesturing during and immediately after the viewing process. After each rater had independently rated the training segment, I asked each rater to report her ratings; I recorded all ratings and noted the degree of agreement or discrepancy that was achieved. Raters who reported ratings that strongly diverged from others' opinions were asked to give a brief rationale for those ratings. I invited the raters to discuss and debate the ratings in question, with particular attention to the assumptions or opinions underlying the disagreements. My faculty mentor and I sought to build consensus among raters as to the most appropriate rating for each segment; in this way, raters became increasingly more consistent in their application of the Trauma Play Scale to videotaped play therapy segments. We provided clarifications of terms used in the user's guide, and made note of raters' questions and comments. The entire group engaged in discussion related to how to rate unusual play behaviors. Clarifications resulting from these discussions were immediately incorporated into the Trauma Play Scale user's guide; raters were given both verbal and written summaries of all changes that were implemented as a result of the training process. Raters provided both written and verbal feedback related to the usability and clarity of the rating scale and user's guide. We incorporated raters' feedback as they revised the instrument, and this revised instrument was used in subsequent training sessions. Feedback from the raters' training sessions contributed to greater refinement of the current version of the

Trauma Play Scale. This cycle of training, feedback, and revision was repeated four times over the course of five months.

Initial raters' training session. The term initial raters' training session refers to the training session in which raters achieved a high enough level of inter-rater reliability that they were allowed to begin rating tapes independently; this occurred in the fifth raters' training session. The initial raters' training session marked the beginning of the analysis of pilot study data. I followed the same training format as was followed in the preliminary raters' training series (described above). I presented nine five-minute segments of videotaped play therapy sessions and the raters rated these segments independently. These videotaped training segments were carefully selected to represent the spectrum of behaviors that are assessed by the Trauma Play Scale. I used three five-minute segments from three different children for a total of nine segments, or forty-five minutes of videotaped training material. Training segments were selected from one child who had been previously identified as traumatized, one child who had been previously identified as non-traumatized, and one child whose trauma history status was ambiguous. Both percentage agreement and correlational estimates of interrater reliability were calculated in order to determine whether or not the raters should be allowed to proceed rating pilot study data independently. Based on analysis of all data generated in the initial raters' training session, raters achieved 97% percentage agreement. The average reliability correlation coefficient was .86 (Pearson's r). According to Stemler (2004), these results indicate acceptable levels of interrater reliability. My primary goal was to explore the psychometric properties of the newly developed Trauma Play Scale; therefore, an in-depth analysis of interrater reliability, as well as intra-rater reliability is included in the results section of this document.

Validity of raters' judgments. My faculty mentor and I independently rated nine videotaped play therapy segments during the initial raters' training session. We used the mean of these ratings as a criterion score, which served as a basis for evaluating each rater's accuracy. The raters attained a mean correlation of .85 (Pearson's r) with the criterion ratings for all segments rated during the initial raters' training session. All correlations were converted to Fisher's z scores before being averaged (Hinkle, Wiersma, & Jurs, 1998). Raters' correlations with the criterion ranged from .82 (Pearson's r) to .88 (Pearson's r). These results indicate that the raters' ratings were quite consistent with my own ratings and those of my faculty mentor (Stemler, 2004).

Midpoint raters' training session. A midpoint raters' training session was conducted in order to re-assess interrater reliability. I followed the same training format as was followed in the preliminary raters' training series and the initial raters' training session (described above). Once again, I presented the raters with nine five-minute segments of videotaped play therapy sessions, which the raters rated independently. These training segments were selected in the same manner as described above; that is, training segments were selected from three different children, one traumatized, one non-traumatized, and one with an ambiguous trauma history status. These were not the same training segments that were used in the initial raters' training session. Both percentage agreement and correlational estimates of interrater reliability were calculated in order to determine the degree of interrater reliability that had been maintained over the preceding two-week rating period. Based on analysis of all data generated in the midpoint raters' training session, raters achieved 98 % percentage agreement. The average reliability correlation coefficient was .80 (Pearson's r). According to Stemler (2004), both the percentage agreement and correlational estimates of interrater reliability are in the acceptable range. A

detailed description of the psychometric properties of the Trauma Play Scale follows in later sections of this paper.

Procedures for Rating Videotaped Play Therapy Sessions

After reaching an acceptable level of inter-rater reliability, five raters rated the 96 videotaped play therapy sessions (twelve children, eight sessions each) using the Trauma Play Scale. Each series of videotaped play therapy sessions was rated in consecutive order; random ratings of videotapes was not feasible due to the fact that the Trauma Play Scale is designed to measure repetitive play behaviors, including play behaviors that recur over a series of independent sessions.

Assignment of videotapes to raters. Random assignment was considered as a method of disseminating the videotaped play therapy sessions to raters. However, because raters were to have no knowledge of the child participants' presenting issues, the research setting did not allow for random assignment to occur. In particular, all of the raters involved in the study had completed their graduate level practica within the clinics from which the videotaped sessions had been collected. The raters represented four distinct cohorts of doctoral students; therefore, the raters did not receive all of their training within the same clinics simultaneously, yet their training periods did overlap. Therapists in training at these clinics often engage in group supervision and observations of ongoing therapy. Therefore, some of the raters were familiar with some of the child participants in the pilot study. We sought to assign the videotapes to raters who had no prior knowledge of the children whose videotaped therapy sessions they rated.

Procedures for limiting rater bias. In order to limit potential bias during the rating process, raters were not informed of the research questions guiding the study. I was particularly aware of the potential for observer contamination. Gall, Borg, and Gall (1999), experts in

research design, explained "...observer contamination occurs when the observer's knowledge of certain data in a study influences the data that he or she records about other variables." For this reason, raters were not informed of the trauma history status of the children whose videotaped play therapy sessions they rated. However, raters were given limited demographic data for each of the children whose videotaped therapy sessions they rated. The following demographic information from the child's written treatment file was gathered from the Child Background Information Form (Appendix F): a) child's first name; b) child's gender; and c) child's age. Raters agreed to rate all videotaped play therapy sessions within a one-month period. Raters met two times during this period; the initial meeting was scheduled at the beginning of the month and the midpoint meeting was scheduled two weeks later.

Guidelines for rating process. Raters were instructed to rate the videotapes at an even pace over each of the two-week rating periods. That is, raters were instructed to space the rating sessions out evenly (ideally, four two-hour rating sessions) over the two-week period. I explained that it was important to maintain consistency in the rating process across all raters.

Assessment of intra-rater reliability. I instructed all raters to re-rate one videotape during the first two-week rating period for the purpose of assessing raters' intra-rater reliability. Intra-rater reliability is an estimate of how consistent a rater is with his or her own ratings across time. I instructed the raters to select the third session in the series of eight and to rate this entire session again. The first and second ratings from this session were compared in order to obtain an estimate of intra-rater reliability. Raters were instructed to bring this rating and all completed ratings to the mid-point raters' meeting so that the researcher could calculate the level of intra-rater reliability obtained by each rater. This method is consistent with Hill's (1991) recommendations for assessing intra-rater reliability during process research.

Suggested Analyses for Pilot Study Data

Treatment of data. Videotaped play therapy sessions were rated using the Trauma Play Scale; these ratings produced a set of numerical data that was later subjected to statistical analysis. I hand scored the Trauma Play Scale ratings for each child and each group; this scoring process generated eight Session Level Trauma Play Scale Scores for each child, one Series Level Trauma Play Scale Score for each child. Additional data from the client's written treatment files was coded for analysis; this data included the child's age, gender, and ethnicity. All data generated from videotaped play therapy sessions and clients' written treatment files was coded to ensure participants' confidentiality.

Assessment of interrater reliability. Inter-rater reliability estimates were obtained through analysis of raters' ratings in the training phase of the pilot study. Pearson's Product Moment correlation coefficients and percentage agreement estimates were employed as indices of inter-rater reliability (Huck, 2000, p. 94; Stemler, 2004).

Assessment of intra-rater reliability. Intra-rater reliability was evaluated using Pearson's Product Moment correlation coefficient estimates of intra-rater reliability. Intra-rater reliability was assessed at the midpoint raters' training session.

Assessment of face validity. Face validity of the current version of the Trauma Play Scale was examined, in part, through a survey of several experts in the field of play therapy. This feedback was reported in tabular form and experts' comments were qualitatively analyzed.

Assessment of discriminant validity. Discriminant validity of the Trauma Play Scale was examined through an analysis of known-group validity (Netemeyer, Bearden, & Sharma, 2003). If the two groups differed in the predicted fashion, with traumatized children scoring higher on the Trauma Play Scale than non-traumatized children, this was to be considered evidence of the

discriminant validity of the Trauma Play Scale. The discriminant validity of the current version of the Trauma Play Scale was evaluated through analysis of pilot study data. Particular attention was given to the aggregate scores; that is, the series level and session level Average Trauma Play Scale scores. The Trauma Play Scale was designed to detect differences in the play behaviors of traumatized and non-traumatized children based on a cluster of play behaviors that are believed to be indicative of posttraumatic reactions in young children. The aggregate scores are a measure of these behaviors, taken together, over time. Oneway analysis of variance and repeated measures analysis of variance statistics allowed the researcher to determine whether predicted differences between the two groups were borne out in the pilot study data. Repeated measures analysis of variance statistics were used to examine the effects of group membership on Trauma Play Scale scores over time. Post-hoc analyses allowed me to explore the impact of various domain scores on the global Trauma Play Scale scores. I employed effect size estimates as a measure of the magnitude of effects detected through the use of statistical significance tests. These analyses allowed me to compare the play therapy behaviors manifested over time among the two groups of interest; that is, traumatized and non-traumatized children.

CHAPTER 3

RESULTS AND DISCUSSION

The results of the current study are presented in the order in which the analyses were conducted. A brief overview of the study design is provided. Interrater and intra-rater reliability estimates are discussed in detail below. Face validity is then addressed through an examination of experts' feedback related to the current version of the Trauma Play Scale. Finally, discriminant validity is explored through the analysis of pilot study data. A detailed discussion of the results of the pilot study is presented as the results relate to the psychometric properties of the Trauma Play Scale. In addition, possible implications of the results are explored and recommendations for future research are provided.

Overview of Study Design

My faculty mentor and I developed the Trauma Play Scale as an observation-based assessment of the impact of trauma on the play therapy behaviors of young children. Our primary goals were to develop the rating scale as an accurate measure of the construct of posttraumatic play, as outlined by experts in the fields of play therapy and traumatology (Terr, 1991; see also Gil, 1991; James, 1994). The Trauma Play Scale is intended to detect differences in the play behaviors of children with a history of trauma in comparison with children with no known history of trauma, through the assessment of a cluster of play behaviors that are believed to be indicative of posttraumatic responses in children. The scale is designed to detect these differences as they occur over time within the context of the child's ongoing relationship with a play therapist. I then sought to explore the psychometric properties of the Trauma Play Scale

through the use of a pilot study, wherein the play therapy behaviors of children with a history of trauma were compared with the play therapy behaviors of children with no known history of trauma. Child participants were referred to the study as either traumatized or non-traumatized, according to the referring therapists' clinical judgments; all clinical judgments were derived in consultation with the referring therapists' clinical supervisors. Six children were referred to the trauma history group and six children were referred to the no known trauma history group. A series of eight consecutive videotaped play therapy sessions were collected for each of the children involved in the study. These sessions occurred during the early phase of therapy (i.e., sessions two through thirteen). My faculty mentor and I trained five raters in the application of the Trauma Play Scale. The raters then rated the videotaped play therapy sessions without awareness of each child's presenting issues, including whether or not the child was classified in the trauma history group or the no known trauma history group. The data generated from this pilot study was then used to evaluate the psychometric properties of the current version of the Trauma Play Scale. In particular, interrater and intra-rater reliability estimates were obtained as well as evidence of the known-group discriminant validity (Netemeyer, Bearden, & Sharma, 2003) of the current version of the Trauma Play Scale. I also conducted a limited survey of experts in the fields of play therapy and traumatology in order to evaluate the construct validity (face validity) of the Trauma Play Scale. Chapter two of this document contains detailed descriptions of the process of instrument development as well as pilot study methodology.

Reliability Estimates

Consensus and consistency estimates of interrater reliability were both utilized during the initial and midpoint raters' training sessions (Barrett, 2001; Stemler, 2004). Percentage agreement estimates of interrater reliability are termed 'consensus' estimates, whereas

correlational estimates of interrater reliability are termed ‘consistency’ estimates (Stemler, 2004). “Consensus estimates of interrater reliability are based on the assumption that reasonable observers should be able to come to agreement about how to apply the various levels of a scoring rubric to the observed behaviors” (Stemler, 2004). Consensus estimates of interrater reliability may be understood as a measure of how well a particular team of raters has come to consensus on the meanings embedded within the rating scale. Consistency estimates of interrater reliability do not necessarily assume that two judges share a common understanding of the rating scale; these measures assess whether each judge is consistent in applying the rating scale according to his or her own definition of the scale (Stemler, 2004). Consistency estimates of interrater reliability may be understood as a measure of the similarity of patterns between raters’ ratings. For instance, two raters may observe the same behavior and assign different ratings to this behavior. If the two raters’ ratings are consistent in their patterns of variation (i.e., one rater consistently rates the behavior two points higher than the other rater), then the raters would be said to have a high level of interrater reliability even though the two raters have unique interpretations of the behavior.

According to Stemler (2004), “...a typical guideline found in the literature for evaluating the quality of interrater reliability based upon consensus estimates is that they should be 70% or greater.” Barrett (2001), asserted that, “...values greater than 0.70 are typically acceptable for consistency estimates of interrater reliability.” Therefore, the researcher used the 70% benchmark in interpreting consensus estimates of interrater reliability (i.e., percentage agreement estimates), and the .70 benchmark in interpreting consistency estimates of interrater reliability (correlational estimates) (Stemler, 2004; Barrett, 2001). Consistency estimates were used in evaluating intra-rater reliability.

I computed consistency estimates of interrater reliability estimates using Pearson's r correlation coefficients. Percentage agreement scores were employed as a measure of consensus among raters. Percentage agreement was calculated through dividing the total number of agreements by the total number of observations and multiplying by 100. Agreements were defined as ratings that fell within one point of the mode (most frequently occurring rating). This is termed "within one-point agreement." Precedents for the use of percentage agreement (within one point) occur throughout the body of social sciences research (Turner-Stokes & Rusconi, 2003; Young, 1994; Vantage, 1998). Of particular relevance to the current study is that the authors of a similar observation-based rating scale, the Play Therapy Observation Instrument, employed the within one point percentage agreement standard in establishing interrater reliability for that measure (Howe & Silvern, 1981).

Interrater Reliability

Interrater Reliability at Initial Raters' Training Session

Table 1 presents the results of interrater reliability analyses based upon data generated at the initial raters' training session.

Table 1

Interrater Agreement at Initial Raters' Training Session

Domains	Percentage Agreement	Pearson r
Overall	97%	.86
Intense Play	100%	.67
Repetitive Play	97%	.95
Disruption	95%	.68
Avoidant Behavior	97%	.85
Negative Affect	97%	.85

As indicated in Table 1, raters attained 97% percentage agreement across all data from this training session. This result indicates that raters were able to come to a high degree of consensus as they rated nine 5-minute segments of videotaped play therapy sessions during the initial raters' training session. The raters attained a mean correlation coefficient of .86 across all data rated during the initial raters' training session. This result indicates that raters were highly consistent in their application of the Trauma Play Scale to the videotaped segments used in this training session. In my view, the Overall rating is the most vital assessment of interrater reliability. Specific domain scores are provided in order to allow the reader to evaluate how the various domains of the Trauma Play Scale contributed to the overall reliability of the scale. For the Intensity scale, raters attained 100% percentage agreement and a mean correlation coefficient of .67. For the Repetitive Play scale, raters attained 97% percentage agreement and a mean correlation coefficient of .95. For the Play Disruptions scale, raters attained 95% percentage agreement and a mean correlation coefficient of .68. For the Avoidant Behavior scale, raters attained 97% percentage agreement and mean correlation coefficients of .96. For the Negative Affect scale, raters attained 97% percentage agreement and a mean correlation coefficient of .85. According to Stemler's (2004) rubric for interpreting consensus based interrater reliability estimates, raters achieved a high level of consensus on the rating scale as a whole as well as on each domain of the rating scale. When the domains were analyzed according to consistency estimates of interrater reliability (i.e., correlations), the Intensity and Play Disruption domains appeared to be somewhat weaker than the others. This result suggests that raters' interpretations of the behaviors within these domains varied in different patterns. For example, rater number one may have viewed a break in a child's play as a play disruption whereas rater number two

may have viewed the same break as an indication that the child was simply satisfied and ready to move on to a new form of expression.

Interrater Reliability at Midpoint Raters' Training Session

Estimates of interrater reliability were calculated for the entire set of data rated during the midpoint raters' training session (nine 5-minute segments of videotaped play therapy sessions).

Table 2 presents results of interrater reliability analyses based upon data generated at the midpoint raters' training session.

Table 2
Interrater Agreement at Midpoint Raters' Training Session

Domains	Percentage Agreement	Pearson r
Overall	98%	.80
Intense Play	100%	.66
Repetitive Play	91%	.80
Disruption Avoidant Behavior	100%	.68
Negative Affect	100%	.96
Affect	100%	.88

As indicated in Table 2, raters attained 98% percentage agreement across all data from this training session. This result indicates that raters came to a high degree of consensus as they applied the Trauma Play Scale to the videotaped segments presented in the midpoint raters' training session. The Overall rating includes all data rated during this training session; as such, this rating seems to be the most stable assessment of interrater reliability. Specific domain scores provided additional information related to the overall reliability of the scale. Using correlational estimates of interrater reliability, the raters attained a mean correlation coefficient

of .80 across all data rated during the midpoint raters' training session. This result indicates that raters were highly consistent, as a group, in their interpretation of various play behaviors observed during this training session. For the Intensity scale, raters attained 100% percentage agreement and a mean correlation coefficient of .66. For the Repetitive Play scale, raters attained 91% percentage agreement and a mean correlation coefficient of .80. For the Play Disruption scale, raters attained 100% percentage agreement and a mean correlation coefficient of .68. For the Avoidant Behavior scale, raters attained 100% percentage agreement and a mean correlation coefficient of .96. For the Negative Affect scale, raters attained 100% agreement and a mean correlation coefficient of .88. These results indicate that raters achieved a high level of consensus on each of the domains, when percentage agreement was used as the standard to assess interrater reliability (Stemler, 2004). Correlational estimates of interrater reliability indicate that raters had similar patterns of ratings among all domains except for the Intensity domain and the Play Disruption domain. This indicates that raters continued to view these behaviors somewhat differently at the midpoint raters' training session.

Intra-rater Reliability

Intra-rater reliability estimates were calculated for each rater. Each rater was instructed to re-rate the third session in the first series that they rated after they had finished rating all of the sessions in that series. Therefore, there were five intervening sessions between the time of the first trial and the time of the second trial. I used the raters' Total Trauma Play Scale Scores as a basis of comparison for the raters' ratings in trial one and trial two. I opted to use consistency measures of intra-rater reliability to assess raters' consistency (with their own scores) across time (Barrett, 2001). Pearson's r correlation coefficients were computed to obtain estimates of intra-rater reliability; the results of these analyses are presented in Table 3.

Raters 1 to 5	Pearson r
Rater #1	.989
Rater #2	.916
Rater #3	.907
Rater #4	.967
Rater #5	.855

As indicated in Table 3, raters attained intra-rater reliability coefficients ranging from .855 to .989. This indicates that the raters maintained a high degree of consistency in their ratings across time. That is, raters interpreted play behaviors in the first viewing of a particular videotaped session in a similar manner as they interpreted the same play behaviors in the second viewing of that videotaped session.

Validity Estimates

Face Validity

Face validity of the current version of the Trauma Play Scale was evaluated through a limited survey of experts in the fields of play therapy and traumatology. I mailed a complete copy of the current version of the Trauma Play Scale and user's guide to twelve experts in the areas of play therapy or traumatology. The experts represent a broad range of theoretical approaches to play therapy, including Adlerian, Jungian, Gestalt, and humanistic play therapists. Experts' names and qualifications are presented in Appendix H. Experts' comments were collected anonymously in order to elicit frank appraisals of the current version of the Trauma Play Scale. Experts were asked to provide specific feedback related to the validity of the scale as a measure of the construct of posttraumatic play using the Trauma Play Scale Expert Evaluation Form (Appendix E). Experts were asked to rate the scale as a whole as well as each subscale of

the Trauma Play Scale according to their level of agreement as to whether the scale (or subscales) adequately captured the constructs they are intended to measure. Responses ranged from “strongly disagree” to “strongly agree” for each item. I converted experts’ responses to numeric responses for the purpose of obtaining an average score across all experts for the scale as a whole and each subscale. The experts’ ratings are presented in Table 4. Comments from experts are presented in qualitative form in Appendix G.

Table 4
Experts’ Rating Scale Scores for Each Domain of the Trauma Play Scale

	Valid Measure Trauma Play	Approp. of Domains	Intense Play Domain	Repetitive Play Domain	Play Disruption Domain	Avoid. Beh. Domain	Neg. Affect Domain
Expert #1	4	4	4	4	4	4	4
Expert #2	5	5	5	4	4	5	4
Expert #3	5	5	5	5	5	5	5
Expert #4	4	4	3	4	5	5	4
Expert #5	4	4		4	5	4	5
Expert #6	5	4	5	5	5	5	5
Avg. Ratings	4.5	4.3	4.4	4.3	4.7	4.7	4.5

As illustrated in Table 4, experts generally agreed that the current version of the Trauma Play Scale is a valid measure of the construct of posttraumatic play. For the scale as a whole, experts’ average rating was a 4.5, which falls between the “agree” and “strongly agree” responses. When asked whether the five domains included in the current version of the Trauma Play Scale seem appropriate for inclusion in a measure of posttraumatic play, experts’ average rating was again 4.3, indicating moderate to strong agreement. Experts rated the Intense Play

scale at a 4.4, indicating moderate to strong agreement that the behavioral descriptors for the Intense Play scale are clear and relevant to the concept of intense play. One expert neglected to mark a response for this category; therefore, the resulting average should be viewed with some caution. Experts rated the Repetitive Play scale at a 4.3, indicating moderate to strong agreement that the behavioral descriptors for the Repetitive Play scale are clear and relevant to the concept of repetitive play. Experts rated the Play Disruption scale at a 4.7, indicating strong agreement that the behavioral descriptors for the Play Disruption scale are clear and relevant to the concept of play disruption. Experts rated the Avoidant Play Behavior scale at a 4.7, indicating strong agreement that the behavioral descriptors for the Avoidant Play Behavior scale are clear and relevant to the concept of avoidant play. Experts rated the Negative Affect scale at a 4.5, indicating moderate to strong agreement that the behavioral descriptors for the Negative Affect scale are clear and relevant to the concept of negative affect.

Overall, the experts reviewed indicated their agreement that the Trauma Play Scale as a whole, as well as its various subscales, is an adequate measure of the constructs it is intended to measure. This measure of face validity supports the overall construct validity of the current version of the Trauma Play Scale.

Discriminant Validity

Discriminant validity of the Trauma Play Scale was evaluated through analysis of pilot study data, in particular, the ratings generated from observation of videotaped play therapy sessions.

Analysis of Pilot Study Data

Pilot study data were analyzed at both the series level and the session level. I computed series level scores for each domain of the Trauma Play Scale, as well as the Average Trauma

Play Scale score, which is a measure that encompasses scores across domains. Each series level score represents the average of the session scores for each participant. Series level scores were analyzed using the oneway analysis of variance (ANOVA) statistic. I computed session level scores for each domain of the Trauma Play Scale, as well as the Average Trauma Play Scale score. Each session level score represents the average of the segment level scores (i.e., nine five-minute segment scores) for each participant. I analyzed session level scores using the repeated measures analysis of variance approach. I chose to use the .05 level of statistical significance as an aid to the interpretation of statistical results. Statistical significance tests are notoriously affected by sample size (Thompson, 2002); that is, larger sample sizes increase the power of statistical significance tests, whereas smaller sample sizes decrease the power of statistical significance tests (Newman & Newman, 1994, p. 63). In the present study, limited sample size ($n=12$) may have adversely affected the results of the statistical significance tests. I chose to use the .10 level as the threshold to mark noteworthy trends in the data. Effect sizes, such as eta squared and Cohen's d offer additional information about the magnitude of effects, independent of sample size; this is often termed practical significance (Thompson, 2002). According to Henson and Smith (2000), the Task Force on Statistical Inference (APA) issued a report admonishing researchers to "*always* report effect sizes for primary outcomes...reporting and interpreting effect sizes in the context of previously reported effects is essential to good research." The authors note that this strong guidance is in accordance with the policies of several scholarly journals that require that researchers report effect sizes in their statistical analyses (Henson & Smith, 2000). I opted to explore effect sizes, specifically eta squared effect sizes, as a means of assessing the practical significance of statistical results. The following guidelines were used in the interpretation of 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 (Cohen, 1988). According to Trusty, Thompson, and Petrocelli (2004), effect sizes should be interpreted within the context of the study as a whole; I attempted to analyze the results in a way that is meaningful within the particular context of this study. In all statistical analyses, participants' scores on the Trauma Play Scale served as the dependent variable and participants' trauma history status served as the independent variable. Repeated measures ANOVAs provided an additional measure of the interaction between these two variables, over time. One of the assumptions of the repeated measures ANOVA approach is that the data has sphericity. Weinfurt (2000) explained that data are considered to have sphericity when, "a) the variances of the measures at each level of the repeated factors are equal, and b) the covariances, and hence correlations, between the measures at each level of the repeated factor are also equal." Sphericity may be understood as analogous to the homogeneity of variance assumption that is required for oneway ANOVAs. The Huynh-Feldt correction was used in two instances wherein the data did not meet the sphericity assumption.

Series Level Average Trauma Play Scale Scores

The following tables illustrate the Average Trauma Play Scale Scores at the series level. I computed a single aggregate score for each participant in the pilot study; this score is the average of eight Average Trauma Play Scale Scores, one for each session. Table 5 includes the means and standard deviations for each group on the Series Level Average Trauma Play Scale Scores. Table 6 presents the results from the oneway ANOVA conducted using the Series Level Average Trauma Play Scale Scores for both the trauma history group and the no known trauma history group.

Table 5
Mean Scores for the Series Level Average Trauma Play Scale Scores

	Trauma History Group (n=6)	No Known Trauma History (n=6)
Mean	2.6516	2.1031
Standard Deviation	.58773	.3604
Total cases =	6	6

Table 6
ANOVA Summary Table for the Series Level Average Trauma Play Scale Scores

Source	Sum of Squares	df	MS	F	P	η^2
Between Group	.903	1	.903	3.794	.080	0.2752
Within Group	2.379	10	.238			0.7250
Total	3.281	11				

Table 6 presents the results from the oneway ANOVA. It addresses the differences between the two groups on the Series Level Average Trauma Play Scale Score. The group effect was not statistically significant, $F(1,11)=3.794$, $p=.08$, $\eta^2=0.2752$. However, the group effect accounted for 27% ($\eta^2=.27$; a large effect) of the variance in the two groups' Series Level Average Trauma Play Scale Scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Series Level Average Trauma Play Scale Scores.

Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play

I opted to examine the data omitting the Repetitive Play Domain. My rationale for omitting repetitive play from these analyses is discussed in a later section within this chapter. The researcher computed a Series Level Average Trauma Play Scale Score with the remaining four domain scores; that is, Intense Play, Play Disruption, Avoidant Play, and Negative Affect. Table 7 presents the means and standard deviations for each group on the Series Level Average

Trauma Play Scale Scores, Omitting Repetitive Play. Table 8 provides a summary of the results of the oneway ANOVA that was derived from the same data.

Table 7

Mean Scores for the Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play

	Trauma History Group (<i>n</i> =6)	No Known Trauma History (<i>n</i> =6)
Mean	2.6760	2.0254
Standard Deviation	.52345	.30033
Total cases =	6	6

Table 8

ANOVA Summary Table for the Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play

Source	Sum of Squares	df	MS	F	<i>P</i>	η^2
Between Group	1.27	1	1.270	6.974	.025	0.4108
Within Group	1.821	10	.182			0.5891
Total	3.092	11				

Table 8 addresses the difference between the two groups on the Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play. The group effect was statistically significant, $F(1, 11) = 6.974, p = .025, \eta^2 = 0.4108$. The group effect accounted for 41% ($\eta^2 = .41$; a large effect) of the variance in the two groups' Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play. This very large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a very strong relationship with the Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play.

Series Level Average Domain Scores

Average domain scores were computed for each participant at the series level. These scores represent a child's average scores on a particular domain, across the entire series. For example, to compute a child's series level Intense Play score, I took the child's average Intense

Play Score for each session (the Intense Play scores for ten five-minute segments) and then averaged these scores across the entire series (all eight sessions). I then compared the group means for the trauma history group and the no known trauma history group, using the oneway ANOVA approach. Table 9 presents the means and standard deviations for each group on the Series Level Intense Play Domain Scores. Table 10 provides a summary of the results of a oneway ANOVA conducted using the same raw data.

Table 9
Mean Scores for the Series Level Intense Play Domain Scores

	Trauma History Group (<i>n</i> =6)	No Known Trauma History (<i>n</i> =6)
Mean	3.0396	2.521
Standard Deviation	.30475	.53534
Total cases =	6	6

Table 10
ANOVA Summary Table for the Series Level Intense Play Domain Scores

Source	Sum of Squares	df	MS	F	<i>P</i>	η^2
Between Group	.835	1	.835	4.400	.062	0.3056
Within Group	1.897	10	.190			0.6943
Total	2.732	11				

Table 10 addresses the differences between the two groups on the Series Level Intense Play Domain Score. The group effect was not statistically significant, $F(1,11)=4.400$, $p=.062$, $\eta^2=0.3056$. Clearly, this group effect approaches statistical significance at the .05 level. 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. The large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Series Level Intense Play Domain scores.

Table 11 presents the means and standard deviations of the two groups on the Series Level Repetitive Play Domain Scores. Table 12 indicates the results of the oneway ANOVA derived from the same information.

Table 11
Mean Scores for the Series Level Repetitive Play Domain Scores

	Trauma History Group (n=6)	No Known Trauma History (n=6)
Mean	2.5297	2.4297
Standard Deviation	.85715	.76840
Total cases =	6	6

Table 12
ANOVA Summary Table for Avg. Repetitive Play Scores, Entire Series

Source	Sum of Squares	df	MS	F	P	η^2
Between Group	.030	1	.030	.045	.836	.0045
Within Group	6.626	10	.663			.9954
Total	6.656	11				

Table 12 addresses the difference between the two groups on the Series Level Repetitive Play Domain Score. The group effect was not statistically significant, $F(1,11)=.045$, $p=.836$, $\eta^2=.0045$. This result indicates that group membership (trauma history versus no known trauma history) has a very weak relationship ($\eta^2=.00$; a small effect) with the Series Level Repetitive Play Domain score.

Table 13 presents the means and standard deviations of the two groups on the Series Level Play Disruption Domain Scores. Table 14 indicates the results of the oneway ANOVA conducted with the same data.

Table 13
Mean Scores for the Series Level Play Disruption Domain Scores

	Trauma History Group (n=6)	No Known Trauma History (n=6)
Mean	1.8687	1.4411
Standard Deviation	.57587	.33752
Total cases =	6	6

Table 14
ANOVA Summary Table for the Series Level Play Disruption Domain Scores

Source	Sum of Squares	df	MS	F	P	η^2
Between Group	.548	1	.548	2.462	.148	0.1974
Within Group	2.228	10	.223			0.8025
Total	2.776	11				

Table 14 addresses the difference between the two groups on the Series Level Play Disruption Domain Score. The group effect was not statistically significant, $F(1,11)=2.462$, $p=.148$, $\eta^2=0.1974$. The group effect accounted for 19% ($\eta^2=.19$; a large effect) of the variance in the two groups' Series Level Play Disruption Domain Scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Series Level Play Disruption Domain Scores.

Table 15 presents the means and standard deviations of the two groups on the Series Level Avoidant Play Domain Scores. Table 16 presents the results of the related oneway ANOVA.

Table 15
Mean Scores for the Series Level Avoidant Play Domain Scores

	Trauma History Group (n=6)	No Known Trauma History (n=6)
Mean	2.7494	1.8007
Standard Deviation	1.13278	.54478
Total cases =	6	6

Table 16
ANOVA Summary Table for Avg. Avoidant Play Behavior Scores, Entire Series

Source	Sum of Squares	df	MS	F	P	η^2
Between Group	2.700	1	2.700	3.418	.094	0.2547
Within Group	7.900	10	.790			0.7452
Total	10.600	11				

Table 16 addresses the difference between the two groups on the Series Level Avoidant Play Domain Score. The group effect was not statistically significant, $F(1,11)=3.418$, $p=.094$, $\eta^2=0.2547$. The group effect accounted for 25% ($\eta^2=.25$; a large effect) of the variance in the two groups' Series Level Avoidant Play Domain Scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Series Level Avoidant Play Domain Scores.

Table 17 presents the means and standard deviations for each group on the Series Level Negative Affect Domain Scores. Table 18 summarizes the results of the oneway ANOVA conducted with the same data.

Table 17
Mean Scores for the Series Level Negative Affect Domain Scores

	Trauma History Group (n=6)	No Known Trauma History (n=6)
Mean	3.0462	2.3450
Standard Deviation	.71304	.59561
Total cases =	6	6

Table 18
ANOVA Summary Table for Series Level Negative Affect Domain Scores

Source	Sum of Squares	df	MS	F	P	η^2
Between Group	1.475	1	1.475	3.417	.094	0.2547
Within Group	4.316	10	.432			0.7452
Total	5.791	11				

Table 18 addresses the difference between the two groups on the Series Level Negative Affect Domain Score. The group effect was not statistically significant, $F(1,11)=3.417$, $p=.094$, $\eta^2=0.2547$. The group effect accounted for 25% ($\eta^2=.25$; a large effect) of the variance in the two groups' Series Level Negative Affect Scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Series Level Negative Affect Domain Scores.

Session Level Average Trauma Play Scale Scores

Session Level Average Trauma Play Scale Scores were computed for each participant. These scores were derived from an average of each child's Trauma Play Scale Scores, across all five domains, including Intense Play, Repetitive Play, Play Disruption, Avoidant Play Behavior, and Negative Affect. The session level scores are an average of each child's Average Trauma Play Scale Score (across domains) for each five-minute segment within a 50 minute session (10 5-minute segments per session).

Table 19 presents the means and standard deviations for each group on the Session Level Average Trauma Play Scale Scores. Figure 1 presents the session means for each group, graphically. Table 20 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Average Trauma Play Scale Scores.

Table 19
Means and Standard Deviations for Session Level Average Trauma Play Scale Scores

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Session 1		
Mean	2.3030	1.8358
Standard Deviation	.58590	.44846
Session 2		
Mean	2.7942	2.0185
Standard Deviation	.68857	.53677
Session 3		
Mean	2.7605	2.2248
Standard Deviation	.63461	.59310
Session 4		
Mean	2.7208	2.3295
Standard Deviation	.51123	.29925
Session 5		
Mean	2.6465	2.2358
Standard Deviation	.78983	.73703
Session 6		
Mean	2.6344	2.2840
Standard Deviation	.62079	.44104
Session 7		
Mean	2.5823	2.0123
Standard Deviation	.72393	.45097
Session 8		
Mean	2.7714	1.8845
Standard Deviation	.59995	.53402
Total Group		

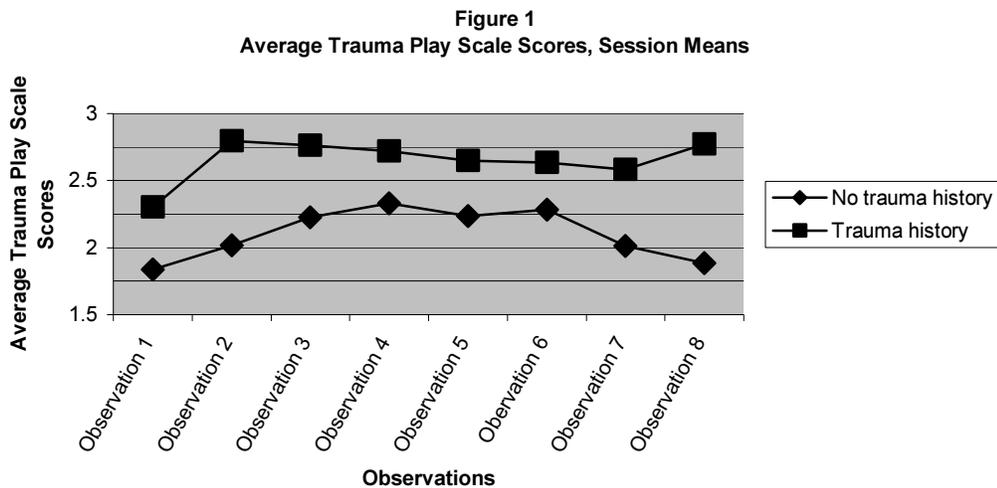


Table 20
ANOVA Summary Table for Session Level Average Trauma Play Scale Scores

Source	Sum of Squares	df	MS	F	<i>p</i>	η^2
Group	7.22	1	7.22	3.794	.080	.1927
Error	19.028	10	1.903			
Session	1.805	7	.258	2.092	.056	.0482
Session x						
Group	.769	7	.110	.891	.518	.0205
Error	8.629	70	.123			
Total	37.451					

I analyzed the Session Level Average Trauma Play Scale Scores between groups, across time, and the interaction of the two using repeated measures ANOVA. Session Level Average Trauma Play Scale Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures was verified through Mauchly's Test of Sphericity, $W(27) = .004$, $\chi^2 = 41.493$, $p = .058$. This result indicates that the sphericity assumption was not met, by a slight degree. Therefore, I used the Huynh-Feldt correction while interpreting results of the repeated measures ANOVA. Table 18 indicates that the group main effect was not statistically significant, $F(1, 10) = 3.794$, $p = .080$, $\eta^2 = .1927$. The group main effect accounted for 19% ($\eta^2 = .19$; a large effect) of the variance in the Session Level Average Trauma Play Scale Scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Session Level Average Trauma Play Scale Score. The Session main effect was also not statistically significant, $F(7, 70) = 2.092$, $p = .056$, $\eta^2 = .0482$. The interaction effect (i.e., Session x Group) was not statistically significant, $F(7, 70) = .891$, $p = .518$, $\eta^2 = .0205$.

Post-Hoc Analyses Omitting Repetitive Play

I calculated a session level aggregate Trauma Play Scale score for each participant without including the Repetitive Play domain. My rationale for omitting repetitive play from these analyses is discussed in a later section within this chapter. This score is termed the Session Level Average Trauma Play Scale Score, Omitting Repetitive Play. These scores were derived from an average of each child's Trauma Play Scale Scores, across four domains, including Intense Play, Repetitive Play, Play Disruption, Avoidant Play Behavior, and Negative Affect. The session level scores are an average of each child's Average Trauma Play Scale Score, Omitting Repetitive Play (across domains) for each five-minute segment within a 50 minute session (10 5-minute segments per session).

Table 21 presents the means and standard deviations for each group on the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play. Figure 7 presents the session means for each group, graphically. Table 22 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play.

Table 21
Means and Standard Deviations for Session Level Average Trauma Play Scores, Omitting Repetitive Play Domain

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Session 1		
Mean	2.4287	1.9029
Standard Deviation	.50918	.44363
Session 2		
Mean	2.8283	1.9870
Standard Deviation	.62330	.53621
Session 3		
Mean	2.7784	2.1685

(table continues)

Table 21 (continued)

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Standard Deviation	.55328	.60793
Session 4		
Mean	2.7821	2.3036
Standard Deviation	.47900	.20689
Session 5		
Mean	2.5834	2.1401
Standard Deviation	.66948	.64501
Session 6		
Mean	2.5998	2.0388
Standard Deviation	.57437	.37456
Session 7		
Mean	2.6631	1.9228
Standard Deviation	.64786	.40210
Session 8		
Mean	2.7445	1.7394
Standard Deviation	.56642	.48930
Total Group		

Figure 2
Average Trauma Play Scale Scores, Omitting Repetitive Play Domain, Session Means

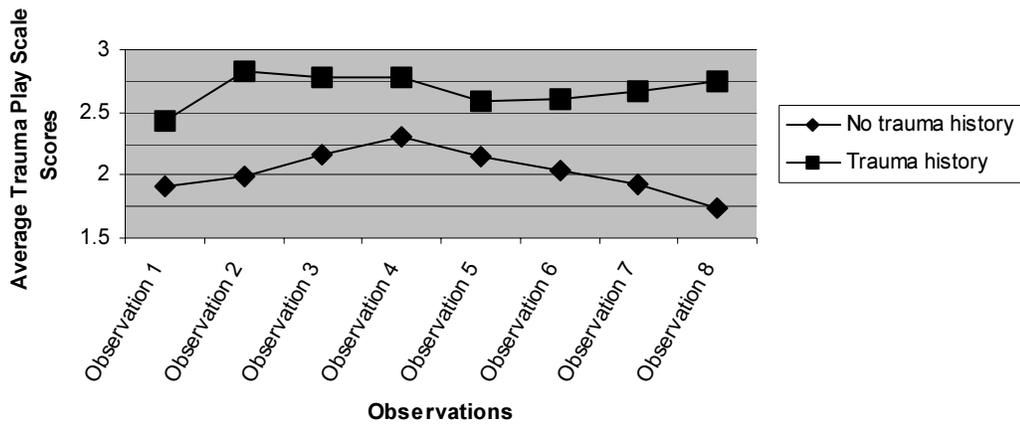


Table 22
ANOVA Summary Table for Session Level Average Trauma Play Scores, Omitting Repetitive Play Domain

Source	Sum of Squares	df	MS	F	<i>p</i>	η^2
Group	162.557	1	162.557	6.974	.025	0.2901
Error	233.091	10	23.309			
Session	20.295	5.542	3.662	1.545	.186	0.0362
Session x Group	12.860	5.542	2.321	.979	.444	0.2345
Error	131.400	55.418	2.371			
Total	560.230					

*Huynh-Feldt correction was used due to violation of the sphericity assumption.

I analyzed the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play between groups, across time, and the interaction between the two using repeated measures ANOVA. Session Level Average Trauma Play Scale Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was tested through Mauchly's Test of Sphericity, $W(27) = .003$, $\chi^2 = 43.178$, $p = .041$. The sphericity assumption for this analysis was not met; therefore, I used the Huynh-Feldt correction while interpreting this output. Table 22 indicates that the group main effect was statistically significant, $F(1,10) = 6.974$, $p = .025$, $\eta^2 = .2901$. The group main effect accounted for 29% ($\eta^2 = .29$; a large effect) of the variance in the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play. The session main effect was not statistically significant, $F(5.542, 55.418) = 1.545$, $p = .186$, $\eta^2 = .0362$. The interaction effect (i.e., Session x Group) was also not statistically significant, $F(5.542, 55.418) = .979$, $p = .444$, $\eta^2 = .2345$. This indicates that the interaction effect accounted for 23% ($\eta^2 = .23$; a large effect) of

the variance in the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play. This large effect size (Cohen, 1988) indicates that the interaction between group and time shares a strong relationship with the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play.

Session Level Average Domain Scores

I calculated Session Level Average Domain Scores for each domain of the Trauma Play Scale; that is, the Intense Play, Repetitive Play, Play Disruption, Avoidant Play Behavior, and Negative Affect domains. The session level average domain scores represent an average of each child’s scores on each domain across ten five-minute segments within one session. I then averaged each child’s session level average domain score to obtain a group session level average domain score.

Table 23 presents the means and standard deviations for each group on the Session Level Intense Play Domain Scores. Figure 3 presents the session means for each group, graphically. Table 24 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups’ Session Level Intense Play Domain Scores.

Table 23
Means and Standard Deviations for Session Level Intense Play Domain Scores

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Session 1		
Mean	2.1319	2.2717
Standard Deviation	.95964	.54054
Session 2		
Mean	2.9972	2.4917
Standard Deviation	.77600	.76163
Session 3		
Mean	3.0054	2.4650
Standard Deviation	.37506	.93097
Session 4		

(table continues)

Table 23 (continued)

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Mean	3.2152	2.5722
Standard Deviation	.50795	.84000
Session 5		
Mean	2.9617	3.0089
Standard Deviation	.76538	.67135
Session 6		
Mean	3.2031	2.6120
Standard Deviation	.26719	.61228
Session 7		
Mean	3.3696	2.5391
Standard Deviation	.31951	.59394
Session 8		
Mean	3.4328	2.1361
Standard Deviation	.40372	.65632
Total Group		

Figure 3
Average Intense Play Domain Scores, Session Means

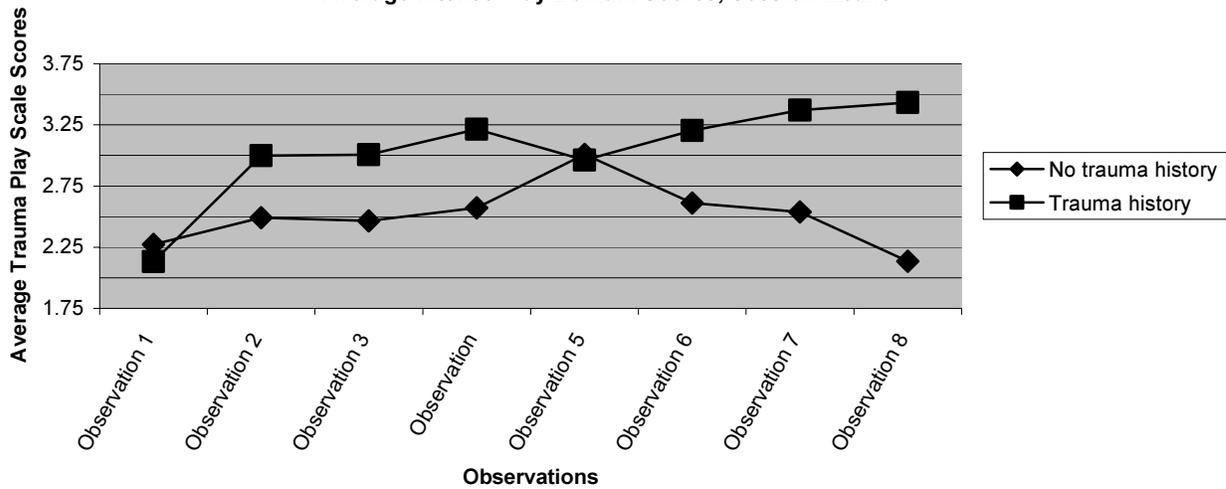


Table 24

ANOVA Summary Table for Session Level Average Intense Play Domain Scores

Source	Sum of Squares	df	MS	F	<i>p</i>	η^2
Group	6.679	1	6.697	4.400	.062	0.1334
Error	15.179	10	1.518			
Session	5.271	7	.753	2.730	.015	0.1036
Session x Group	4.431	7	.633	2.295	.036	0.0871
Error	19.310	70	.276			
Total	50.87					

I analyzed the Session Level Intense Play Domain Scores between groups, across time, and the interaction of the two using repeated measures ANOVA. Session Level Intense Play Domain Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was verified through Mauchly's Test of Sphericity, $W(27) = .034$, $\chi^2 = .25.165$, $p = .633$. Table 24 indicates that the group main effect was not statistically significant, $F(1, 10) = 4.400$, $p = .062$, $\eta^2 = .1334$. The group main effect accounted for 13% ($\eta^2 = .13$; a medium effect) of the variance in the Session Level Intense Play Domain Scores. This medium effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a moderate relationship with the Session Level Intense Play Domain Score. The session main effect was statistically significant, $F(7, 70) = 2.730$, $p = .015$, $\eta^2 = .1036$. This indicates that time, irrespective of group membership, had a significant impact on participants' Session Level Intense Play Domain scores. The interaction effect (i.e., Session x Group) was also statistically significant, $F(7, 70) = 2.295$, $p = .036$, $\eta^2 = .0871$. This indicates that the interaction between group membership and time had a significant impact on participants' Session Level Intense Play Domain scores.

Table 25 presents the means and standard deviations for each group on the Session Level Repetitive Play Domain Scores. Figure 4 presents the session means for each group, graphically. Table 26 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Repetitive Play Domain Scores.

Table 25
Means and Standard Deviations for Session Level Repetitive Play Domain Scores

	Trauma History Group (<i>n</i> =6)	No Known Trauma History Group (<i>n</i> =6)
Session 1		
Mean	1.8585	1.5992
Standard Deviation	1.23188	1.04586
Session 2		
Mean	2.6492	2.0563
Standard Deviation	1.09156	.90746
Session 3		
Mean	2.6117	2.3220
Standard Deviation	.99646	1.04128
Session 4		
Mean	2.5065	2.4030
Standard Deviation	.82437	1.28599
Session 5		
Mean	2.8023	2.6335
Standard Deviation	1.26476	1.37356
Session 6		
Mean	2.7520	3.3557
Standard Deviation	.94275	1.19085
Session 7		
Mean	2.1810	2.5443
Standard Deviation	1.07574	1.19613
Session 8		
Mean	2.8762	2.5237
Standard Deviation	.88394	1.16231
Total Group		

Figure 4
Average Repetitive Play Domain Scores, Session Means

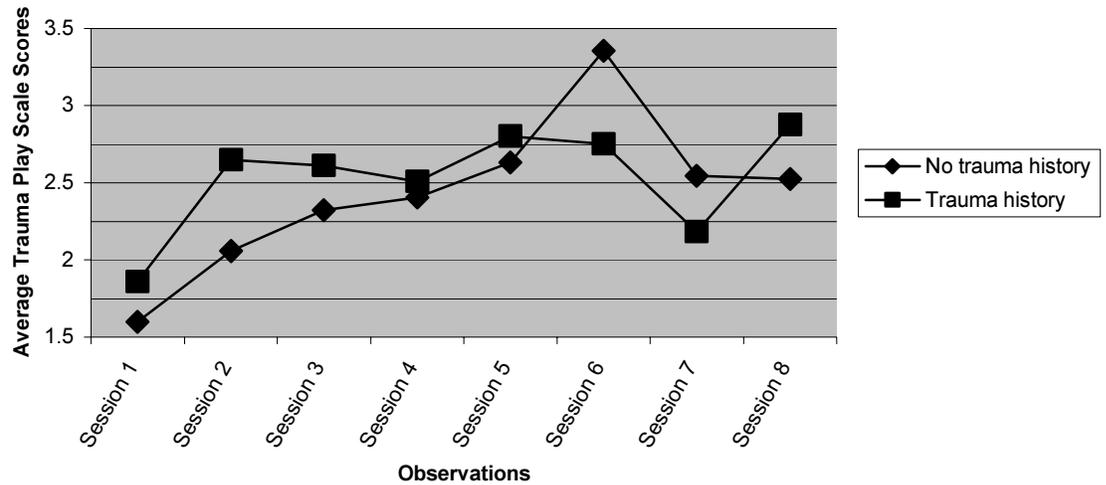


Table 26
ANOVA Summary Table for Session Level Average. Repetitive Play Domain Scores

Source	Sum of Squares	df	MS	F	<i>p</i>	η^2
Group	.240	1	.240	.045	.836	0.0021
Error	53.006	10	5.301			
Session	12.351	5.117	2.414	2.760	.027	0.1087
Session x Group	3.248	5.117	.635	.726	.610	0.0285
Error	44.746	51.173	.874			
Total	113.593					

*Huynh-Feldt correction was used due to violation of the sphericity assumption

I analyzed the Session Level Repetitive Play Domain Scores between groups, across time, and the interaction of the two using repeated measures ANOVA. Session Level Repetitive Play Domain Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was verified through Mauchly's Test of Sphericity, $W(27) = .002, \chi^2 = 46.010, p = .022$. This result indicates that the sphericity assumption was not met. Therefore, I used the Huynh-Feldt correction while interpreting the results of the repeated measures ANOVA. Table 26 indicates that the group main effect was not

statistically significant, $F(1,10)=.045$, $p=.836$, $\eta^2=0.0021$. The group main effect accounted for 0% ($\eta^2=0.0021$; a very small effect) in the Session Level Repetitive Play Domain Scores. This very small effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a very weak relationship with the Session Level Repetitive Play Domain Score. The session main effect was statistically significant, $F(5.117, 51.173)=2.760$, $p=.027$, $\eta^2=0.1087$. This indicates that time, irrespective of group membership, had a significant impact on participants' Session Level Repetitive Play Domain scores. The interaction effect (i.e., Session x Group) was not statistically significant, $F(5.117, 51.173)=.726$, $p=.610$, $\eta^2=.0285$.

Table 27 presents the means and standard deviations for each group on the Session Level Play Disruptions Domain Score. Figure 5 presents the session means for each group, graphically. Table 28 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Play Disruption Domain Scores.

Table 27

Means and Standard Deviations for Session Level Play Disruption Domain Scores

	Trauma History Group ($n=6$)	No Known Trauma History Group ($n=6$)
Session 1		
Mean	1.6143	1.3882
Standard Deviation	.40432	.44201
Session 2		
Mean	1.8567	1.3805
Standard Deviation	.64631	.23159
Session 3		
Mean	1.9903	1.3822
Standard Deviation	.71723	.47386
Session 4		
Mean	2.0390	1.5368
Standard Deviation	.88643	.38352
Session 5		
Mean	1.9660	1.4385

(table continues)

Table 27 (continued)

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Standard Deviation	.83117	.54916
Session 6		
Mean	1.7832	1.4045
Standard Deviation	.49816	.37058
Session 7		
Mean	1.798	1.4860
Standard Deviation	.70909	.46103
Session 8		
Mean	1.9002	1.5125
Standard Deviation	.63364	.55769
Total Group		

Figure 5
Average Play Disruption Domain Scores, Session Means

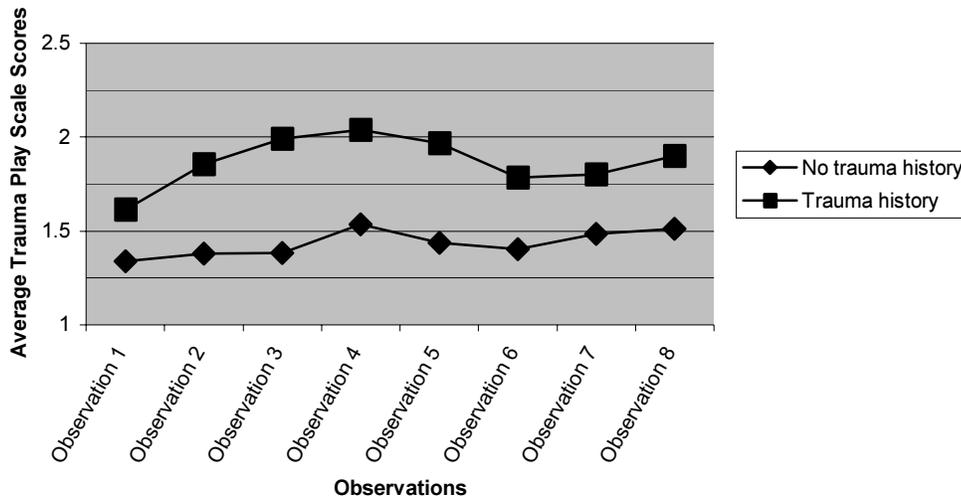


Table 28

Source	Sum of Squares	df	MS	F	p	η^2
Group	4.387	1	4.387	2.462	.148	0.1376
Error	17.822	10	1.782			
Session	.628	7	8.977	.721	.655	0.0197
Session x Group	.324	7	4.629	.372	.916	0.0101
Error	8.717	70	.125			
Total	31.878					

I analyzed the Session Level Play Disruption Domain Scores between groups, across time, and the interaction of the two using repeated measures ANOVA. Session Level Play Disruption Domain Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was verified through Mauchly's Test of Sphericity, $W(27) = .010, \chi^2 = 34.091, p = .218$. Table 28 indicates that the group main effect was not statistically significant, $F(1, 10) = 2.462, p = .148, \eta^2 = .1376$. The group main effect accounted for 13% ($\eta^2 = .13$; a medium effect) of the variance in the Session Level Play Disruption Domain Scores. This medium effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a moderate relationship with the Session Level Play Disruption Domain Score. The Session main effect was not statistically significant, $F(7, 70) = .721, p = .655, \eta^2 = .0197$. The interaction effect (i.e., Session x Group) was also not statistically significant, $F(7, 70) = .372, p = .916, \eta^2 = .0101$.

Table 29 presents the means and standard deviations for each group on the Session Level Avoidant Play Domain Score. Figure 6 presents the session means for each group, graphically. Table 30 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Avoidant Play Domain Scores.

Table 29

Means and Standard Deviations for Session Level Avoidant Play Domain Scores

	Trauma History Group ($n=6$)	No Known Trauma History Group ($n=6$)
Session 1		
Mean	2.7793	1.6825
Standard Deviation	1.61103	.69045
Session 2		
Mean	3.1160	1.6003
Standard Deviation	1.32332	.69482

(table continues)

Table 29 (continued)

	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Session 3		
Mean	2.9722	2.1218
Standard Deviation	1.27877	1.34985
Session 4		
Mean	2.8840	2.3123
Standard Deviation	1.00960	1.00799
Session 5		
Mean	2.4528	1.6283
Standard Deviation	1.29037	.61114
Session 6		
Mean	2.4923	1.8682
Standard Deviation	.99242	1.06898
Session 7		
Mean	2.5868	1.5877
Standard Deviation	.92699	.57947
Session 8		
Mean	2.7120	1.6043
Standard Deviation	1.12838	.69888
Total Group		

Figure 6
Average Avoidant Play Domain Scores, Session Means

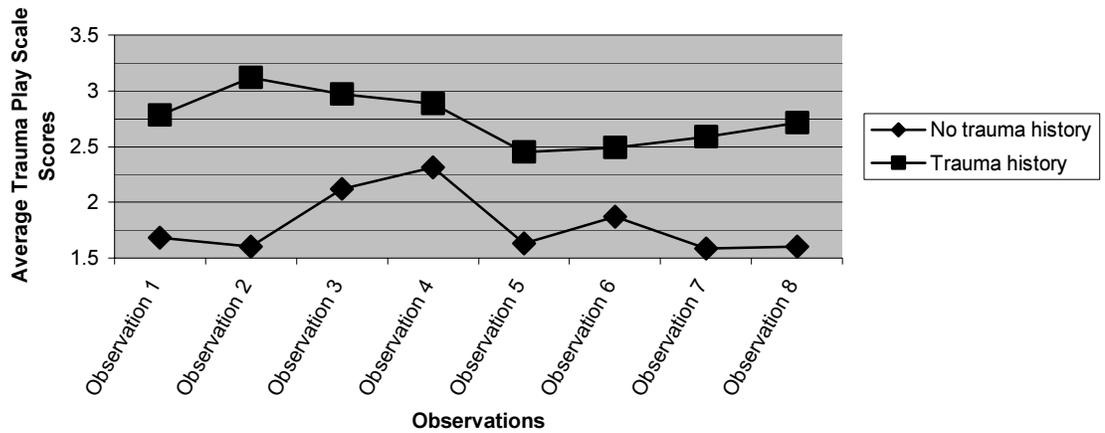


Table 30

ANOVA Summary Table for Session Level Average Avoidant Play Behavior Domain Scores

Source	Sum of Squares	df	MS	F	<i>P</i>	η^2
Group	21.603	1	210603	3.418	.094	0.1850
Error	63.199	10	6.320			
Session	3.601	7	.514	1.364	.234	0.0308
Session x Group	1.931	7	.276	.713	.646	0.0165
Error	26.410	70	.377			
Total	116.744					

I analyzed the Session Level Avoidant Play Behavior Scores between groups, across time, and the interaction between the two using repeated measures ANOVA. Session Level Avoidant Play Behavior Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was verified through Mauchly's Test of Sphericity, $W(27) = .005$, $\chi^2 = 39.626$, $p = .084$. Table 30 indicates that the group main effect was not statistically significant, $F(1, 10) = 3.418$, $p = .094$, $\eta^2 = .1850$. The group main effect accounted for 18% ($\eta^2 = .18$; a large effect) of the variance in the Session Level Avoidant Play Behavior scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Session Level Avoidant Play Behavior Domain score. The Session main effect was not statistically significant, $F(7, 70) = 1.364$, $p = .234$, $\eta^2 = .0308$. The interaction effect (i.e., Session x Group) was also not statistically significant, $F(7, 70) = .713$, $p = .646$, $\eta^2 = .0165$.

Table 31 presents the means and standard deviations for each group on the Session Level Negative Affect Domain Score. Figure 7 presents the session means for each group, graphically.

Table 32 provides a summary of the results of the repeated measures ANOVA that was conducted on the two groups' Session Level Negative Affect Domain Scores.

Table 31

<i>Means and Standard Deviations for Session Level Negative Affect Domain Scores</i>		
	Trauma History Group (n=6)	No Known Trauma History Group (n=6)
Session 1		
Mean	3.1893	2.2693
Standard Deviation	1.13521	.84839
Session 2		
Mean	3.3400	2.4702
Standard Deviation	.77664	1.00149
Session 3		
Mean	3.1462	2.7108
Standard Deviation	.70589	1.30411
Session 4		
Mean	2.9905	2.7950
Standard Deviation	.62771	.80711
Session 5		
Mean	2.9532	2.4848
Standard Deviation	.86443	1.32103
Session 6		
Mean	2.9205	2.2653
Standard Deviation	.85246	.64163
Session 7		
Mean	2.8965	2.0822
Standard Deviation	.91153	.63850
Session 8		
Mean	2.9332	1.6825
Standard Deviation	.82882	.69088
Total Group		

Figure 7
Average Negative Affect Domain Scores, Session Means

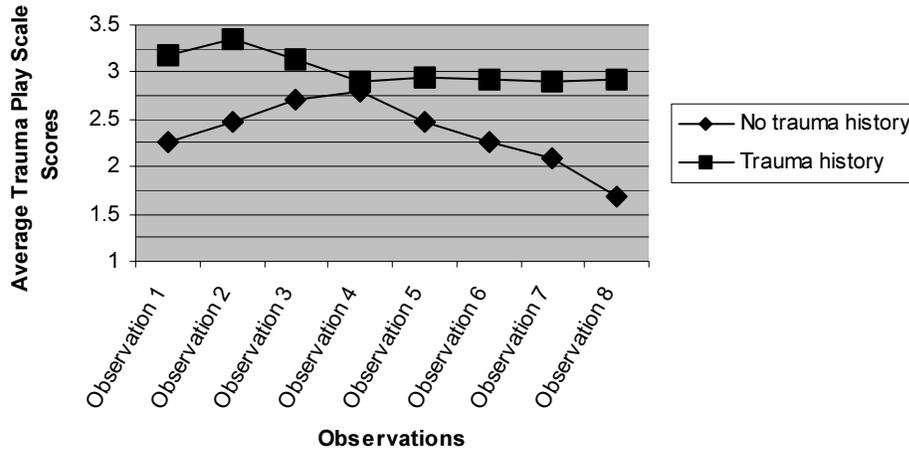


Table 32

ANOVA Summary Table for Session Level Average Negative Affect Domain Scores

Source	Sum of Squares	df	MS	F	<i>p</i>	η^2
Group	11.799	1	11.799	3.417	.094	0.1426
Error	34.527	10	3.453			
Session	4.106	5.654	.726	1.371	.244	0.0496
Session x Group	2.321	5.654	.411	.775	.586	0.0280
Error	29.936	56.541	.529			
Total	82.689					

*Huynh-Feldt correction was used due to violation of the sphericity assumption.

I analyzed the Session Level Negative Affect Scores between groups, across time, and the interaction between the two using repeated measures ANOVA. Session Level Negative Affect Scores served as the dependent variable. Group membership (trauma history versus no known trauma history) and time (i.e., 8 sessions) served as the independent variables. The sphericity assumption for repeated measures ANOVA was verified through Mauchly's Test of Sphericity, $W(27) = .002, \chi^2 = 45.303, p = .026$. The sphericity assumption was not met; therefore, I used the Huynh-Feldt correction in the interpretation of these results. Table 32 indicates that

the group main effect was not statistically significant, $F(1, 10) = 3.417, p = .094, \eta^2 = .1426$. The group main effect accounted for 14% ($\eta^2 = .14$; a large effect) of the variance in the Session Level Negative Affect Domain scores. This large effect size (Cohen, 1988) indicates that group membership (trauma history versus no known trauma history) shares a strong relationship with the Session Level Negative Affect Domain Score. The session main effect was not statistically significant, $F(5.654, 56.541) = 1.371, p = .244, \eta^2 = .0496$. The interaction effect (i.e., Session x Group) was also not statistically significant, $F(5.654, 56.541) = .775, p = .586, \eta^2 = .0280$.

Discussion

My primary goal in this project was to develop an observation-based instrument that provides information about the impact of trauma, as seen in the play behaviors of young children as they engage in play therapy. The following section includes a detailed discussion of the psychometric properties of the current version of the Trauma Play Scale, based on the information gained through the implementation of the pilot study. Preliminary reliability and validity characteristics of the current version of the Trauma Play Scale are explored. In addition, suggestions for future research, including potential revisions to the current version of the Trauma Play Scale, are provided.

Reliability

Interrater Reliability at Initial Raters' Training Session

As revealed in Table 1, the raters attained a high degree of interrater reliability during the initial raters' training session (Stemler, 2004). The Overall rating includes all data presented in the initial raters' training session; the researcher considers the Overall rating the most stable indicator of interrater reliability. As indicated in Table 1, raters attained excellent interrater reliability at this global level (i.e., Overall rating) when both consensus and consistency

estimates of interrater reliability are analyzed (Barrett, 2001; Stemler, 2004). Specific domain scores shed light on how the various domains of the Trauma Play Scale contributed to the overall reliability of the scale. Both the percentage agreement estimates of interrater reliability and the correlational estimates of interrater reliability indicate a high level of agreement amongst the raters during this training session (Stemler, 2004; Barrett, 2001). This result indicates that the raters were able to achieve a high degree of consensus, or agreement, as to how the scale should be applied to particular play behaviors. In addition, the raters were able to maintain a high degree of consistency in their application of the scale over multiple ratings. This pattern held true when the ratings were analyzed at the global level (i.e., when all 45 ratings were included in the analysis) and at most domain levels (i.e., when only domain scores were included in the analysis).

Results in Table 1 indicate that the consensus measures of interrater reliability (percentage agreement estimates; Stemler, 2004) were well above the acceptable range. This result shows that raters attained a high degree of agreement as to how to apply the Trauma Play Scale to the videotaped play therapy segments presented in the initial raters' training session. The results in Table 1 suggest that raters had some difficulty identifying intense play and play disruptions consistently. On each of these domains, raters achieved correlational estimates of interrater reliability that were slightly below the acceptable range, as defined by Barrett (2001). This result indicates that the raters were somewhat inconsistent in their ratings on these domains; that is, their ratings may have varied in opposite directions at times. For example, rater one may have viewed a child's focused facial expression as an indication of intensity, whereas rater number two may have viewed the same facial expression as an indication of the child's determination to master a particular skill.

The fact that raters had a relatively difficult time identifying intense play is consistent with my view that intense play is difficult to judge based on videotaped data. That is; the raters involved in the study have in-vitro experience conducting play therapy, and most likely rely on intuitive processes to identify intensity during session. Many of the non-verbal cues related to intensity are obscured by the limited perspective provided by observing videotaped sessions versus participating in live sessions.

The raters' relative difficulty in identifying play disruptions is consistent with my view that play disruptions are difficult to capture, due to their discrete nature. That is, play disruptions are discrete events that occur quickly and may be hard to detect if one is distracted from observations for even a few seconds.

Interrater Reliability at Midpoint Raters' Training Session

The results reported in Table 2 indicate that raters achieved a high degree of interrater reliability during the midpoint raters' training session. The Overall rating (i.e., the rating that includes all data rated during this training session) would seem to be the most reliable estimate of interrater reliability. Data in Table 2 indicate that raters achieved an excellent degree of interrater reliability at this global level, according to both consensus and consistency estimates (Barrett, 2001; Stemler, 2004). Specific domain scores provide additional information pertaining to how the various domains of the Trauma Play Scale contributed to the overall reliability of the scale. Both the percentage agreement estimates of interrater reliability and the correlational estimates of interrater reliability indicate a high degree of interrater reliability. When analyzed using consensus measures of interrater reliability (i.e., percentage agreement estimates; Stemler, 2004), the raters achieved a degree of agreement that is well above the acceptable levels for interrater reliability on all domains of the Trauma Play Scale.

I analyzed the contributions of particular domains to the global level of interrater reliability achieved in this training session. The Avoidant Play Behavior domain appeared to be the most robust, in terms of interrater reliability, whereas the Intensity and Play Disruption domains appeared to prove more difficult for raters. This result is consistent with raters' relative difficulty in consistently applying these behavioral domains to the videotaped play therapy segments presented in the initial raters' training session. That is, raters continued to interpret potential instances of intense play or play disruptions somewhat differently during the midpoint raters' training session, as they did in the initial raters' training session. In general, the results from the midpoint raters' training session indicate that the raters maintained a high degree of interrater reliability through the three week period that intervened between the initial raters' training session and the midpoint raters' training session.

Intra-rater Reliability

Intra-rater reliability was evaluated through a process wherein each rater observed and rated one videotaped play therapy session on two different occasions. Raters were asked to complete an entire series of eight videotapes and, at the conclusion of this period, re-rate the third videotape in this series for the purpose of establishing intra-rater reliability. Raters reported that this re-rating session occurred a week and a half, on average, after the first videotape was rated. Correlational estimates were used to measure raters' consistency over time (Barrett, 2001). Table 3 provides a summary of the intra-rater reliability attained by each of the five raters involved in the pilot study. On average, the raters maintained a high degree of intra-rater reliability during the course of the pilot study. Rater #1 appeared to have the highest level of intra-rater reliability, whereas rater #5 appeared to have the lowest level of intra-rater reliability. On the whole, these results suggest that the raters were able to maintain a high degree of

consistency as they applied the Trauma Play Scale to the videotaped play therapy sessions included in the pilot study.

Reliability of the Trauma Play Scale

The pilot study provided me with a means through which to examine the psychometric properties of the current version of the Trauma Play Scale. All of the global level analyses related to interrater reliability and intra-rater reliability support the conclusion that the current version of the Trauma Play Scale appears to have a high degree of interrater and intra-rater reliability, as assessed by consensus and consistency reliability measures (Stemler, 2004; Barrett, 2001). This result indicates that with extensive training, objective raters may be trained to evaluate complex play behaviors in a consistent manner using the current version of the Trauma Play Scale.

Validity

The validity of the current version of the Trauma Play Scale was evaluated in several ways. First, my faculty mentor and I attempted to construct the Trauma Play Scale in a manner that enhanced the scale's construct validity, as described in chapter two of this document. Second, I conducted a survey of experts in the fields of play therapy and traumatology in order to evaluate the face validity of the measure. Third, pilot study data were analyzed statistically in order to examine the discriminant validity of the Trauma Play Scale.

Construct Validity

As outlined in chapter two of this document, my faculty mentor and I worked closely during the development of the current version of the Trauma Play Scale. We followed a carefully planned strategy for instrument development, as outlined by various experts in the field (Hill, 1991; Netemeyer, Bearden, & Sharma, 2001). In my judgment, every precaution was

taken to ensure that the current version of the Trauma Play Scale accurately represents the most salient aspects of the construct of posttraumatic play. This careful process of analysis and deliberation should support the overall construct validity of the current version of the Trauma Play Scale.

Face Validity

I surveyed a limited number of experts in the fields of play therapy and traumatology. The results presented in Table 4 indicate that, on average, the experts surveyed judged the current version of the Trauma Play Scale as having a high degree of face validity. The qualitative feedback that experts provided shed some light on the strengths and potential weaknesses of the current version of the Trauma Play Scale.

One common theme among the experts' feedback was their recognition of the complexity of the task of measuring the construct of posttraumatic play; all of the experts noted the difficulty of this task as well as the importance of the research.

Another common theme was that experts suggested parceling out various elements of the current version of the Trauma Play Scale. For instance, one expert felt that the negative affect scale could be expanded so that researchers would rate specific types of negative affect as they occurred, rather than a global rating of negative affect. Another expert felt that the intense play scale would be clarified if the element of joyful or spontaneous play were separated from this construct. Yet another expert was of the opinion that more attention should be focused on the quality of the relationship between the child and therapist.

One expert was particularly concerned about whether the Negative Affect and Intense Play domains would be indicative of a trauma history, exclusive of other presenting issues encountered in the practice of play therapy. This expert wondered whether a child who was

having an especially bad day, for instance, might exhibit similar behavior as a traumatized child. The expert agreed, however, that the behavioral anchors at the highest end of the scales (i.e., five on the five-point rating scale) did seem more indicative of posttraumatic play than the behavioral anchors at the lower end of the scales. It was the researcher's intention to include some behaviors in the lower end of the scales that were not specifically indicative of posttraumatic play, in order to allow the scale as a whole to detect differences between the two groups.

One particularly salient point, provided by a prominent expert in the field of traumatology, was that it is extremely difficult to train raters to recognize thematic repetition embedded within a play sequence. This comment is consistent with my observation that raters tended to struggle with consistently recognizing repetitive play during the rating process. Raters' feedback also support the idea that repetitive play is a highly complex construct that is difficult to measure.

Overall, the feedback provided by expert evaluators suggests that the current version of the Trauma Play Scale has a high degree of face validity. Experts tended to agree that the scale as a whole and its various subscales accurately reflected their understandings of the construct of posttraumatic play.

Discriminant Validity

The discriminant validity of the current version of the Trauma Play Scale was explored through statistical analysis of pilot study data. I used both oneway and repeated measures analysis of variance statistics during the data analysis phase. I computed effect size estimates in conjunction with statistical significance tests in order to provide the reader with a measure of the practical significance of the analyses; this is in accordance with the recommendations of the American Psychological Associations' Task Force on Statistical Inference (Henson & Smith,

2000). The goal of the pilot study was to determine whether children with a history of trauma had higher Trauma Play Scale scores, on average, than children with no known history of trauma. The Trauma Play Scale was designed as a measure of posttraumatic play occurring *over time*. The measure is composed of five domains which represent a cluster of play behaviors that were selected as representative of probable posttraumatic responses in children. The occurrence of this cluster of behaviors over time is believed to be indicative of posttraumatic reactions in children. The aggregate scores (i.e., series level and session level Average Trauma Play Scale scores) represent an index of the occurrence of this cluster of behaviors *over time*. Therefore, I view the results of the analyses of these aggregate scores as the most salient to the discussion of the discriminant validity of the Trauma Play Scale. The discriminant validity of the Trauma Play Scale is supported when group differences are apparent in the results of the Trauma Play Scale scores. Analysis of domain scores provided additional information related to how the individual domain scores contribute to the overall discriminant validity of the Trauma Play Scale.

Overview of Statistical Findings

Statistical analyses of pilot study data were conducted in order to determine the degree of known-group discriminant validity (Netemeyer, Bearden, & Sharma, 2003) inherent in the current version of the Trauma Play Scale. Data were analyzed at both the series level and the session level; series level data represent an average of a child participant's scores on a particular domain across all eight play therapy sessions observed as part of the pilot study. Session level data represent each child's average score on each domain within each of the eight play therapy sessions included in the pilot study. Oneway analysis of variance statistics were performed on the series level data, and repeated measures analysis of variance statistics on the session level data. The following paragraphs are an overview of the results of these statistical analyses.

Statistically significant results will be discussed first, followed by a presentation of noteworthy trends in the data. As noted above, noteworthy trends were defined as probability values that approached statistical significance (i.e., p values of .05 to .10). Effect size estimates will be reviewed in conjunction with these analyses. According to Trusty, Thompson, and Petrocelli (2004), effect size indices allow the researcher to assess the strength of the relationship between the independent and dependent variables. Effect size indices allow the researcher to uncover not only whether significant group differences exist, but also the magnitude of these group differences.

Statistically significant group differences were noted in two of the analyses performed with pilot study data. Series Level Average Trauma Play Scale Score, Omitting Repetitive Play (Table 8) and Session Level Average Trauma Play Scale Score, Omitting Repetitive Play (Table 22) both evidenced statistically significant group differences. My rationale for omitting repetitive play from these analyses is discussed in a later section within this chapter. These results indicate that children with a history of trauma had higher Series Level and Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play (Tables 8 and 22) than children with no known trauma history, and that this difference in scores was statistically significant. The Series Level Average Trauma Play Scale Score, Omitting Repetitive Play (Table 8) evidenced a very large effect size (Cohen, 1988), indicating that participants' trauma history status accounts for a large degree of the difference between the two groups. The analysis of Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play (Table 22) also produced a large effect size (Cohen, 1988), indicating that trauma history shares a strong relationship with children's scores on this measure. These group differences occurred in the anticipated direction; that is, children who had been previously identified as having a trauma history scored higher than

children who had been previously identified as having no known trauma history. This result lends support to the conclusion that the current version of the Trauma Play Scale may be described as having discriminant validity (as described by Netemeyer, Bearden, and Sharma, 2003).

Several analyses produced noteworthy trends in the data. Analyses of both the Series Level Average Trauma Play Scale scores (Table 6) and the Session Level Average Trauma Play Scale scores (Table 18) evidenced noteworthy trends (i.e., results that approached statistical significance). Effect sizes for these aggregate scores were large, indicating that the Average Trauma Play Scale scores share a strong relationship with participants' trauma history status. At the series level, the Intense Play, Avoidant Play, and Negative Affect domains (Tables 10, 16, & 18, respectively) provided evidence that children in the trauma history group did exhibit markedly different behaviors along these domains than children in the 'no known trauma history' group. Participants' trauma history status appeared to account for a large degree of the differences between the groups on each of these domains, according to Cohen's (1988) guidelines for interpreting effect sizes.

Additional noteworthy trends were uncovered when the pilot study data was analyzed at the session level. The Session Level Average Trauma Play Scale (Table 18) scores appeared to share a marked relationship with participants' trauma history status, according to effect size estimates (Cohen, 1988). Group membership was found to share a moderate relationship with participants' Session Level Intense Play (Table 24) scores. Finally, Session Level Avoidant Play Behavior (Table 30) scores and Session Level Negative Affect (Table 32) scores each shared strong relationships with participants' trauma history status. Although not statistically significant, each of these trends provides additional information related to the differences

between the play therapy behaviors of children with a history of trauma versus children with no known history of trauma. In each case, the group differences occurred in the anticipated direction; that is, children with a history of trauma consistently scored higher than children with no known history of trauma on measures intended to assess the presence of posttraumatic play behaviors. This result supports the conclusion that the current version of the Trauma Play Scale possesses an adequate degree of discriminant validity (as described by Netemeyer, Bearden, and Sharma, 2003).

The Repetitive Play domain of the Trauma Play Scale is the only domain score that did not produce statistically significant group differences, noteworthy trends, or a noteworthy effect size during the analysis of pilot study data. The Repetitive Play domain did not appear to detect differences between the play behaviors of traumatized versus non-traumatized children.

On the whole, the statistical analyses conducted with pilot study data support the conclusion that children with a history of trauma exhibited higher levels of play behaviors indicative of posttraumatic responses than did children with no known history of trauma. In particular, results from analyses of the aggregate scores (i.e., the Average Trauma Play Scale Scores and the Average Trauma Play Scale Scores, Omitting Repetitive Play) indicated that group differences were detected when the domains of the Trauma Play Scale were examined as a whole. As noted above, I view the aggregate scores as the most salient results of the pilot study because these scores reflect the researcher's belief that the cluster of play behaviors measured by the five domains of the Trauma Play Scale, taken together and over time, are indicative of posttraumatic responses in children. The various domains of the Trauma Play Scale appeared to vary in the degree to which they discriminated amongst the two groups. Following is a list of the Trauma Play Scale domains in order of most discriminating to least discriminating: Intense Play,

Avoidant Play Behavior, Negative Affect, Play Disruption, and Repetitive Play. These results support the conclusion that the current version of the Trauma Play Scale may be described as having a high degree of discriminant validity (Netemeyer, Bearden, & Sharma, 2003).

Rationale for Post-Hoc Analyses Omitting Repetitive Play

I chose to conduct a post-hoc analysis examining the Average Trauma Play Scale Score without the influence of the Repetitive Play Domain. I made this choice for several reasons. First, during the course of the pilot study, it became clear that the Repetitive Play domain presented a particular challenge to several raters. Verbal and written feedback from raters indicated that the construct was extremely challenging to measure in a concrete and consistent fashion. Second, the construct of repetitive play is quite complex and difficult to measure. The complexity of this construct becomes clear when one considers the various types of repetitive play that may occur within one play therapy session. For instance, a child may begin a play sequence that carries into the next five-minute rating period; this play is considered sustained play, rather than repetitive play. However, if the child took a break from this play sequence and later returned to the play sequence, the play would then be considered repetitive play, rather than sustained play. If this play sequence continued into the following five-minute rating period, the play would then be considered sustained repetitive play. Further distinctions developed delineating between-session repetitive play (play sequences that recur from a previous session) and within-session repetitive play (play sequences that recur from earlier in the same session). Third, I noticed an apparent ‘rater drift’ bias as the raters applied the repetitive play scale to data during the pilot study. Heppner, Kivlighan, and Wampold (1999, p. 411) explain rater drift as a systematic change in raters’ understanding or interpretation of a particular domain within a scale. It was my intention that repetitive play include only play that appeared to have symbolic

meaning to the child (this would exclude purely exploratory or developmental mastery play); however, based on some raters' comments, the definition of repetitive play was expanded to include play that did not appear to have symbolic meaning to the child. For example, one child involved in the study consistently engaged in craft activities (i.e., cutting and pasting materials such as construction paper, popsicle sticks, pipe cleaners, etc.) throughout several sessions within the series that was rated for this study. The rater felt that this play sequence was meaningful for the child, especially as a form of self-soothing. The child was given the highest marks for repetitive play across several sessions. However, I had attempted to exclude such play sequences from being rated as repetitive play, due to the apparent lack of symbolic meaning inherent in these activities. Thus, differences in the interpretation of the term meaningful play lead to differences in our understandings of the concept of repetitive play.

For these reasons, I opted to conduct an analysis of the Average Trauma Play Scale scores (series level and session level) omitting the Repetitive Play domain. Specifically, I conducted a oneway ANOVA on the Series Level Average Trauma Play Scale Scores, omitting repetitive play, as well as a repeated measures ANOVA on the Session Level Average Trauma Play Scale Scores, omitting repetitive play. The Average Trauma Play Scale scores are the only scores that are affected by the omission of one of the domain scores.

Group Differences According to Aggregate Scores

Average trauma play scale scores. As indicated in the data in Tables 5 and 6, children in the trauma history group exhibited higher Series Level Average Trauma Play Scale Scores, on average, than did children in the no known trauma history group. The Series Level Average Trauma Play Scale score is an average of each child's Average Trauma Play Scale scores, per session. This score reflects the child's ratings across all five domains of the Trauma Play Scale,

over the entire eight-session series of videotaped play therapy sessions. Although the difference between the groups was not statistically significant at the .05 level, the difference approached statistical significance ($p=.08$). This result indicates a noteworthy trend in the data; that is, children with a history of trauma do appear to exhibit higher levels of play behaviors believed to be indicative of trauma, as measured by the Series Level Average Trauma Play Scale Score, than children with no known history of trauma. Potential limitations to finding statistical significance are discussed in detail below.

Effect size estimates indicated that group membership shares a strong relationship with Series Level Average Trauma Play Scale Scores ($\eta^2=.27$; a large effect). This result suggests that participants' trauma history status accounted for a large degree of the difference between the two groups, as measured by the Series Level Average Trauma Play Scale Scores. In addition, this result suggests that the difference between the two groups was consistent over time, as this series level score encompasses scores from all eight sessions.

As indicated by the data in Tables 19 and 20 and Figure 1, children in the trauma history group exhibited higher Session Level Average Trauma Play Scale Scores, on average, than children in the no known trauma history group. The difference between the groups was not statistically significant at the .05 level. Calculations of effect size indicate that group membership shares a strong relationship with the Session Level Average Trauma Play Scale Score ($\eta^2=.19$; a large effect). This result indicates that participants' trauma history status had a strong impact on their Session Level Average Trauma Play Scale Scores. The interaction effect (between group membership and time) was also not statistically significant. This result indicates that the two groups exhibited similar change patterns over time. This similarity may be observed in Figure 1. It is interesting to note, however, that the two groups' Average Trauma Play Scale

scores diverge rather sharply in the two final observation sessions (Figure 1). Children with a history of trauma appear to exhibit increasingly higher Average Trauma Play Scale scores towards the end of the series of observations, whereas children with no known history of trauma appear to exhibit increasingly lower Average Trauma Play Scale scores. This divergent pattern is consistent with the literature related to posttraumatic play, which suggests that children with a history of trauma tend to exhibit a cyclical pattern in their play. That is, children with a history of trauma are believed to touch on traumatic material for a time and then back away, returning to the traumatic material at a later point (Cockle & Allan, 1996). A longer observation period would allow one to detect possible cyclical patterns of posttraumatic play.

The high degree of practical significance detected in these analyses indicates that these aggregate scores are highly sensitive to the differences in the play behaviors of children with a history of trauma versus children with no known history of trauma. As noted by Henson and Smith (2000), effect size estimates provide a measure of the magnitude of the differences between groups. The large difference detected in the two groups' aggregate scores are consistent with my intentions in designing the Trauma Play Scale; that is, the cluster of play behaviors measured by the particular domains of the Trauma Play Scale, taken together over time, were intended to differentiate between the two groups. These results suggest that differences between traumatized and non-traumatized children may be detected through the use of the Trauma Play Scale, and that these differences are consistent with the literature related to the concept of posttraumatic play as outlined by experts in the field of traumatology (Terr, 1990; see also Gil, 1991; James, 1994). Children with a history of trauma do tend to exhibit higher levels of intense play, repetitive play, play disruptions, avoidant play behavior, and negative affect than children with no known history of trauma. It appears that the five domains of the Trauma Play Scale,

taken together, have more discriminant power than any of the domains in isolation. This view is consistent with the literature related to posttraumatic play that suggests that posttraumatic play is a qualitatively different form of play than healthy play, and that the qualitative difference may be detected through a cluster of specific play behaviors (Terr, 1983/1990/1991; James, 1994; Gil, 1991). These results support to the conclusion that the Trauma Play Scale has discriminant validity, specifically, known-group validity as defined in chapter two of this document (Netemeyer, Bearden, & Sharma, 2003, p. 80).

Average trauma play scale scores, omitting repetitive play. As indicated by the data in Tables 7 and 8, children in the trauma history group exhibited higher Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play, on average, than children in the no known trauma history group. The difference between the two groups was statistically significant at the .05 level ($p=.02$). The Series Level Average Trauma Play Scale Score, Omitting Repetitive Play, is an average of each child's Average Trauma Play Scale Scores, omitting repetitive play, across the entire eight-session series of videotaped play therapy sessions. Effect size indices suggest that group membership shares a strong relationship with the Series Level Average Trauma Play Scale Score, Omitting Repetitive Play ($\eta^2=.41$; a large effect). This result indicates that children who had been previously identified as having a history of trauma were observed to have higher Series Level Average Trauma Play Scale Scores, Omitting Repetitive Play, than children who had been previously identified as having no known history of trauma. In addition, this result suggests that the two groups differed consistently over time, as the Series Level Average Trauma Play Scale Score, Omitting Repetitive Play encompasses scores from all eight sessions. As indicated in Tables 21 and 22 and Figure 2, children with a history of trauma exhibited higher Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play, on average, than

children with no known history of trauma. The difference between the groups was statistically significant at the .05 level ($p=.02$). Effect size indices suggest that group membership shares a strong relationship with the Session Level Average Trauma Play Scale Scores, Omitting Repetitive Play ($\eta^2=.29$; a large effect). The interaction between group membership and time was not statistically significant at the .05 level. This result indicates that the two groups had similar change patterns over time. This similarity may be observed in Figure 2. However, one may observe a divergent pattern in these scores, similar to that observed in Figure 1. Towards the end of the observation period (i.e., in later play therapy sessions), the traumatized children exhibited increasingly higher Average Trauma Play Scale Scores, Omitting Repetitive Play, than children with no known history of trauma. The divide between the two groups begins even earlier on this aggregate score than on the Average Trauma Play Scale scores (Figure 1); that is, the pattern may be observed over the final three observation sessions rather than the final two observation sessions. This result suggests that traumatized children show an increase in posttraumatic play as they continue to engage in play therapy. This is consistent with clinicians' assertions that traumatized children display a sort of approach-avoidance pattern during the process of play therapy; that is, these children seem to alternately approach painful material and avoid painful material as the therapy progresses (Cockle & Allan, 1996; James, 1994).

These results indicate that when the Repetitive Play domain is omitted from the analysis, the Trauma Play Scale is able to detect differences between the play behaviors of children with a history of trauma and children with no known history of trauma. The omission of the Repetitive Play domain greatly increased the discriminative power of the Average Trauma Play Scale score, at both the series level and the session level. The effect size estimates obtained in these analyses are quite large; this result indicates that the cluster of play behaviors represented by the Intense

Play, Play Disruption, Avoidant Play Behavior, and Negative Affect domains, considered together over time, are extremely powerful in discriminating between the two groups of interest, traumatized and non-traumatized children. These results add credence to the claim that the Trauma Play Scale has discriminant validity, as defined by Netemeyer, Bearden, and Sharma, 2003.

Although repetitive play is hypothesized to be a distinctive characteristic of the play behaviors of traumatized children (Terr, 1983; see also Eth, 2001; Schaefer, 1983), the current pilot study failed to detect higher levels of repetitive play in children with a history of trauma in comparison to children with no known history of trauma. Several possible explanations exist for this finding. As noted above, it is possible that the two groups are not, in fact, different along this dimension of play therapy behaviors. The possibility that non-traumatized children engage in repetitive play to the same degree as traumatized children seems plausible. However, my observation that the construct of repetitive play was particularly difficult to operationalize makes this conclusion somewhat dubious. Raters' feedback that the repetitive play domain was extremely difficult to rate in a consistent manner underscores my doubt that the results of the repetitive play measures are valid in this particular pilot study. The use of the Average Trauma Play Scale Score without repetitive play represents a compromise; that is, the aggregate score may be retained while omitting the specific domain that appears to weaken the scale as a whole. This modified aggregate score appears to have a high degree of discriminant validity.

Group Differences According to Domain Scores

Intense play domain scores. The Series Level Intense Play Domain Scores presented in Tables 9 and 10 reveal that children in the trauma history group exhibited higher Intense Play Domain Scores, on average, than did children in the no known trauma history group. The Series

Level Intense Play Domain Score is an average of each child's Intense Play domain scores across the entire eight-session series of videotaped play therapy sessions. Although the difference between the groups was not statistically significant at the .05 level, the difference approached statistical significance ($p=.06$) and indicates a noteworthy trend in the data. Calculations of effect size indicated that group membership shares a strong relationship with the Series Level Intense Play Domain scores ($\eta^2=.30$; a large effect). That is, whether or not a child participant had a reported trauma history was strongly associated with the child's Series Level Intense Play Domain scores. The Session Level Intense Play Domain Scores presented in Tables 23 and 24 and Figure 3 indicate that children in the trauma history group exhibited higher Session Level Intense Play Domain Scores, on average, than children in the no known trauma history group. The difference between the two groups was not statistically significant at the .05 level, although the difference approached statistical significance ($p=.06$). Effect size indices suggested that group membership shares a moderate relationship with the Session Level Intense Play Domain Score ($\eta^2=.13$; a medium effect). The interaction between group membership and time was statistically significant at the .05 level ($p=.03$). This result indicates that the two groups' change patterns, as measured by Session Level Intense Play Domain Scores, were quite dissimilar. The different change patterns among the two groups may be observed in Figure 3. Of particular interest is the fact that the two groups' scores on the Intense Play Domain diverge rather dramatically in later observation periods. Children with a history of trauma exhibited increasingly higher levels of intensity in their play as therapy progressed, whereas children with no known history of trauma exhibited lower levels of intensity as therapy progressed. The fact that this interaction effect was statistically significant lends credence to the claim that traumatized children do indeed experience a more complicated change process than children with

no known history of trauma (Cockle & Allan, 1996; James, 1994). The complexity of traumatized children's change processes supports the claim that traumatized children may require long-term therapy (Cockle & Allan, 1996; Gil, 1991; James, 1994; Terr, 2003).

The large and moderate effect sizes obtained through these analyses indicate that intense play (at both the series and session level) shares a noteworthy relationship with participants' trauma history status. These results indicate that children who had been previously identified as having a history of trauma were observed to have higher Intense Play Domain Scores than children who had been previously identified as having no known history of trauma. This result is consistent with literature that links intensity with the phenomenon of posttraumatic play (Terr, 1983; see also James, 1989; Nader & Pynoos, 1991). One possible implication of this result is that the intensity of the traumatized child's play suggests that the play is highly meaningful or significant to the child. That traumatized children scored higher on this measure of intense play is not surprising, given the strong theoretical basis for including a measure of intense play as a form of play behavior that is indicative of posttraumatic reactions in children (Terr, 1983; see also James, 1989; Nader & Pynoos, 1991). In addition, this result suggests that the two groups differed consistently over time, as the Series Level Intense Play Domain score encompasses scores from all eight sessions. It seems intuitively clear that many children who are not in the throes of a posttraumatic response would occasionally exhibit intense play as they engage in play therapy; however, I had anticipated that group differences along this domain would become evident over time. These results suggest that the Intense Play domain adds to the discriminant power of the Trauma Play Scale as a whole.

Repetitive play domain scores. As indicated in the data in Tables 11 and 12, children in the trauma history group had only slightly higher Series Level Repetitive Play Domain Scores

than children in the no known trauma history group. The difference between the groups on this domain was minimal. As indicated in Tables 25 and 26 and Figure 4, children in the trauma history group exhibited slightly higher Session Level Repetitive Play Domain Scores, on average, than children in the no known trauma history group. The difference between the two groups was not statistically significant at the .05 level. Effect size indices suggest that group membership shares a weak relationship with the Session Level Repetitive Play Domain Score ($\eta^2=0.0021$; a very small effect). The data were analyzed without regard to group membership; Session Level Repetitive Play Domain Scores were strongly affected by time. This variable was statistically significant at the .05 level ($p=.02$). That is, the passage of time had a noteworthy effect on participants' Session Level Repetitive Play Domain scores, regardless of their trauma history status. One may observe in Figure 4 that children in both groups tended to increase their levels of repetitive play with subsequent sessions. This pattern may be somewhat misleading, however, due to the nature of rating repetitive play. Raters were essentially unable to rate repetitive play during the first session (for either group) because they had no prior history upon which to base their ratings. Therefore, the significant session (or time) effect observed in this analysis should be interpreted with caution. The interaction between group membership and time was not statistically significant at the .05 level. This result indicates that the two groups had similar change patterns over time. That is, group membership did not appear to influence the trajectory of repetitive play that was observed among child participants. This similarity may be observed in Figure 4. Traumatized children and non-traumatized children appear to exhibit similar repetitive play behaviors as they engage in the process of play therapy. This result is not consistent with the literature on posttraumatic play; theorists have generally claimed that traumatized children exhibit higher levels of repetitive play than non-traumatized children

(James, 1994; Terr, 1983). One possible explanation for the fact that the expert clinicians' hypotheses are at odds with the data presented in this study is that the clinicians generally have knowledge of their clients' trauma history status at the onset of therapy. This knowledge may allow clinicians to detect repetitive play themes, especially play that has a literal quality, which the raters were unable to uncover. Another possible explanation for this result is that traumatized children's process of assimilating traumatic experiences may be similar to how all children assimilate transitions in life. That is, repetitive play may be the vehicle through which all children develop a sense of competence and mastery over their experiences, whether the content of the play is centered on the ordinary challenges of life or is traumatic in nature. Yet another explanation for the similarity between the two groups' repetitive play scores is that traumatized children may be secretive about repetitive play. Terr (1983) argued that therapists are rarely able to observe this phenomenon; she hypothesized that a child may avoid playing out repetitive play sequences in the presence of the therapist due to the child's need to control the environment within which this type of play emerges. The implication is that repetitive play is an elusive construct that should be examined more thoroughly.

As noted above, I received feedback from several raters that the Repetitive Play Domain was quite difficult to rate due to the complexity of the construct. Therefore, this result is ambiguous; it seems that either the two groups did not differ in their levels of repetitive play, or, the raters were unable to adequately capture repetitive play as it occurred within the sessions observed. One factor that may have contributed to raters' reported difficulty in measuring repetitive play is the fact that raters were unaware of each child's trauma history status throughout the rating period. The literature related to the repetitive nature of posttraumatic play indicates that children with a history of trauma often engage in repetitive play that is literal in

nature. That is, traumatized children are believed to engage in reenactments (repetitive play) that mirror the traumatic events they have experienced in a literal, concrete manner (Terr, 1983; see also Eth, 2001; Schaefer, 1994). The fact that raters were kept unaware of child participants' trauma history status may have resulted in raters' inability to identify potentially meaningful repetitive play. At this time, the Repetitive Play domain appears to detract from the discriminant validity of the Trauma Play Scale as a whole (Netemeyer, Bearden, & Sharma, 2003).

Play disruption domain scores. The Series Level Play Disruption Domain Scores presented in Tables 13 and 14 indicate that children in the trauma history group exhibited higher Play Disruption Domain scores, on average, than did children in the no known trauma history group. The Series Level Play Disruption Domain Score is an average of each child's Play Disruption domain scores across the entire eight-session series of videotaped play therapy sessions. Effect size indices suggest that group membership shares a strong relationship with the Series Level Play Disruption Domain Score ($\eta^2=.19$; a large effect). Data presented in Tables 27 and 28 and Figure 5 indicate that children with a history of trauma exhibited higher Session Level Play Disruption Domain Scores, on average, than children with no known trauma history. The difference between the groups was not statistically significant at the .05 level. Effect size estimates suggest that group membership shares a moderate relationship with the Session Level Play Disruption Score ($\eta^2=.13$; a medium effect). The interaction between group membership and time was also not statistically significant at the .05 level. This result suggests that the two groups had similar change patterns over time. This similarity may be observed in Figure 5. This result indicates that children who had been previously identified as having a history of trauma were observed to have higher Play Disruption Domain Scores than children who had been previously identified as having no known history of trauma. In addition, this result suggests that

the two groups differed consistently over time, as the Session Level Play Disruption Domain score encompasses scores from all eight sessions. One may conclude that children with a history of trauma exhibited either more frequent or more intense play disruptions than children with no known history of trauma. The strong and moderate effect sizes (for the series and session level Play Disruption Domain scores, respectively) indicate that group membership shares a noteworthy relationship with the incidence of play disruptions observed among child participants in the pilot study. According to Thompson, Trusty, and Petrocelli (2004), researchers may interpret effect size results within the context of the particular research environment in which they operate. The effect size indices obtained in these analyses may be interpreted as providing strong evidence that the Play Disruption domain adds to the overall discriminant validity of the Trauma Play Scale. The effect size reported for the Session Level Play Disruption Domain scores was very close to the 'large' effect size range (i.e., the obtained effect size of .13 is just .01 under the benchmark for large effect sizes (.14)). Also, in light of the fact that play disruptions often represent quick and subtle changes in a child's play behaviors, it is remarkable that objective raters were able to detect differences between the two groups on this domain.

According to experts in the fields of play therapy and traumatology, play disruptions may be considered an indication of a child's high level of anxiety (Erickson, 1963; James, 1994; Schaefer, 1994). The play disruption domain of the current version of the Trauma Play Scale was designed to detect behaviors that ranged from the absence of play disruptions to the presence of intense play disruptions. One may conclude that child participants in the pilot study who had been previously identified as having a history of trauma experienced a higher degree of anxiety than child participants who had been previously identified as having no known history of trauma. Another possible implication is that play disruptions may indicate a child's difficulty in

integrating traumatic material. These results are consistent with the literature related to the construct of posttraumatic play (Erikson, 1963; James, 1994; Schaefer, 1994). These results support the assertion that the Play Disruption domain contributes positively to the discriminant validity of the Trauma Play Scale as a whole, as defined by Netemeyer, Bearden, and Sharma, 2003.

Avoidant play behavior domain scores. As indicated by the data in Tables 15 and 16, children in the trauma history group exhibited higher scores on the Series Level Avoidant Play Behavior Domain Scores than did children in the no known trauma history group. However, the group difference was not statistically significant at the .05 level. Calculations of effect size indicated that group membership shares a strong relationship with the Series Level Avoidant Play Domain Score ($\eta^2=.25$; a large effect). This result indicates that children who had been previously identified as having a history of trauma were observed to have higher levels of avoidant play behavior than children who had been previously identified as having no known history of trauma. In addition, this result suggests that the two groups differed consistently over time, as the Series Level Avoidant Play Behavior Domain score encompasses scores from all eight sessions. Data presented in Tables 29 and 30 and Figure 6 indicate that children with a history of trauma exhibited higher Session Level Avoidant Play Behavior Domain Scores, on average, than children with no known history of trauma. The difference between the groups was not statistically significant at the .05 level. Calculations of effect size suggest that group membership shares a strong relationship with Session Level Avoidant Play Behavior scores ($\eta^2=.18$; a large effect). The interaction between group membership and time was also not statistically significant at the .05 level. This result indicates that the two groups had similar change patterns over time. This similarity may be observed in Figure 6. Towards the end of the

observation period, however, the two groups Avoidant Play Domain scores begin to diverge. Whereas children with no known history of trauma have a virtual absence of avoidant play behaviors in the final four observation sessions, children with a history of trauma appear to exhibit an upward trend in avoidant play in the later observation sessions. This result is consistent with anecdotal literature that suggests that traumatized children tend to avoid intimacy and have difficulty trusting others in general (James, 1994; Mills & Allan, 1992). Observations of long-term therapy would uncover potential patterns in the avoidant play behaviors of traumatized children.

The large effect size estimates obtained in analyses of both the series level and session level Avoidant Play Behavior scores suggest that there is a strong relationship between children's early experiences of trauma and their later avoidant behaviors, as evidenced within an ongoing relationship with a play therapist. The literature related to the play behaviors of traumatized children suggests that avoidant play behaviors indicate a lack of trust between child and therapist, and that this particular relational difficulty may suggest broader attachment problems for the child (James, 1994; Mills & Allan, 1992). I chose to include only children with a history of interpersonal trauma in the trauma history group in order to limit potential confounding variables. Although the nature of each child's interpersonal trauma is unique, it appears that the homogeneity of this group contributed to the finding that participants' trauma history status shares a strong relationship with measures of avoidant play behavior included in the current version of the Trauma Play Scale. This result provides evidence for the phenomenon of posttraumatic play as described by (Terr, 1983; see also James, 1989; Nader & Pynoos, 1991). One implication of this result is that traumatized children may struggle with avoidant behaviors in multiple relationships. Avoidant behaviors may be related to pervasive difficulties in

interpersonal relationships as well as relationship problems in later life. The fact that traumatized children appear to have difficulty using an adult as a source of comfort may also be a sign of a more global pattern of poor coping. Therefore, clinicians should be aware of avoidant play behavior as an indicator of posttraumatic reactions in young children. Overall, the results of these analyses support the conclusion that the Avoidant Play Behavior Domain has a strong positive impact on the discriminant power of the Trauma Play Scale as a whole (as outlined by Netemeyer, Bearden, and Sharma, 2003).

Negative affect domain scores. Data presented in Tables 17 and 18 indicate that children in the trauma history group exhibited higher scores on the Series Level Negative Affect Domain, on average, than did children in the no known trauma history group. However, the group difference was not statistically significant at the .05 level. The Series Level Negative Affect Domain Score is an average of each child's Negative Affect domain scores across the entire eight-session series of videotaped play therapy sessions. Effect size indices suggest that group membership shares a strong relationship with the Series Level Negative Affect Domain Score ($\eta^2=.25$; a large effect). Data presented in Tables 31 and 32 and Figure 7 indicate that children with a history of trauma exhibited higher Session Level Negative Affect Domain Scores, on average, than children with no known history of trauma. The difference between the two groups was not statistically significant at the .05 level. Effect size indices suggest that group membership shares a strong relationship with Session Level Negative Affect Domain Scores ($\eta^2=.14$; a large effect). The interaction between group membership and time was also not statistically significant at the .05 level. This result indicates that the two groups had similar change patterns over time. This similarity may be observed in Figure 7. However, it is interesting to note the marked differences in the two groups' Negative Affect Domain scores

towards the end of the series of observations in this study. As indicated in Figure 7, children with a history of trauma maintained a rather high level of negative affect throughout all eight therapy sessions, whereas children with no known history of trauma reached a peak level of negative affect around observation number four (which was on average, session number eight for the children in this study) and then showed a steady decline in negative affect as the series progressed. The fact that traumatized children appear to exhibit higher levels of negative affect than non-traumatized children is consistent with the literature and lends support to the construct of posttraumatic play (Terr, 1983; see also James, 1989; Nader & Pynoos, 1991). It seems that external signs of negative affect indicate that traumatized children experience emotional distress as they engage in play therapy; one would expect that distressful feelings would surface as children struggle to integrate traumatic events into their life stories. This result supports the notion that children with a history of trauma tend to experience more distressful feelings over an extended period of time than their non-traumatized peers.

Effect size indices obtained through these analyses indicate that the Negative Affect Domain Scores (at both the series and session levels) share a strong relationship with child participants' trauma history status. The two groups varied in the predicted direction; that is, children with a history of trauma displayed higher levels of negative affect than children with no known history of trauma. Effect size estimates provide a means of measuring the magnitude of the differences between two groups on a particular variable (Henson & Smith, 2000). These results indicate that a large degree of the differences between the two groups on the Negative Affect Domain Scores is attributable to participants' trauma history status.

These results indicate that children who had been previously identified as having a history of trauma were observed to have higher Negative Affect Domain Scores than children

who had been previously identified as having no known history of trauma. In addition, this result suggests that the two groups differed consistently over time, as the Series Level Negative Affect Domain score encompasses scores from all eight sessions. The operational definition of negative affect included a broad range of generally negative or painful feeling states, such as sadness, flat affect, anger, frustration, etc. This definition was derived from the writings of several authors in the field of play therapy (Terr, 1983; see also James, 1994; Pynoos, 2001; Schaefer, 1994) as well as the intuitive assumption that children experiencing posttraumatic reactions tend to experience higher degrees of emotional distress than children who have not experienced traumatic events. One may conclude that children in the trauma history group were generally less content or happy than children in the no known trauma history group. This result supports the conclusion that the Negative Affect domain supports the overall discriminant validity of the Trauma Play Scale, as defined by Netemeyer, Bearden, and Sharma (2003).

*Comparison of Series Level Average Trauma Play Scale Scores With and Without
Repetitive Play Domain*

As noted above, the Repetitive Play Domain was an elusive construct and proved difficult to rate for several of the raters. Therefore, I conducted analyses omitting the Repetitive Play Domain from the calculation of the Series Level Average Trauma Play Scale Scores. One may refer to Tables 5 and 6 and Tables 7 and 8 to observe the differences between these two analyses. When the Series Level Average Trauma Play Scale Scores are calculated using all five domains of the Trauma Play Scale, the difference between the two groups is not significant at the .05 level ($p=.08$). However, when the Series Level Average Trauma Play Scale Scores are calculated using only four of the Trauma Play Scale domains (i.e., Intense Play, Play Disruption, Avoidant Play Behavior, and Negative Affect), the difference between the two groups is statistically

significant at the .05 level ($p=.02$). Clearly, retaining or omitting the Repetitive Play Domain scores makes a tremendous difference in the results of these analyses.

Effect size indices are also strongly impacted by the omission of the Repetitive Play Domain scores. Although the Series Level Average Trauma Play Scale Score shares a strong relationship with participants' trauma history status, the Series Level Average Trauma Play Scale Score, Omitting Repetitive Play shares an even stronger relationship with participants' trauma history status. The Series Level Average Trauma Play Scale Score (with Repetitive Play) has an effect size of 27% ($\eta^2=.27$; a large effect) whereas the Series Level Average Trauma Play Scale Score, Omitting Repetitive Play has an effect size of 41% ($\eta^2=.41$; a large effect). This represents a 14% increase in the amount of variability (in Average Trauma Play Scale Scores) that may be attributed to group differences. Although group membership has a strong relationship with the Average Trauma Play Scale Scores (with Repetitive Play), group membership has an even stronger relationship with the Average Trauma Play Scale Scores, Omitting Repetitive Play. One may conclude that the discriminant validity of the Trauma Play Scale as a whole is enhanced when the Repetitive Play Domain scores are omitted.

This result is surprising in light of the extensive literature that supports the claim that repetitive play is characteristic of the play behaviors of traumatized children (Terr, 1983; see also Eth, 2001; James, 1994; McClean-Russell, 1994; Schaefer, 1994). Indeed, repetitive play is widely considered such an integral part of the profile of traumatized children that it is included as one of the diagnostic criteria for Post-Traumatic Stress Disorder in children (APA, 1994). Prominent experts in the field of traumatology have built a strong theoretical explanation of the purpose of posttraumatic play in the lives of young children. That is, posttraumatic play is believed to facilitate the abreaction of painful psychic material, which allows the child to process

traumatic events (Terr, 1983; see also Hermann, 1992). As noted above, my observations as well as raters' reports indicate that the repetitive play domain of the current version of the Trauma Play Scale was extremely difficult to apply in a consistent manner. Therefore, one may conclude that the pilot study results of the repetitive play scale should be interpreted with caution, and that the repetitive play domain of the Trauma Play Scale should undergo extensive clarification and revision.

Limitations

Although some significant findings were revealed in this study, several limitations inherent in the design and implementation of this project have been identified.

Small Sample Size

Due to the small number of participants involved in the pilot study (trauma history group $n=6$; no known trauma history group $n=6$), the power of statistical analyses was diminished. For example, the power for the session x group interaction effect on the Average Trauma Play Scale Score variable (using repeated measures ANOVA) was .323. This indicates that there was only a 32% chance of finding significance if it were present. According to Heppner, Kivlighan and Wampold (1999, p. 328), a power level of .80 is desirable. A .80 level of power indicates that there is a 20% chance that statistically significant results would be overlooked when the results actually do exist. Statistical power of the analyses used in the current study would be greatly enhanced by a larger sample size.

Lack of a Well-Adjusted Comparison Group

Participants in both the trauma history group and the no known trauma history group were selected from a clinical population; all children involved in the pilot study had been referred to therapy (by either parents or teachers) due to adults' concerns about their emotional

development or behavior problems. It seems likely that had a non-clinical comparison group been available, the Trauma Play Scale may have detected even stronger differences in their play behaviors and the play behaviors of traumatized children.

Limited Observation Period

On the whole, it was not possible to identify unique change patterns among child participants in the trauma history group and the no known trauma history group. It seems likely that unique change patterns may have been detected, had the observations spanned a longer time period. A span of eight sessions appears to provide some meaningful information, yet a longer observation period would seem to provide more information related to the processes of change for each group. According to recent meta-analytic studies, optimal change occurs after children have participated in 30 play therapy sessions; this assertion underscores the importance of longer-term research into the change patterns of children with a history of trauma in comparison to children with no known history of trauma (Bratton, Ray, Rhine, & Jones, 2003; LeBlanc, 1988).

Lack of Comparative Data

Consistent alternative measures of participants' emotional status or behavioral patterns outside of the context of play therapy were unavailable during this study. Broad measures of children's attitudes and behavior, such as the Child Behavior Checklist (Achenbach & Edelbrock, 1986) or the Joseph Pre-School and Primary Self-Concept screening test (Joseph, 1979), would have provided additional information that could have been used to examine the convergent validity of the current version of the Trauma Play Scale (Gall, Borg, & Gall, 1996; Netemeyer, Bearden, & Sharma, 2003). Convergent validity may be understood as the convergence of separate measures around a particular construct; thus, if I had been able to show

that the Trauma Play Scale results correlated with the results of scales that measure distinct but related attitudes and behaviors in children, the scale could be described as having convergent validity. Measures of posttraumatic responses in children, such as the Child Posttraumatic Stress Reaction Index (CPTS-RI; Frederick, 1985; Frederick et al. 1992) or the Trauma Symptom Checklist for Children (TSCC; Briere, 1996) would provide particularly relevant alternative sources of information regarding the emotional and behavioral responses of traumatized children.

Repetitive Play Domain Ambiguous

During the rating phase of the pilot study, it became clear that several of the raters had difficulty rating repetitive play in a clear and consistent manner. Although I attempted to clarify this domain in both the written Trauma Play Scale User's Guide (Appendix C) and through verbal clarification, raters reported that they were unable to rate repetitive play with confidence. The complexity of this phenomenon has been acknowledged by several authors in the field of play therapy (Terr, 1983; see also James, 1994; Schaefer, 1994). It seemed as though the construct became ever more complex as raters applied the Trauma Play Scale to a variety of children's behaviors within the context of an ongoing relationship with a play therapist.

Implications

This discussion will first explore the implications of the study as a whole, within the context of research and theory relevant to the impact of trauma on young children. I will then explore possible uses of the Trauma Play Scale in a variety of applied settings. Finally, specific recommendations for future researchers will be provided.

Terr's (1983) theory and research related to the construct of posttraumatic play has assumed a pivotal role in the professional dialogue related to the needs of traumatized children. Although the current study was not designed to test Terr's (1983) hypotheses, per se, the results

of the pilot study conducted within the current study appear to support her claims related to the play behaviors of traumatized children. The Trauma Play Scale was designed to detect the presence of posttraumatic play as children engaged in the process of play therapy. The results of the pilot study indicate that the play behaviors of traumatized children do 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. In particular, the Trauma Play Scale detected higher levels of intense play, play disruptions, avoidant play behavior, and negative affect in the play behaviors of traumatized children. Slightly higher levels of repetitive play were also detected in the play of traumatized children however, this difference was negligible. My intention in designing the scale was that the scale should detect differences in the play behaviors of traumatized children when the cluster of play behaviors was taken together, over time. Although the individual domains of the Trauma Play Scale appear to have varying degrees of discriminant validity, they are not designed to be used as stand-alone measures. The presence of posttraumatic play is not adequately assessed through the use of domains in isolation. Overall, the data lend strong support to Terr's (1983) hypotheses; it appears that traumatized children do exhibit posttraumatic play within the context of an ongoing relationship with a play therapist. The current study appears to be unique in that no other study has empirically validated the presence of posttraumatic play in traumatized children as they engage in play therapy.

This study has made a beginning in demonstrating the reliability and validity of the current version of the Trauma Play Scale. Additional reliability and validity studies would provide valuable information for future researchers. Results from the interrater reliability trials were quite promising; it appears that with time, highly educated raters are able to come to an

acceptable level of agreement as they apply the Trauma Play Scale to videotaped play therapy sessions. Notwithstanding the high level of expertise amongst raters who participated in this study, the training process involved a substantial investment of resources in terms of time, money, and energy. The implication is that the current version of the Trauma Play Scale should be used by researchers who have a strong investment in studying the process of play therapy for traumatized children. In addition, researchers should carefully select raters who are highly educated in the areas of play therapy, child development, and theories related to trauma reactions in children. An additional implication is that the current version of the Trauma Play Scale is not well-suited for mass distribution; that is, researchers will not be able to simply order the rating scale and manual and use the scale effectively. Researchers wishing to use the scale should undergo extensive training on the use of the scale before they attempt to conduct research in this area. The training process would be enhanced by the expansion of the Trauma Play Scale User's Guide, as well as the creation of a standard set of videotaped play therapy vignettes that would be available for training purposes.

Results of the pilot study indicate that traumatized and non-traumatized children exhibit divergent patterns of play behaviors, as measured by the Trauma Play Scale. These divergent patterns are consistent with the literature related to posttraumatic play, which suggests that children with a history of trauma tend to touch on traumatic material for a time and then back away, returning to the traumatic material at a later point (Cockle & Allan, 1996). Traumatized children appear to experience a more complicated change process than children with no known history of trauma (Cockle & Allan, 1996; James, 1994). The implication is that traumatized children may require long-term therapy in comparison with their non-traumatized peers (Cockle & Allan, 1996; Gil, 1991; James, 1994; Terr, 2003). Additional research investigating the long-

term process of play therapy for traumatized children is warranted. Clinicians may eventually use this information to justify long-term therapy for traumatized children as they negotiate with managed care companies and other third-party payers.

According to pilot study data the Trauma Play Scale was effective in discriminating between traumatized and non-traumatized children. This result carries several implications. First, researchers interested in the play therapy behaviors of traumatized children may use the Trauma Play Scale as a tool for gathering information and generating new knowledge in this area. Second, the Trauma Play Scale may be used in graduate play therapy courses; this would facilitate students' understanding of the characteristic play behaviors of traumatized children. In addition, the use of the scale in an academic setting would allow students to engage in an in-depth analysis of the process of play therapy. Third, clinicians and researchers may consider the occurrence of this cluster of behaviors as an indicator of posttraumatic responses in children. The use of the Trauma Play Scale may assist clinicians and researchers in identifying children with a probable history of trauma. The Trauma Play Scale may be used as a screening tool to assist clinicians in forming their diagnostic impressions of a child in therapy. This may assist with the development of prognoses and treatment plans. In addition, clinicians who use the scale in this manner may be better able to educate parents and teachers as to the behaviors that are indicative of a history of trauma. In short, clinicians may use the Trauma Play Scale as a guide in assisting parents and teachers in identifying children who are in need of therapeutic support.

The Trauma Play Scale was created in an environment wherein child-centered, non-directive play therapy is the norm. I have attempted to clarify my theoretical assumptions as they related to the development of the scale. It seems clear that many of the play behaviors measured by the Trauma Play Scale would not surface were the child engaged in a highly

directive play therapy process. In fact, controversy abounds as to whether or not children should be allowed to engage in reenactments, repetitive play, or other behaviors associated with the construct of posttraumatic play (James, 1994; Schaefer, 1994). In my view, children are best able to communicate their inner experiences and needs when they are in the presence of an accepting, supportive, and non-directive therapist. Use of the Trauma Play Scale seems to require that therapists allow children to engage in self-directed play for a period of several sessions.

Recommendations

Based on the results of this study, I offer the following recommendations for future research:

1. Researchers and practitioners who have received adequate training on the use of the Trauma Play Scale should use the scale to learn more about the needs of children with a history of trauma as a group, as well as individual children with a history of trauma.
2. Conduct a replication of this pilot study using a larger sample size in order to increase the power of statistical analyses.
3. Conduct a replication of this pilot study using a sample of children drawn from a non-clinical population as a comparison group. Develop Trauma Play Scale norms based on trauma history, type of trauma, age, gender, and ethnicity.
4. Extend the number of sessions so that a longer period of therapy is reviewed by raters. This should enhance researchers' ability to detect significant differences in the change patterns exhibited by children with a history of trauma versus children with no known history of trauma.
5. Conduct a study that compares information gained from the application of the Trauma Play Scale with information gained from the application of other well-established measures of children's behaviors, especially measures of posttraumatic responses in

young children. This type of study would provide further information related to the construct validity of the Trauma Play Scale.

6. Conduct additional research related to the reliability and validity of the Trauma Play Scale.
7. Develop a more comprehensive manual and training program in order to facilitate the use of the Trauma Play Scale in a variety of settings.
8. Conduct a study wherein both therapists and objective raters engaged in the rating process in order to compare the ratings of these two groups, with special attention to the repetitive play domain.
9. Conduct an in-depth analysis of the phenomenon of repetitive play and revise the Trauma Play Scale in accordance with findings. An ideal study would include a variety of experts in the fields of play therapy and traumatology who are willing to rate a series of videotaped play therapy sessions along this domain until they come to consensus as to what play behaviors constitute repetitive play.

Concluding Remarks

This project appears to be unique in that I have encountered no other attempts to develop an observation-based rating scale designed to assess the impact of trauma on the play therapy behaviors of young children. The current version of the Trauma Play Scale appears to be a theoretically sound measure of the presence of posttraumatic play in the play behaviors of young children. Sound reliability and validity data are exceptionally important in any psychometric instrument; indeed, without these characteristics, one would be justified in doubting whether the instrument produced consistent results, or whether it would measure that which it purports to measure (DeVellis, 2003; Gall, Borg, & Gall, 1996; Netemeyer, Bearden, & Sharma, 2003). The

preliminary reliability and validity data obtained through the implementation of the pilot study support the conclusion that the current version of the Trauma Play Scale is a promising measure of the impact of trauma in young children, within the context of an ongoing relationship with a play therapist.

The results of the current study support the conclusion that children with a history of trauma exhibit unique patterns of play behaviors that are consistent with the literature describing posttraumatic play (Terr, 1983; see also Eth, 2001; James, 1994; Mills & Allan, 1992; Pynoos, 2001; Schaefer, 1994). In particular, the following cluster of behaviors, when considered together, is highly characteristic of the play behaviors of traumatized children: intense play, repetitive play, play disruptions, avoidant play behavior, and expression of negative affect. These domains, considered individually, have varying degrees of discriminant power; that is, some of these behavioral dimensions are more distinctly characteristic of traumatized children than others.

The results of the pilot study seem quite promising; the current version of the Trauma Play Scale appears to be psychometrically sound. This suggests that future research related to the Trauma Play Scale, as well as the play therapy behaviors of traumatized children, is warranted.

APPENDIX A
INFORMED CONSENT FORM

**UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF
HUMAN SUBJECTS
RESEARCH CONSENT FORM**

Subject Name: _____ Date: _____

Title of Study:

A Comparison of Play Therapy Behaviors of Children With Suspected Trauma History with the Play Therapy Behaviors of Children with No Known Trauma History.

Principal Investigator: Jennifer H. Findling, doctoral student, Department of Counseling, Development, and Higher Education, and Clinical Supervisor, Child and Family Resource Clinic, University of North Texas (940) 565-2066.

Co-Investigators: Dr. Sue Bratton, Assistant Professor, Counseling program, Director, Child and Family Resource Clinic; Dr. Dee Ray, Assistant Professor Counseling program, Director, Counseling and Human Development Center; Dr. Garry Landreth, Professor, Counseling program, Dr. Lessie Perry, Adjunct Professor, Counseling program, Clinical Supervisor, Child and Family Resource Clinic, Brandy Schumann, Yumiko Ogawa, Mary Morrison, Eunah Lee, Annette Athy, Wendy Helker, Janice Ingram, Yvonne Garza, Tracy McClung, and LeAnne Steen, doctoral students in the Counseling program.

Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the proposed procedures. It describes the procedures, benefits, risks, and discomforts of the study. It also describes your right to withdraw from the study at any time. It is important for you to understand that no guarantees or assurances can be made as to the results of this study.

Start Date of Study: 5/1/2003 End Date of Study: 4/30/2004

Purpose of the Study:

The purpose of this study is to learn more about how traumatic events affect children. This study will compare the behaviors of children who have experienced a traumatic event (as reported by their parent or guardian) with the behaviors of children who have not experienced a traumatic event (as far as we know). Videotapes of the child's play therapy sessions will be used to compare the children's behaviors while they are in play therapy. The researcher and the research team will compare many different play behaviors.

Description of the study including procedures to be used and length of subject involvement:

The research team is made up of professors and doctoral students in the Counseling program here at the University of North Texas. The Principal Investigator will recruit participants for this

Research Consent Form—Page 1 of 7 _____ Participant's initials

study from the clients who are already in therapy at either the Child and Family Resource Clinic (CFRC) or the Counseling and Human Development Center (CHDC); both of these clinics are used as training facilities for graduate students in the Counseling program. The Principal Investigator (leader on this project) is both a doctoral student in the Counseling program and she is also employed as a Clinical Supervisor at the Child and Family Resource Clinic (CFRC). This means that the Principal Investigator sees some children as a therapist at the CFRC, and that she also observes other therapists who see children at the CFRC, in order to help them learn to be better therapists. The faculty members on this research team are also Clinical Supervisors, as are some of the other doctoral students on this research team. Sometimes observations are done in-person (through the one-way mirror), but most of the time the Clinical Supervisors look at videotapes of play therapy sessions together with the therapist in a supervision meeting. One of the Clinical Supervisors at the CFRC is the same person as the Principal Investigator. No child's therapy process will be interrupted or changed in any way as a result of the Clinical Supervisor's leadership role in this research project; the only difference will be that the Clinical Supervisor may view the videotapes of the child's therapy in more detail (in her role as a researcher) than she might otherwise. The Principal Investigator has requested referrals of appropriate potential participants from the Clinical Supervisors and Clinical Directors of both the CFRC and the CHDC. The Principal Investigator also works as a Clinical Supervisor at the CFRC, so she will be referring some clients to herself; she will be acting in both the role of Clinical Supervisor and Principal Investigator. All Clinical Supervisors receive supervision, and supervision of supervision, from the Directors of the CFRC and the CHDC. The Clinical Supervisor at the CFRC who is also the Principal Investigator on this project (Jennifer Findling) will continue to receive supervision from the Director of the CFRC in regards to her role as a Clinical Supervisor; this supervision will help to ensure that there is no negative impact on clients' therapy progress as a result of the dual roles of the Principal Investigator/Clinical Supervisor.

During this research study, the Principal Investigator will ask the Directors and Clinical Supervisors at the CFRC and CHDC to identify children who might be able to participate in this project. The Principal Investigator will request that the Directors and Clinical Supervisors ask each therapist to review their clients' written case files in order to decide whether or not the client meets the inclusion criteria for the study; that is, the therapist will decide if it makes sense for the child to participate in the study, based on the goals of the study and the child's background information. If a therapist believes that a child client has probably had a traumatic experience, then that child will be assigned to the trauma group. Usually it is the child's parent or guardian who tells the therapist about extremely stressful events in the child's life; however, sometimes the child tells the therapist about these events. If your child's therapist (or your therapist) believes that your child has had an experience that was probably traumatic, then your child's (or your) therapist will talk with you and explain what trauma means, especially for children. You may want to read *Children and Trauma: A Parent's Guide to Helping Children Heal* by Cynthia Monahan, or *A Terrible Thing Happened—A story for children who have witnessed violence or trauma* by Margaret M. Holmes and Sasha J. Mudlaff. If your child is assigned to the trauma group, this does not necessarily mean that your child has been given a formal diagnosis related to the trauma; many children have a trauma reaction (also called traumatic stress reaction) after an extremely stressful event. A trauma reaction may include

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many of the same signs or symptoms that are a part of a formal diagnosis related to trauma (such as Post-Traumatic Stress Disorder). In order for a child to receive a formal diagnosis, the child's behavioral and emotional signs and symptoms must be severe and must have a strong negative impact on many aspects of the child's life, such as impaired social, emotional, or scholastic functioning. Therapists (counselors) in training are not allowed (legally) to give formal diagnoses based on the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-IV-TR). Only a Licensed Professional Counselor (LPC) or another legally qualified mental health professional may give a client a formal diagnosis. All of the faculty members involved in this research study are LPC-Supervisors (LPC-S), licensed by the state of Texas; they are also Registered Play Therapist-Supervisors (RPT-S), in addition to having a doctorate in Counseling. Any formal diagnosis given to a child client of the CFRC or the CHDC must be given (through live observation or videotaped therapy sessions) by the licensed supervisor. If your child (or you) has been given a formal diagnosis, your child's (or your) therapist is required to explain what this diagnosis means. All therapists at the CFRC and the CHDC are required to review all of their clients' history and progress in supervision; you may request to speak with a Clinical Supervisor or the Clinical Director at the CFRC or the CHDC at any time if you have concerns about your child's treatment.

Forty children will participate in this research study; twenty will be children who have experienced a traumatic event (according to parent/guardian's report and/or child's report) and twenty will be children who have not experienced a traumatic event, as far as we know. Traumatic events are extremely stressful situations, like physical, emotional, or sexual abuse, abandonment by a caretaker, mental illness of a caretaker, or other situations that cause the child to be terrified. The Principal Investigator will talk with you (either child participant or child's parent or guardian) and explain what the research is about. You (child, parent, or guardian) will then decide whether or not to participate in the study. Your child's therapist (or your therapist, if you are a child) will videotape the play therapy sessions as usual; all the sessions at the CFRC and CHDC are videotaped so that the therapist can get the best training on how to work with children. The therapist will keep the videotapes of your child's (or your) play therapy sessions and will turn them in to the Principal Investigator or another member of the research team. The Principal Investigator will keep the videotapes locked up in a filing cabinet at the CFRC. The Principal Investigator will use first names only on the videotapes, so that only people on the research team will know the full names of the children who participate in the study. All of the people on the research team are students or faculty in the Counseling program here at UNT; they are not allowed to tell anyone outside of the CFRC or CHDC about anything they see or hear about the children who participate in this study. When the research team is ready to view the videotapes collected for this study, the Principal Investigator or another member of the research team will retrieve the videos from the locked filing cabinet in the CFRC. The videos will be viewed using audio-visual equipment (VCR's and monitors) within the CFRC. The research team members will look closely at the videotapes and measure the child's behaviors in the sessions. The research team members will use the Play Therapy Observation Instrument (PTOI) to rate the child's behavior in play therapy. This is rating instrument has thirteen behavior categories and the researchers will rate the child's behavior on a scale of one to five for each category. For example, the researchers will see how often the child expresses negative feelings

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(anger, frustration, etc.) and how often the child uses his or her imagination. Future research using these videotapes may use similar rating instruments, such as the Play Behavior Assessment Rating Scale (PBARS), the Children's Play Therapy Instrument (CPTI), or other rating scales that the research team agrees would help the researchers learn about the play therapy behaviors of children. The research team may also develop a new rating scale of children's play therapy behaviors by using these videotapes. The research team will look at the child's written treatment records to get the therapist's opinion on what happened in the sessions. The research team will also look at other information in the child's written treatment records; for example, parents' income level, whether or not there was a history of domestic violence, how much television the child watches, etc. Assessment instruments given as part of the child's therapy (such as the Child Behavior Checklist (CBC), the Parenting Stress Index (PSI), Behavioral Assessment System for Children (BASC), and the Trauma Symptom Checklist for Children (TSCC, for children eight and older), or other standard assessment instruments routinely given in treatment at the CFRC or the CHDC. After the Principal Investigator and the research team watch the videotapes and look through the written treatment records, relevant information will be given a number code (to preserve confidentiality) and entered into a database housed within the CFRC. The research team will then use statistics (estimates of mathematical probability) to see if the child's behaviors in the play therapy sessions seem to be related to traumatic events, or if the child's behaviors would have happened anyway, by chance. If you volunteer to participate in this study, you will give less than one hour of your time in order to read and understand the consent form and ask any questions you may have. The research team may ask you a few additional questions about your child's (or your) possible history of trauma. Other than this, your child's (or your) play therapy treatment will be exactly the same as if your child (or you) had not volunteered to participate in this study.

Description of procedures/elements that may result in discomfort or inconvenience:

Children who participate in this research study may experience some negative feelings (anger, sadness, or frustration) while they participate in play therapy sessions. This is normal and is usually an important part of therapy for the child. Children who participate in this study are already participating in play therapy so participating in this study should not cause them to feel any more negative feelings than they would otherwise.

Description of procedures/elements that are associated with foreseeable risks:

The biggest risk associated with participating in this study is that one of the videotapes of your child's (or your) play therapy sessions could get lost or stolen and the play therapy session would no longer be private (confidential). The Principal Investigator or another member of the research team will keep the videotapes locked up in a filing cabinet inside the counseling clinic, so it is very unlikely that videotapes would be lost or stolen. Your child's (or your) therapy will not be affected in any way by participating in this research study. Part of a therapist's (counselor's) job is to keep children safe. Your child's (or your) therapist has promised to keep everything your child (or you) says or does in therapy confidential (private), unless the therapist believes that the child is being hurt, or has been hurt in the past by another person. If the therapist believes that someone, especially an adult, is hurting the child, then the therapist must make sure that the child

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is safe. This means that your child's (or your) therapist must tell the police or Child Protective Services that someone is hurting your child (or you), so that they can do everything they can to protect your child (or you) and keep the child (or you) safe. The therapist (counselor) is required by law to report any kind of child abuse. If you believe that your child (or you) has suffered abuse, you may choose to report the abuse yourself to Child Protective Services at 1-800-252-5400. This is the state of Texas hotline number for reporting child abuse and reporting to this number may result in a civil or criminal investigation of alleged perpetrators (suspected abusers).

Benefits to the Participants or Others:

This research study will help therapists understand how children react to traumatic (extremely stressful) events, and how their reactions show up in their play behaviors. 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 how children react to stress, and how to tell if a child has experienced a traumatic event, based on their behaviors in play therapy.

Procedures for Maintaining Confidentiality of Videotapes and Research Records:

The Principal Investigator and the research team will keep all of the information from this study private (confidential). The Principal Investigator or another member of the research team will keep all of the videotapes locked up in a filing cabinet in the CFRC. The child's written treatment records will also be locked up in a filing cabinet, as usual. The Principal Investigator will use a number code, instead of names, on the videotapes so that the child's identity will be disguised. The Principal Investigator will also use a number code, instead of names, for parts of the child's written treatment records that will be entered into a computer for statistical analysis. The videotapes of play therapy sessions at the CFRC or CHDC are usually kept for one to two weeks after the session so that the therapist can view it in a supervision meeting with a Clinical Supervisor. The videotapes are usually then erased and destroyed, unless the counselor has obtained special permission from the client to use the videotape for educational purposes. The videotaped play therapy sessions collected for this research study will remain the property of the CFRC and they will be kept in a locked filing cabinet. These videotapes may be used in other future research projects similar to this study, as long as the researchers are either faculty members or graduate students in the Counseling program here at UNT, and the researchers have agreed to follow the procedures described in this Consent Form for maintaining clients' privacy and confidentiality. These videotapes may also be used for educational purposes within the CFRC or the CHDC. This means that faculty members who teach clinical courses within the CFRC or CHDC may use these videotapes in their classes to teach play therapy skills to graduate students in the Counseling program here at UNT. The child's written treatment records will also remain the property of the CFRC or CHDC; they will be kept in a locked filing cabinet just as they would be if the child had not participated in this research project. If the results of this study are published in a professional journal, book, or article, the researcher will disguise the child's

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identity in order to keep it private. No names or other identifying information (for example, geographic location, ethnicity, etc.) will be published. 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 Principal Investigator will remind the research team about their promise to maintain clients' privacy and confidentiality. The Principal Investigator and the research team will not send any private information over the Internet or through a fax machine, because these ways of communicating are difficult to control. The Principal Investigator and the research team will follow all state and federal laws related to maintaining clients' privacy and confidentiality when they are receiving services at the CFRC or the CHDC. Videotaped play therapy sessions and written treatment records of the child's therapy may be collected from either older sessions (therapy that happened within the past three years), or from current or future sessions (therapy that is happening now or during the course of this study). The videotapes and written treatment files used in this research study may be used in similar research studies in the future, after the Principal Investigator has graduated from the Counseling program at UNT. In this instance, either Dr. Sue Bratton or Dr. Dee Ray (or a future faculty member in the Counseling program) will take over the role of Principal Investigator. The current Principal Investigator will maintain contact with the research team in order to ensure that the research team continues to protect the privacy and confidentiality of clients at the CFRC and CHDC.

Review for Protection of Participants:

This research study has been reviewed and approved by the UNT Committee for the Protection of Human Subjects (940) 565-3940. The study was approved on _____ (date).

RESEARCH SUBJECTS' RIGHTS: You have read or have had read to you all of the above. Jennifer Findling has explained the study to you and answered all of your questions. You have been told the risks or discomforts and possible benefits of the study. You have been told of other choices of treatment available to your child (or you, if you are a child). You understand that you do not have to participate in this study, and that you may refuse to participate or withdraw from participating in this study at any time, and that doing so will involve no penalty or loss of rights or benefits or legal recourse to which you are entitled.

In case there are problems or questions, you have been told you can call Jennifer Findling at (940) 565-2066. You may also choose to contact Dr. Sue Bratton (940) 565-2066, who is the faculty advisor for this research project.

You understand your rights as the parent of a research subject (or as a research subject, if you are a child), and you voluntarily consent for your child (or you) to participate in this study. You signify that you understand what the study is about and how and why it is being done.

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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, non-committal)
 - 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										
Total Score										

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 child is clearly returning to a play sequence or theme that seems to hold specific meaning to the child. For example, if a child plays with the dress-up clothes for the first time in session three and she continues to play with the dress-up clothes for fifteen minutes (three segments) do not rate this play as repetitive play. Rather, it should be viewed as sustained play. However, if a child plays out a battle scene with army men in session two and then returns to the battle scene play in session three, this should be rated as repetitive play. If the child sustains this play sequence for fifteen minutes (three segments) then this should be rated as sustained repetitive play. If you rate a play sequence as repetitive play, then you should continue to rate it as repetitive play until the sequence ends.
 - 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 sand box 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 behavior to his or her own behavior in previous sessions. Therefore, a child who is consistently detached/rejecting may be rated high on this item over several segments or over several sessions.
- 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 M, I, PD, 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

	1 - 5	6 - 10	11 - 15	16 - 20	21-25
Animals	M I PD R				
Scary:	M I PD R				
	M I PD R				
Arts / Crafts	M I PD R				
Baby doll	M I PD R				
Bean Bag / Pillow / Blanket	M I PD R				
Bop bag	M I PD R				
Bottle / Pacifier / Sucking	M I PD R				
Bubbles	M I PD R				
Cash Register / Money	M I PD R				
Chalkboard	M I PD R				
Cleaning	M I PD R				
Doll House / Family	M I PD R				
Dress Up / Pretend	M I PD R				
	M I PD R				
Flashlight	M I PD R				
Food / Eating	M I PD R				
Games / Bat & Balls	M I PD R				
Guns	M I PD R				
Hammer / Log	M I PD R				
Handcuffs	M I PD R				
Hats / Masks	M I PD R				
Kitchen / Cooking:	M I PD R				
	M I PD R				
Knife / Sword	M I PD R				
Large Blocks	M I PD R				
Medical Kit / Band-Aids	M I PD R				
Instruments	M I PD R				
Paint / Easel	M I PD R				
Phone / Camera	M I PD R				
Puppets:	M I PD R				
Riding Car	M I PD R				
Rope	M I PD R				
Sandbox	M I PD R				
Soldiers / War	M I PD R				
Tape	M I PD R				
Theater	M I PD R				
Vehicles:	M I PD R				
	M I PD R				
Water	M I PD R				
Other:	M I PD R				

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 M, I, PD, or SS to indicate type of play observed.

CON=Control **MAST-C**=Constructive **REL-A**=Approval Seek **REL-M**=Manipulative
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HELP=Helpless **NUR**=Nurturing **REL-C**=Connecting **REL-T**=Testing
EXP=Exploratory
 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 - 15	16 - 20	21-25
Animals	M I PD R				
Scary:	M I PD R				
Arts / Crafts	M I PD R				
Baby doll	M I PD R				
Bean Bag / Pillow / Blanket	M I PD R				
Bop bag	M I PD R				
Bottle / Pacifier / Sucking	M I PD R				
Bubbles	M I PD R				
Cash Register / Money	M I PD R				
Chalkboard	M I PD R				
Cleaning	M I PD R				
Doll House / Family Dress Up / Pretend	M I PD R				
Flashlight	M I PD R				
Food / Eating	M I PD R				
Games / Bat & Balls	M I PD R				
Guns	M I PD R				
Hammer / Log	M I PD R				
Handcuffs	M I PD R				
Hats / Masks	M I PD R				
Kitchen / Cooking:	M I PD R				
Knife / Sword	M I PD R				
Large Blocks	M I PD R				
Medical Kit / Band-Aids	M I PD R				
Musical Instruments	M I PD R				
Paint / Easel	M I PD R				
Phone / Camera	M I PD R				
Puppets:	M I PD R				
Riding Car	M I PD R				
Rope	M I PD R				
Sandbox	M I PD R				
Soldiers / War	M I PD R				
Tape	M I PD R				
Theater	M I PD R				
Vehicles:	M I PD R				
Water	M I PD R				
Other:	M I PD R				
Other:	M I PD R				
Other:	M I PD R				

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	2.89
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	3.20	2.2	3.8	3	2.8	3.2	3.4	2.8	3.4	3.09
										Overall Session Trauma Score

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

Intense Play	3.20	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. Session Trauma Scores	3.34	2.5	3.8	3.3	3	3.34	3.62	3	3.02	3.58	3.27
											Overall Series 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. Series Trauma Scores	2.88	2.9	4.02	2.74	3.1	2.84	3.62	3.1	3.02	3.58	3.18
											Overall Group 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

TRAUMA GROUP INCLUSION CRITERIA CHECKLIST

Trauma Group Inclusion Criteria Checklist

An affirmative response is required on each item for child to be included in the trauma 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 caretaker 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
3. 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

— —

APPENDIX E

TRAUMA PLAY SCALE EVALUATION FORM

Trauma Play Scale – Expert Evaluation Form

Thank you for taking the time to review this scale—your input is extremely valuable! We would especially appreciate your comments and suggestions for improving the scale as a whole (please return your completed evaluation form in the enclosed envelope by May 14th).

Please indicate your level of agreement on the following items (circle a response) and add relevant comments below:

1. The Trauma Play Scale seems to be a valid measure of the construct of post-traumatic play in young children engaging in the process of play therapy. (Note: A higher Total Score – total across the five domains) is hypothesized to indicate a higher level of impact of trauma on children’s play therapy behavior.

Strongly Disagree Disagree Neutral Agree Strongly Agree

2. The five domains (subscales) of trauma play behaviors included in the Trauma Play Scale are consistent with my understanding of the concept of post-traumatic play. (Intense Play, Repetitive Play, Play Disruption, Avoidant Behavior, and Negative Affect)

Strongly Disagree Disagree Neutral Agree Strongly Agree

3. The behavioral descriptors (anchors for the 1-5 ratings for each domain) provided for the Intense Play domain are clear and relevant to the concept of intense play, as it relates to trauma play.

Strongly Disagree Disagree Neutral Agree Strongly Agree

4. The behavioral descriptors (anchors for the 1-5 ratings for each domain) provided for the Repetitive Play domain are clear and relevant to the concept of repetitive play, as it relates to trauma play.

Strongly Disagree Disagree Neutral Agree Strongly Agree

5. The behavioral descriptors (anchors for the 1-5 ratings for each domain) provided for the Play Disruption domain are clear and relevant to the concept of play disruptions, as it relates to trauma play.

Strongly Disagree Disagree Neutral Agree Strongly Agree

6. The behavioral descriptors (anchors for the 1-5 ratings for each domain) provided for the Avoidant Play Behavior domain are clear and relevant to the concept of avoidant play, as it relates to trauma play.

Strongly Disagree Disagree Neutral Agree Strongly Agree

10. The behavioral descriptors (anchors for the 1-5 ratings for each domain) provided for the Negative Affect domain are clear and relevant to the concept of negative affect, as it relates to trauma play.

Strongly Disagree Disagree Neutral Agree Strongly Agree

11. Although this scale was developed based on observations of children engaged in child-centered play therapy, along with the literature on trauma play, do you believe it would also be appropriate for assessing trauma play in children engaged in more directive play therapy approaches?
-
-
-
-

9. Please list any additional comments related to how the Trauma Play Scale might be improved as a measure of the play behaviors of traumatized children. Thank you for your help!
-
-
-
-
-
-
-

Feel free to attach additional comments as desired.

APPENDIX F
CHILD BACKGROUND INFORMATION FORM

Has your child ever seen a mental health professional (psychiatrist, psychologist, or a counselor)? No ___ Yes ___ (If so, we will need your permission in order to communicate with that individual or agency)

Previous Mental Health Professional/Agency _____
Name _____ Address _____
Phone _____ Dates of Service _____ (beginning - ending)

Has your child been hospitalized for mental health concerns No ___ Yes ___
If yes: When _____ Where _____

How were you referred to our clinic? (check those that apply): Physician ___ School personnel ___
Yellow Pages ___ Family member ___ Counselor/Psychologist/Psychiatrist ___ Friend or
Coworker ___ Minister ___ DPRS ___ Flyer ___ Newspaper Ads ___ UNT Community ___ Court ___
Self ___ Relative ___ Other _____

Are you seeking services for your child because they are a victim of a crime? Yes ___ No ___
Did it result in legal action? _____

Person responsible for financial arrangements with our
clinic: _____

Are you applying for sliding scale payments? Yes ___ No ___

Gross Household Annual Income and Child Support Received

___ Less than \$15,000	___ 15,001 - 16,000	___ 16,001 - 18,000
___ 18,001 - 20,000	___ 20,001 - 22,000	___ 22,001 - 24,000
___ 24,001 - 26,000	___ 26,001 - 28,000	___ 28,001 - 31,000
___ 31,001 - 34,000	___ 34,001 - 39,000	___ 40,000 +

How many family members currently reside in your home? _____

*** INFORMATION ON CHILDS MOTHER ***

Mothers Name:

Last _____ First _____ MI _____
I am ___ biological mother ___ stepmother ___ adopted mother Other _____
Address: _____

_____ Street _____ Apt. _____ City _____ State _____ Zip _____

Home Phone: _____ Work Phone: _____
(May call: Yes/no Leave Message: Yes/No) (May call: Yes/no Leave
Message: Yes/No)

Date of Birth: _____	Occupation: _____
Employer _____	How Long: _____

Last Year of education completed: 8th grade or below _____ High School ___ GED ___
Trade School ___ Some College ___ College Graduate ___ Master ' s Degree ___ Ph. D.
Degree _____

History of learning, emotional, or behavioral problems: Yes ___ No ___ (If yes, please explain)

History of alcohol/drug/substance abuse: Yes ___ No ___ (If yes, please explain)

History of family violence: Yes ___ No ___ (If yes please explain)

History of criminal activity: Yes ___ No ___ (If yes, please explain)

Current living arrangements: Single ___ Significant other ___ Single parent with children ___
Roommate(s) ___ Married ___ Married with children ___ Family of origin ___
Living with other relatives ___ Other _____

Marital Status (indicate all that apply and duration of each, ex. 1965-1985): Never married _____
Married 1 _____ Separated 1 _____ Divorced 1 _____ Widowed 1 _____
Married 2 _____ Separated 2 _____ Divorced 2 _____ Widowed 2 _____
Married 3 _____ Separated 3 _____ Divorced 3 _____ Widowed 3 _____

*** INFORMATION ON CHILD'S FATHER ***

Father's Name:

Last _____ First _____ M. _____
I am ___ biological father ___ stepfather ___ adopted father ___ other _____

Address: _____
Street Apt. City State Zip

Home Phone: _____ (May call: Yes/no Leave Message: Yes/No)
Work Phone: _____ (May call: Yes/no Leave Message: Yes/No)

Date of Birth: _____	Occupation: _____
Employer: _____ long: _____	How _____

Last Year of education completed: 8th grade or below _____ High School ___ GED ___
Trade School ___ Some College ___ College Graduate ___ Master's Degree ___ Ph. D. Degree _____

History of learning, emotional, or behavioral problems: Yes ___ No ___ (If yes, please explain)

History of alcohol/drug/substance abuse: Yes ___ No ___ (If yes, please explain)

History of family violence: Yes ___ No ___ (If yes please explain)

History of criminal activity: Yes ___ No ___ (If yes, please explain)

Current living arrangements: Single ___ Significant other ___ Single parent with children ___
Roommate(s) ___ Married ___ Married with children ___ Family of origin ___
Living with other relatives ___ Other _____

Marital Status (indicate all that apply and duration of each, ex. 1965-1985): Never married _____

Married 1 _____ Separated 1 _____ Divorced 1 _____ Widowed 1 _____
 Married 2 _____ Separated 2 _____ Divorced 2 _____ Widowed 2 _____
 Married 3 _____ Separated 3 _____ Divorced 3 _____ Widowed 3 _____

*** GENERAL INFORMATION ***

Child's current household: Mother only ___ Father only ___ Natural parents ___ Natural
 Mother and Step-Father ___ Natural Father and Step-Mother ___ Blended family (both spouses
 with children) ___ Adoptive parents ___ Grandparents ___ Other Relatives ___ Foster family ___
 Institution ___ Other _____

List by Household your child's current family, beginning with the oldest member and include the child:

Primary Household (anyone who currently lives with child)

How long in this current living situation: _____

Name _____ Age _____ Gender _____ Relationship to you (include step, half, etc.)

Child lives in: House _____ Apartment _____ Duplex _____ Other _____

Second Household (non-custodial or extended family - if applicable)

Name _____ Age _____ Gender _____ Relationship to you (include •step•, •half•, etc.)

Currently involved in a custody dispute: No ___ Yes ___ (If yes, explain) _____

If divorced, circle the number which best describes your relationship with your ex-spouse.

Hostile _____ Frustrating _____ Friendly _____
 ___1___ 2___ 3___ 4___ 5___

How often does client see non-custodial parent? _____

*** CHILD'S HEALTH ***

Child's Primary Care Physician: _____

Name _____ Phone _____

Address _____

Date of LAST complete physical _____

Has your child ever seen a psychiatrist? Yes ___ No ___

Is child currently seeing a psychiatrist? Yes ___ No ___ (If yes list name and address and phone):

Name _____ Phone _____

Address

Physical Disability: Yes ___ No ___ (If yes, explain)

Chronic Illness: Yes ___ No ___ (If yes, explain)

Terminal Illness: Yes ___ No ___ (If yes, explain)

Check the following items for a diagnosis or medication that your child is now receiving or has received:

Diagnosis	Current	Past	Date of Diagnosis	Name of medication / Dosage
Depression	_____	_____	_____	_____
ADHD Hyperactive	_____	_____	_____	_____
ADHD Inattentive	_____	_____	_____	_____
Conduct Disorder	_____	_____	_____	_____
Learning Disability	_____	_____	_____	_____
Anxiety/ Nervousness	_____	_____	_____	_____
Panic Attack	_____	_____	_____	_____
Manic-Depression (Bipolar)	_____	_____	_____	_____
Schizophrenia	_____	_____	_____	_____
Oppositional Defiant Disorder	_____	_____	_____	_____
Mood/Anger	_____	_____	_____	_____
Tics	_____	_____	_____	_____
Insomnia/ Sleeplessness	_____	_____	_____	_____
Obsessive/ Compulsive	_____	_____	_____	_____
Addictions	_____	_____	_____	_____
Convulsions	_____	_____	_____	_____
Post-Traumatic Stress Disorder	_____	_____	_____	_____
Other	_____	_____	_____	_____

(If you do not know the name and dosage of current medication, please bring the medication to your next session)

If your child has been diagnosed, who gave the diagnosis? Pediatrician ___ Psychiatrist ___
School ___ Other _____

What other medication is your child currently taking?

Medication	Dosage	Taken for what reason?
_____	_____	_____
_____	_____	_____
_____	_____	_____

*** CURRENT CONCERNS ***

Indicate severity of up to 10 items that currently apply to your child. (1-mild; 2-moderate; 3-severe) Circle the item that you see as the most significant issue

- Adjustment to life changes (changing schools, parent's divorcing, moving, getting married or divorced, aging, etc.)
- Bed wetting daytime wetting, soiling or related problems
- Career Decisions
- Abuse (physical, emotional, sexual)
- Disturbing memories (past abuse, neglect or other traumatic experience)
- Drug or alcohol use (both legal and illegal drugs)
- Eating problem (purging, bingeing, overeating, hoarding, severely restricting diet)
- Feeling anxious (nervous, clingy, fearful, worried, panicky, obsessive-compulsive, lacking trust, etc.)
- Feeling angry or irritable
- Feeling guilty or shameful
- Feeling sadness or depression related to grief
- Feeling sadness or depression NOT related to grief
- Gang related concerns (explain _____)
- Health concerns (physical complaints and/or medical problems)
- Illegal behaviors (runaway, stealing, fire setting, truancy, etc.)
- Learning/Academic difficulties
- Personal Growth (no specific problem)
- Parent-Child relationship (discipline, adoption, single parent, etc.)
- Family or Step-family relationship problems
- Non-family relationship problems (teachers, peers, etc.)
- Religious or Spiritual concerns
- Sexual concerns (excessive masturbation, inappropriate acting out)
- Sexual identity concern
- Sleep problem (nightmares, sleeping too much or too little, etc.)
- Speech problem (not talking, stuttering, etc.)
- Suicidal Ideation (thoughts of death, wanting to die)
- Unusual experiences (loss of periods of time, sensing unreal things, etc.)
- Unusual behavior (bizarre actions, speech, compulsive behavior, tics, motor behavior problems, etc.)
- Other (explain _____)

***Remember to circle the most significant issue.**

When did you first become concerned about this issue? _____

How have you attempted before now to deal with this issues? _____

Other treatment your child or your family has received to address any of the concerns you indicated above: None ___ Individual counseling ___ Family counseling ___ Group counseling ___ Couples Counseling ___ Hospitalization ___ School Counseling ___ Other (explain) _____

What do you enjoy most about this child? _____

What do you find most difficult about this child?

Anything else you think we need to know

What is the one thing I need to know to help your child today?

*** FAMILY HISTORY/EXPERIENCES ***

(For each of the following items that apply, write in your child's approximate age at the time it occurred):

Raised by: Natural parents___ Single natural parent___ Grandparents___ Adoptive parent(s)___ Natural and step-parent___ Foster parents___ Institution___ Relatives___ Other_____

Stressors in the Family: Parents fighting frequently___ Parents divorced___ Financial problems___ Family member's disability or major accident or illness___ Chronic illness of family member___ Moved a lot___ Family member absent (explain)_____
Death of significant person___ Family member suicide(explain)_____
Family member emotional problems (explain)_____
Other (explain)_____

History of your child having learning, emotional, behavioral problems: yes__ no__
(If yes, please explain) _____

History of your child having alcohol/drug/substance abuse: yes__ no__
(If yes, please explain) _____

History of family violence: yes__ no__
(If yes, please explain) _____

History of criminal activity in the family: yes__ no__
(If yes, please explain) _____

Has your child been abused (check all that apply): Physically___ Emotionally___ Sexually___

Has your child been neglected (check all that apply): Physically___ Emotionally___

School Problems (check all that apply): Academic problems___ Severely teased___ Discipline problems___ Unpopular___ Other (explain _____)

Early Language/Speech Problems (explain _____)

History of emotional concerns include: Emotional problems___ Suicidal thoughts___ Suicide attempts___ Loss of energy or fatigue___ Lost weight___ Gained weight___ Appetite change___ Heard voices when no one was around___ Other (explain)_____

History of behavior problems include: (check all that apply): Misbehaved a lot___ Trouble with the law___ Involved with the juvenile system___ Ran away___ Impulsive___ Alcohol and/or drug use___ Hyperactive___ Attention problems___ Accident-prone___ Frequent arguments___ Taken advantage of___ Temper outbursts___ Aggression___ Loner___ Other_____

History of anxiety symptoms include: (indicate all that apply): Obsessive worrying___ Keyed up, on edge___ Phobias___ Irritable___ Physical symptoms (below)___ Other_____

History of health/physical problems include: (check all that apply): Headache (kind) ___ Nervous stomach ___ Diarrhea ___ Bone/joint/muscle ___ PMS ___ Dizziness ___ Shortness of breath without exertion ___ Heart Palpitations ___ Chest pain ___ Surgeries ___ Major illness ___ Major accident ___ Disability ___ Chronic illness ___ Hospitalization ___ Developmental delay(s) ___ Sleep problem ___ Bedwetting ___ Serious overeating or under eating ___ Neurological problems/exam ___ Asthma ___ Other _____

History of trauma/stressor include: (check all that apply): Child separated from parent (how long and when) _____ Death of a significant person ___ Death of a pet ___ Incarcerated family member ___ Sexual Assault ___ Victim of trauma (unusual, terrifying experience) ___ Medical ___ Natural Disaster ___ Other _____

History of interpersonal problems include: (check all that apply): Frequent arguments ___ Taken advantage of ___ Temper outbursts ___ aggressive behavior ___ Loner ___ Other _____

Family Atmosphere (circle the number that best describes how you view your child's current family atmosphere)

Very lenient	1	2	3	4	5	Very strict
Very non-religious	1	2	3	4	5	Very religious
Chaotic	1	2	3	4	5	Highly structured
Few expectations	1	2	3	4	5	High expectations
Inconsistent	1	2	3	4	5	Consistent

Family Support System (such as church, friends, relatives, school)

Hardly any support 1 2 3 4 5 Considerable support

Your child's current use of Computer, VCR, and Television (circle the number of hours that best describes use):

Computer (circle approximate hours spent each week)

0-2 3-5 6-8 9-11 12+

TV/VCR (circle approximate hours spent each week)

0-2 3-5 6-8 9-11 12+

APPENDIX G
EXPERTS' QUALITATIVE FEEDBACK

Experts provided qualitative feedback on the scale as a whole as well as each of the subscales. The experts seemed to agree that the current version of the Trauma Play Scale is a valid measure of the concept of posttraumatic play. One expert explained her view that some of the behavioral descriptors included in the domain scales could be related to issues other than trauma. However, she noted that on the whole, the higher scores (i.e., ratings of four or five on a particular domain) did seem more indicative of a history of trauma than lower scores.

The experts were also in agreement that the five domains of the current version of the Trauma Play Scale are representative of the construct of posttraumatic play. One expert suggested an additional domain that might be relevant to this construct; that is, a measure of the child's inclusion of the therapist throughout the play therapy process. Another expert suggested that the scale include a measure of a child's inability to play due to hypervigilance or the developmental delays that may accompany trauma.

When asked to respond to the Intense Play domain, experts agreed that the behavioral descriptors included in the scale are clear and relevant to the concept of intense play, on the whole. One expert wondered whether dissociative play could be included under the intense play domain. Another expert commented that some of the behavioral descriptors on the Intense Play domain could be related to processes other than a trauma history; in particular, this expert felt that a child who is "deeply absorbed" in play may not be indicative of a trauma history, whereas a child who "lacks spontaneity" seems more distinctly related to a history of trauma. A third expert was of the opinion that the Intense Play Domain seems to mix two dimensions of play—intensity versus pleasure or

spontaneity. This expert suggested that these two dimensions may be better measured separately.

When asked to respond to the Repetitive Play domain, experts were generally in agreement that the behavioral descriptors included in the domain were clear and relevant to the concept of repetitive play. One expert opined that “developmental mastery” play may be difficult to rate in terms of its meaning to the child. For instance, the child may be throwing darts at a dartboard repeatedly, yet imagine that they are throwing darts at a person rather than a target. The play would then take on a different meaning for the child and would seem to represent more than “developmental mastery” play. Another expert noted that the highest level of repetitive play appears to be indicative of a trauma history, whereas the lower levels described in this domain could be related to therapeutic issues other than trauma. A third expert noted that in her experience, it is *very* difficult to get people to recognize thematic repetition.

In response to the Play Disruption domain, the experts tended to agree that the behavioral descriptors provided were clear and relevant to the concept of play disruption. One expert expressed her view that the behavioral descriptors were somewhat confusing; this expert wondered whether the primary difference between a lower score and a higher score on this domain was whether or not the child seemed to engage the therapist as a source of possible comfort. Another expert expressed enthusiasm about the Play Disruption domain, with the simple comment, “this one is good!” A third expert expressed the opinion that the Play Disruption domain failed to capture the child’s responses to the therapist’s actions or comments within the session. This expert

described her view that play disruptions are often caused by poorly worded or poorly timed interpretations on the part of the therapist.

When asked to respond to the Avoidant Play Behavior domain, experts were in agreement that the behavioral descriptors provided were clear and relevant to the concept of avoidant play. One expert wondered whether the Avoidant Play Behavior domain was intended to measure the child's general attachment to the therapist or the child's avoidance of the therapist for a specific reason, such as in reaction to the therapist's behavior. This expert noted that many traumatized children are overly sensitive to even the slightest negativity within an interaction, such as when the therapist sets limits.

In response to the Negative Affect domain, experts were in agreement that the behavioral descriptors provided were clear and relevant to the concept of negative affect. One expert wondered how one might rate a child's affect when the affect seems incongruent with the child's play behavior. For example, a child who smiles and laughs while the "soldiers die" could be difficult to rate using the Negative Affect scale. Another expert expressed concerns about the broad definition of negative affect. This expert felt that a lot of information is lost in lumping together flat affect with anxiety, fear, sadness, and anger. The expert suggested that these affective states could be separated out in order to provide more specific information. Another expert noted that negative affect is such a common part of children's play; the child may be responding to daily upsets. This expert expressed some doubt as to whether the degree of a child's expression of negative affect would be indicative of a trauma history.

The evaluation form included a question about whether or not the current version of the Trauma Play Scale would be appropriate for use in assessing trauma play in children

engaged in more directive forms of play therapy, in light of the fact that the scale was developed based on observations of children engaged in child-centered play therapy. Most experts agreed that the scale could be effectively applied to children engaged in more directive forms of play therapy. One expert noted that play disruptions may not be observed during directive play therapy and that spontaneous play may be less likely to occur if all content of the session was directed by the therapist. One expert who identified herself as a directive Gestalt therapist noted that the scale would “absolutely apply” to her work. Another expert suggested that the scale may be applicable to children engaged in directive therapy, but that the validity and reliability of the scale may be compromised. This expert commented that it is easy for therapists to insert their own biases or expectations of the child’s trauma reactions into the therapy and that this could contaminate the process of measurement. The expert noted that the proficiency of the therapist conducting directive play therapy would have a large impact on the applicability of the scale in this context. A third expert expressed the view that the behavioral descriptors included in the current version of the Trauma Play Scale are “worded in a way that makes it sound like the therapist isn’t even in the room.” This expert expressed concern that the scale does not attempt to measure the child’s reactions to the therapist. The expert further noted that most therapists who work with traumatized children suggest intervening at some point to break up posttraumatic play—the expert wondered whether this would be coded as a play disruption according to the scale.

Finally, the experts were asked to provide any additional comments related to how the Trauma Play Scale could be improved as a measure of the play behaviors of traumatized children. One expert was enthusiastic about the scale, stating, “Good work—this is a

great project!” Another expert praised the scale as “comprehensive and well thought-out.” She stated, “obviously a lot of thought and study is involved...I have no suggestions to improve it...this is an excellent scale.” Another expert provided the following comments: “1) Great start. 2) My reactions were a bit different when thinking of single-event traumas versus chronic, cumulative traumas such as abuse. 3) Some items on their own seem much better to distinguish trauma play from ‘other’ play. 4) Suspect that it’s the combination of all or some items that will distinguish trauma play from ‘other’ play. 5) One difficulty of such a scale is that many times traumatized kids look normal, even in their play, or their behavior shifts in very subtle ways. There’s also the timing issue—often kids won’t show trauma reactions until a long time after the trauma, and such a measure would have to be administered over quite a while to accurately assess. 6) Very worthy effort in a very complex realm—should serve as a nice foundation for further testing and refinement.” Another expert expressed the opinion that the scale is “good for identifying/assessing when and if posttraumatic play is occurring, but weak for addressing the interaction of the posttraumatic play and the play therapy process.”

Overall, the experts reviewed indicated their agreement that the Trauma Play Scale as a whole, as well as its various subscales, are adequate measures of the constructs they are intended to measure. This measure of face validity supports the overall construct validity of the current version of the Trauma Play Scale.

APPENDIX H
LIST OF EXPERT REVIEWERS

The following individuals provided expert opinions regarding the face validity of the Trauma Play Scale.

John Allan, Ph.D., is Professor Emeritus of Child and Adolescent Counseling at the University of British Columbia, Canada. Dr. Allan is the author of numerous articles and books on play therapy, including *Inscapes of the Child's World: Jungian Counseling in Schools and Clinics*.

Linda Homeyer, Ph.D., is an Associate Professor at Texas State University—San Marcos. Dr. Homeyer is a Registered Play Therapist-Supervisor and is the past president of the Texas Association for Play Therapy. Dr. Homeyer is the co-author of several books on play therapy, including *Play Therapy Interventions with Children's Problems*, *The Handbook of Group Play Therapy*, and *Sandtray Therapy: A Practical Manual*.

Violet Oaklander, Ph.D., is the founder and Director of the Violet Oaklander Institute in Santa Barbara, California. Dr. Oaklander is also an adjunct faculty member of Pacifica Graduate Institute, located in Carpinteria, California. Dr. Oaklander is a Registered Play Therapist-Supervisor and has authored several articles on the Gestalt approach to play therapy. Dr. Oaklander is also the author of the book *Windows to Our Children*.

Lenore Terr, M.D., is Clinical Professor of Psychiatry at the University of California in San Francisco. Dr. Terr also lectures on law and psychiatry at the University of California, Berkeley and Davis. Dr. Terr is the recipient of the American Psychiatric Association's Blanche F. Ittleson Award for her groundbreaking research on childhood trauma. Dr. Terr is the author of numerous journal articles on therapy with traumatized children. Dr. Terr is also the author of the books *Unchained memories: True stories of traumatic memories, lost and found* and *Too scared to cry: Psychic trauma in childhood*.

Rise VanFleet, Ph.D., is the founder and Director of the Family Enhancement and Play Therapy Center in Boiling Springs, Pennsylvania. Dr. Van Fleet is a Registered Play Therapist—Supervisor and provides training and supervision to professionals engaged in play therapy and filial therapy. Dr. Van Fleet is the author of several journal articles related to play therapy as well as the book *A Parent's Handbook of Filial Play Therapy* and *Filial Therapy: Strengthening Parent-Child Relationships Through Play*.

JoAnna White, Ph.D., is the chair of the Counseling and Psychological Services department at Georgia State University in Atlanta. Dr. White is a Registered Play Therapist—Supervisor and has authored several articles related to play therapy.

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