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A MEASURE DEVELOPMENT STUDY FOR YOUTH TRAUMA EXPOSURE AND
DEVELOPMENTAL TRAUMA DISORDER

By

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Childhood trauma research and assessment are limited in addressing complex trauma. Specifically, current childhood trauma exposure measures are limited in the types of trauma queried, the ability to assess for frequency of trauma incidents, and the possibility of reporting on symptoms from multiple traumas (Hawkins & Radcliffe, 2006). Another problem with current childhood trauma practices is related to diagnosis. Most children who experience complex trauma are not diagnosed with PTSD; separation anxiety disorder and oppositional defiant disorder are most commonly diagnosed (Cook et al., 2005). Emotional and behavioral difficulties associated with complex trauma in childhood may be better captured by symptoms of a proposed diagnosis, developmental trauma disorder (DTD; van der Kolk, 2005). This measure development study included testing of an improved childhood trauma exposure measure, the Stressful Events Questionnaire (SEQ), and a measure to assess for DTD symptoms, the Developmental Trauma Disorder Questionnaire (DTDQ) in a clinical child sample. Children exposed to a variety of trauma experiences were assessed utilizing the SEQ, which includes potentially traumatic experiences and assesses for frequency of incidents, as well as utilizing the DTDQ. Results provided preliminary support for the reliability and validity of the SEQ and DTDQ in a clinical child sample. Results also provided empirical support for a broadened PTSD criterion A and support for DTD criteria. This study has implications for the diagnosis and treatment of trauma experiences in youth.

Dedication & Acknowledgements

I dedicate this work to those closest to me. Their unconditional support and patience was instrumental to this project, from beginning to end.

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Chapter 1: Introduction

Before the introduction of the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), published in 2013, the diagnostic criteria for posttraumatic stress disorder (PTSD) were under specific inquiry prior to its publication (American Psychiatric Association [APA], 2000; APA, 2013; van der Kolk, 2005). The current diagnosis of PTSD in the DSM-5 addressed many of the concerns raised by the DSM-IV TR; still, problems remain, particularly in regard to the diagnosis for children and adolescents (APA, 2000; APA, 2013; Gold, Marx, Soler-Baillo, & Sloan, 2005; Kerig & Bennett, 2012; Pynoos et al., 2009; Scheeringa, Myers, Putnam & Zeanah, 2012). Specifically, many stressful childhood experiences may not qualify as traumatic in the DSM-5, and thus, erroneous diagnoses or under-diagnosis may result. Evidence-based trauma exposure measures are keyed to the DSM and may under-identify events that youth may consider traumatic; thus, there is a need for the development of a new measure to capture these experiences. In response to criticisms of the PTSD diagnosis for children within the DSM, a new diagnosis, with a unique pattern of symptoms, was proposed—“developmental trauma disorder” (DTD; van der Kolk, 2005). Given the limited work on DTD, the present study examined the utility of a new measure to assess for potentially traumatic events and its relation to symptoms of DTD.

Defining Trauma in the DSM

The diagnosis for PTSD in the DSM-IV TR (APA, 2000) garnered much criticism across the majority of its criteria (Gold, Marx, Soler-Baillo, & Sloan, 2005). First, the diagnosis for PTSD is unique in that it requires a causal link between an external factor (criterion A1) and psychopathology (Van Hooff, McFarlane, Baur, Abraham, & Barnes, 2009). Historically, the external factor has been considered a discrete event and what qualifies as a traumatic event has

been controversial. In the DSM-III a traumatic event was defined in criterion A1 as “a recognizable stressor that would evoke significant symptoms of distress in almost everyone” (APA, 1980, p. 238). This definition was criticized for being too vague (Gold et al., 2005). The definition of a traumatic event in the DSM-IV TR was “an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others,” and includes, “learning about the unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate” (APA, 2000, p. 463). In the DSM-5, the most current definition of a traumatic event in criterion A of PTSD is “exposure to actual or threatened death, serious injury, or sexual violence,” and includes directly experiencing the event, witnessing the event, learning the event happened to a close friend/family member, or experiencing repeated/extreme exposure to aversive details of the event (APA, 2013, p. 271).

The current definition of a traumatic event in DSM-5 may not be broad enough, particularly for children and adolescents, considering that research examining stressors among youth suggest that many events which may be considered traumatic by youth are not included in criterion A (D’Andrea, Stolbach, Ford Spinazzola, & van der Kolk, 2012; Gold et al., 2005; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, & Marks, 1998; Taylor & Weems, 2009). For example, an assessment of adverse childhood experiences (ACE) among 17,337 participant patients of Kaiser Permanente demonstrated the many effects of stressful childhood experiences (Anda, Brown, Dube, Bremner, Felitti, & Giles, 2008; Felitti et al., 1998). Although the study did not assess for PTSD specifically, the authors assessed for some stressors that would be considered traumatic according to the current DSM definition (e.g., sexual abuse, witnessing domestic violence, etc.) and others that would not be recognized according to the DSM (e.g., being raised by an alcoholic parent, changing schools, etc.). The Adverse Childhood Experiences

(ACE) study included retrospective assessment for these stressors and the authors concluded that exposure to any of the ACE criteria increased one's risk for developing mental illness, disease, or adult risk behaviors (i.e., smoking, drug abuse, high number of sexual partners, etc.) and that risk increased as the number of categories of adverse childhood experiences increased (Felitti, et al., 1998). A recent study utilizing this dataset demonstrated that even decades following the occurrence of such events, ACEs increase the risk of morbidity and mortality, with diseases such as chronic obstructive pulmonary disease (COPD; Anda et al., 2008). Importantly, increased risk of COPD was only partially mediated by the presence of cigarette smoking, suggesting the significant impact of ACEs on morbidity (Anda et al., 2008).

Additionally, research has consistently demonstrated the importance of one's subjective experience to an event (i.e., intense fear, helplessness, hopelessness, etc.) in determining what individuals consider traumatic (Dewey & Schuldberg, 2013). Specifically, Dewey and Schuldberg (2013) replicated results that demonstrate peritraumatic distress to be associated with higher PTSD symptoms, regardless of whether the stressor met criteria for trauma, according to the DSM-IV. Although DSM-IV required distressing subjective experience in PTSD criterion A2, DSM-5 eliminated this criterion, which is counter-productive given that research supports the utility of using subjective experience to define traumatic experiences (Dewey & Schuldberg, 2013).

Developmental Considerations in Defining Trauma

The DSM-5 added some developmental considerations for the symptom criteria of the PTSD diagnosis, including a subtype for children age 6 and younger, which was found to identify significantly more cases of PTSD in young children (Scheeringa et al., 2012). However, the traumatic event criterion is more restricted for this subtype, as it does not include

experiencing repeated/extreme exposure to aversive details of a traumatic event (APA, 2013; Scheeringa et al., 2012), despite research suggesting that PTSD criterion A would benefit from a broader definition for children (van der Kolk, 2005). Indeed, the current criterion ignores experiences often cited as disruptions in attachment relationships as well as interpersonal aggression that does not necessarily involve life threat or threat to physical integrity, which can lead to some of the most complicated trauma-related symptoms, such as dissociation and affect dysregulation (Chaffin et al., 2006; Farina & Liotti, 2013).

Bullying. One commonly experienced childhood stressor is bullying (Dupper & Myer-Adams, 2002, p. 351). Although bullying may include physical assault, it often does not and thus is not typically considered a criterion A1 event (D'Andrea, et al., 2012; Dukes, Stein, & Zane, 2009). Van Hooff et al. (2009) demonstrated the significant posttraumatic stress responses of bullying in a study of 860 adults using the Composite International Diagnostic Interview (CIDI) to assess for lifetime exposure to criterion A1 traumatic events. The researchers also assessed for other potentially traumatic events (PTEs; e.g., child emotional abuse, being threatened without a weapon, etc.) in a telephone interview, as well as lifetime prevalence of PTSD. They found that five out of seven individuals who developed PTSD subsequent to childhood emotional abuse described bullying as the primary stressor. Ten total respondents reported bullying as their most traumatic event ever experienced (either in the childhood emotional abuse category or the other category), resulting in a lifetime PTSD prevalence rate of 50% among those who reported bullying.

Childhood bullying experiences have also been associated with other maladaptive behaviors and cognitions. Callaghan and Joseph (1995) conducted a study with 63 boys and 57 girls, between the ages 10 and 12 years, attending a north Ireland school to examine the

relationship between peer-victimization and self-concept. Youth were asked to nominate their peers as victims or non-victims of bullying. Results indicated that 58% of the sample was identified as victims of bullying. All of the identified victims scored higher on the Peer-Victimisation Scale and the Birleson depression questionnaire. These students also scored lower on measures of social acceptance, behavioral conduct, and self-esteem. Additionally, one study found that 43% of sampled children had been bullied at some point during the school year (Mynard & Joseph, 2000). Thus, broadening the definition of traumatic events to include other stressful experiences typically found in childhood warrants further investigation.

Complex trauma. Bullying and other experiences that the current traumatic event criterion has the potential to under-identify may fall under the umbrella of complex trauma. Complex trauma is defined by chronic, repeated, prolonged, and developmentally adverse traumatic experiences, including chronic verbal abuse, emotional neglect, educational neglect, dependence on an impaired caregiver, community violence, and chronic sexual or physical abuse (Spinazzola et al., 2005; van der Kolk, 2005). In addition to peer-related interpersonally stressful experiences, such as bullying, children and adolescents are also more likely than other populations to be affected by complex trauma in the home, due to their dependence on caregivers (van der Kolk, 2005). Three million children in the United States are reported to authorities each year as victims of abuse or neglect, much of which is chronic in nature rather than isolated events (van der Kolk, 2005). D’Andrea et al. (2012) also refer to complex trauma as “interpersonal trauma,” which is defined as:

the range of maltreatment, interpersonal violence, abuse, assault, and neglect experiences encountered by children and adolescents, including familial physical, sexual, emotional abuse and incest; community-, peer-, and school-based assault, molestation,

and severe bullying; severe physical, medical, and emotional neglect; witnessing domestic violence; as well as the impact of serious and pervasive disruptions in caregiving as a consequence of severe caregiver mental illness, substance abuse, criminal involvement, or abrupt separation or traumatic loss. (p. 188)

Many of the aforementioned events would not qualify as a PTSD criterion A event, despite noted adverse outcomes for affected children. Further, when considering each incident of such victimization, the combined costs of mental health care, social services, medical care, and police services, each incident of child abuse and neglect is estimated to cost \$4,379 (D'Andrea et al., 2012). One national estimate placed the cost of child abuse and neglect at \$103.8 billion in the year 2007 alone (D'Andrea et al., 2012). Clearly, complex childhood trauma exposure represents an urgent public health need.

Additive nature of multiple stressful experiences. The role of multiple, low level stressors, such as experiencing multiple moves, chronic sibling discord, witnessing frequent, non-physical parental discord, and bullying, is just beginning to be recognized in the literature and is thought to result, at times, in complex trauma reactions (Felitti, et al., 1998). Although the ACE study was instrumental in demonstrating the cumulative effects of multiple categories of childhood stressors (Felitti, et al., 1998), other research has consistently demonstrated that the number and complexity of symptoms and diagnoses increases as the number of types of stressors increase (D'Andrea et al., 2012). Briere, Kaltman, and Green (2008) retrospectively assessed for childhood trauma experiences and resulting symptomology in 2,453 college women under the age of 19. Participants were administered the Stressful Life Events Screening Questionnaire (SLESQ; Green, et al., 2000; including only childhood events) and the Trauma Symptom Inventory (TSI; Briere, 1995). Test-retest reliability for the Stressful Life Events Screening

Questionnaire was reported at .89 (Green et al., 2000). Results indicated that 44% of the sample reported no events, 27.6% reported one event, 15% reported two events, 7.5% reported three events, 3.3% reported four events, 1.3% reported five events, 0.9% reported six events, and 0.3% reported seven or eight events. Results demonstrated a linear relationship between the number of different types of childhood traumatic events (cumulative childhood trauma) and symptom complexity. It was concluded that not only is cumulative trauma common, it is also associated with a more complex symptom presentation. Thus, it is imperative that the role of interpersonal, chronic, and multiple stressful childhood experiences be considered in the definition of trauma.

Miscellaneous stressors. Aside from low-level forms of aggression such as bullying, exposure to other types of personal stressors may also contribute to the development of posttraumatic stress in youth. In Comer and Kendall's (2007) review of the psychological impact of terrorism on youth, they noted that media-based contact with terrorism (i.e., learning about violence that does not occur to a family member or close acquaintance through the media) was also associated with PTSD, even in youth 100 miles away from the terrorist attack. For instance, youth geographically distant from both the Oklahoma City bombing and the September 11 attacks reported significant distress from internalizing and externalizing symptoms as a result of the attacks, despite geographic and relational separation from the events (Comer & Kendall, 2007). Their symptomatology was best explained by their exposure to media coverage of the attacks. The current criteria may exclude individuals who experience minority-status related stressors (e.g., historical trauma; Braveheart, 2003; Gone, 2009), which will be discussed further in the Limitations in Current Research Related to Diversity Issues subsection.

The Difficulties with PTSD Symptom Criteria

Most children who do experience complex trauma, such as prolonged abuse, do not receive a diagnosis of PTSD; they are most commonly diagnosed with separation anxiety disorder, oppositional defiant disorder, or phobic disorders (Cook et al., 2005; Spinazzola et al., 2005; van der Kolk, 2005). It is clear that the field does not have an accurate classification of the resulting impacts of complex or interpersonal trauma. For instance, PTSD is somewhere between the fifth and tenth most commonly diagnosed disorder following children's exposure to trauma, and 40% of children with a trauma history have at least one other mood, anxiety, or behavior disorder (D'Andrea et al., 2012).

Furthermore, affected children often demonstrate difficulty in self-regulating across several domains (e.g., affective, behavioral, physiological, cognitive, relational, etc.), display functional deficits in attachment, anxiety, mood, eating, substance abuse, attention and concentration, impulse control, dissociation, somatization, chronic medical problems, sexual behavior and development, and academic performance (Cook et al., 2005; D'Andrea et al., 2012; Spinazzola et al., 2005). They also may experience negative self-attributions and generally present with a variety of other psychiatric disorders (Cook et al., 2005; D'Andrea et al., 2012; Spinazzola et al., 2005). This may indicate that the psychological sequelae of complex trauma are different from that of isolated traumatic events and/or that children's expression of posttraumatic stress is different than adults. D'Andrea et al. (2012) argue that the misclassification of these children as having a number of non-trauma related disorders reduces the likelihood of positive treatment outcomes.

Complex trauma prevalence and resulting symptoms. In 2002, the Complex Trauma Workgroup (CTWF) conducted a survey to assess the common experience of complex trauma as

reported by clinicians at sites belonging to the National Child Traumatic Stress Network (NCTSN; Spinazzola et al., 2005). The researchers received 62 surveys, resulting in reports on 1,699 children. The findings indicated that more than half of the child clients experienced psychological maltreatment (i.e., verbal abuse, emotional abuse, or emotional neglect) and traumatic loss. It was also reported that more than 40% of the children treated were exposed to the following: dependence on an impaired caregiver (e.g., mental illness, substance abuse, etc.), witnessing domestic violence, and sexual maltreatment or assault. Physical, medical, or educational neglect were reported in about 30% of children treated. Furthermore, one in five children had been exposed directly to war or terrorism within the United States. Additionally, less than 10% of child clients had experienced serious accidents, medical illness or disaster, suggesting that multiple or chronic exposure to trauma is more common than single-incident trauma.

The authors also found that a large percentage of reported children experienced a variety of symptoms not associated with the criteria of PTSD. For example, 50% or more of the children exhibited disturbances in affect regulation, attention, negative self-image, impulse control, and aggression or risk-taking. Further, one-third of the sample experienced problems with somatization, conduct or oppositionality, age-inappropriate sexual interest or behaviors, or avoidance, attachment, or dissociation. It is suggested that a developmentally-appropriate diagnosis that is based upon exposure to developmentally adverse interpersonal trauma, victimization, and neglect during childhood will enable therapists to identify and understand the role of childhood trauma in psychopathology (D'Andrea et al., 2012).

The role of psychotropic medications in treatment of trauma. There is limited support for the efficacy of psychotropic medication use for children (Ninan, Stewart, Theall,

Katuwapitiya, & Kam, 2014). However, psychotropic medication is a first line of defense for a number of childhood psychiatric diagnoses (Ninan et al., 2014). Given that youth with complex trauma histories often receive multiple psychiatric diagnoses, these youth are often treated with psychotropic medications (D'Andrea et al., 2012). Although such medications are often helpful in reducing symptom presentation, there is little research regarding adverse effects (Ninan et al., 2014). One study examined predictive factors of 99 pediatric patients at highest risk of adverse effects from use of psychotropic medications (Ninan et al., 2014). The authors found that adverse effects of psychotropic medications was positively predicted by the number of psychiatric diagnoses, as well as symptoms of impulsivity and uncooperativeness (Ninan et al., 2014). Youth with complex trauma histories may be at particular risk of adverse effects of psychotropic medications given the high number of assigned diagnoses and associated symptoms of impulse control difficulties and behavioral problems (D'Andrea et al., 2012; Spinazzola et al., 2005).

Research has demonstrated use of psychotropic medications in youth populations with unidentified trauma diagnoses. In a study of 69 adolescents with severe emotional disorders involved in multiple service systems, the authors assessed for trauma exposure, PTSD prevalence, and services received, among other facets of psychosocial history (Mueser & Taub, 2008). Although 28% of the sample met criteria for PTSD, the disorder was underdiagnosed in their medical records. In addition, a history of sexual abuse was related to diagnoses of depression in medical records, and 53% of those who met PTSD criteria were prescribed two or more psychotropic medications. The authors argued for routine screening of trauma exposure and PTSD in youth with emotional and behavioral disorders such that these youth receive appropriate treatments.

Developmental Trauma Disorder

Addressing the limitations of the PTSD diagnosis as effective for identifying and treating those with complex trauma histories, Herman (1992) originally described the unique symptom presentation of complex trauma survivors using the term “complex PTSD” (pp. 377). Herman argued that complex PTSD is experienced by survivors of prolonged, repeated trauma experiences and the symptom presentation differs from PTSD. First, survivors of complex trauma experience a multiplicity of symptoms, including an amplification of physiological symptoms of PTSD, dissociation, and affective symptoms (i.e., guilt and hopelessness; Herman, 1992). Second, survivors often experience changes in relationship (i.e., oscillations between intense attachment and withdrawal), changes in identity (i.e., sense of self as contaminated, guilty, and evil), and repetition of harm, which may take the form of self-mutilation or re-victimization (Herman, 1992).

Proposed criteria. Given the prevalence of chronic and multiple stressors in children’s lives, as well as concerns that the current PTSD diagnostic criteria may not accurately describe a majority of trauma-exposed youth, van der Kolk (2005) expanded upon Herman’s (1992) work by suggesting a new diagnosis for young victims of complex trauma. The proposed developmental trauma disorder (DTD) captures the consistent and predictive emotional, behavioral, and neurobiological sequelae of children exposed to multiple and/or chronic trauma experiences. DTD is categorized by exposure to one or more forms of multiple or chronic “developmentally adverse interpersonal trauma,” (criteria A1), a subjective experience of fear, betrayal, shame, etc. (criteria A1), a triggered pattern of repeated dysregulation in response to trauma cues (criteria B), persistently altered attributions and expectancies (criteria C), and functional impairment (criteria D) (van der Kolk, 2005; pp. 404). Dysregulation can occur in any

of the following areas: affective, somatic, behavioral, cognitive, relational, and self-attribution. Examples of dysregulation in these areas may include somatic complaints, re-enactment of the traumatic experience, confusion, clinging behavior, and self-hate. Examples of persistently altered attributions and expectancies include “negative self-attribution, distrust of protective caretaker, loss of expectancy of protection by others, loss of trust in social agencies to protect, lack of recourse to social justice, and inevitability of future victimization.” Lastly, functional impairment may be present in the following areas: educational, familial, peer, legal, and/or vocational (van der Kolk, 2005; pp. 404). Due to the provisional nature of this diagnosis, threshold criteria for each symptom cluster have not yet been established.

Existing empirical research on DTD. Two recent studies have provided preliminary empirical support for the validity of the DTD diagnosis. One study examined archival trauma assessments of 214 youth receiving services in an urban child treatment center who endorsed DSM PTSD criteria trauma experiences (Stolbach, Minshew, Rompala, Dominguez, Gazibara, & Finke, 2013). DTD symptom criteria were matched to symptoms on existing externalizing/internalizing symptom measures. Results indicated that youth who experienced chronic exposure to violence and/or disrupted caregiving were much more likely to endorse proposed DTD criteria than the other youth in the study. Another study utilized an experimental symptom checklist of proposed DTD symptoms to examine the validity of the diagnosis in 186 adolescents aged 18 to 19 years old retrospectively reporting on difficult childhood experiences (McDonald, Borntrager, & Rostad, 2014). The results showed that participants who endorsed higher levels of chronic and/or multiple trauma experiences were more likely to endorse symptoms on the experimental DTD symptom questionnaire than participants with low or no trauma experiences. These studies suggest that there are significant, qualitative, symptom

differences between youth exposed to complex versus single incident trauma experiences (McDonald et al., 2014; Stolbach et al., 2013) and highlight the need for a classification system that considers these differences.

Treatment implications of DTD. D’Andrea et al. (2012) suggested that a developmentally-appropriate diagnosis that is based upon exposure to interpersonal trauma, victimization, and neglect during childhood will enable therapists to identify and understand the role of childhood trauma in psychopathology. This diagnosis is argued to enhance treatment selection and outcomes. Further, having this type of diagnosis available will guide the development of specific interventions, insurance reimbursements, and future scientific inquiry. Further, D’Andrea et al. argued that the practice of applying multiple distinct comorbid diagnoses to such children “defies the rule of parsimony, obscures etiological clarity, and runs the danger of relegating trauma-informed treatment to only one disorder (PTSD) that is experienced by only a small fraction of traumatized children who are in psychiatric treatment” (p. 194). A complex trauma diagnosis will also reduce the pathologizing of complex trauma survivors who are unnecessarily labeled with many diagnoses that are stigmatizing.

DTD and DSM-5. In 2009, the NCTSN officially proposed the DTD diagnosis to APA for inclusion in DSM-5, providing supporting documentation (van der Kolk et al., 2009). The proposal argues for the inclusion of DTD based on findings that children who develop within contexts of chronic, interpersonal violence experience difficulties not captured by any diagnoses within current classification systems, receive multiple unrelated diagnoses, and subsequently receive treatments that do not recognize interpersonal trauma, lack of safety, and developmental disruptions. The authors present both published and unpublished research from multiple, independent investigators as evidence supporting the proposed diagnosis, citing the recency of

the concept as the rationale for limited published research. Included in this report is the NCTSN Survey discussed previously (Spinazzola et al., 2005). The authors argue that the supporting evidence provides support for the validity and reliability of DTD. However, the DSM-5 was published in 2013 without inclusion of DTD (APA, 2013).

Renz (2012) reported on the APA decision to not include DTD in DSM-5 and quotes Matthew Friedman, the DSM subcommittee leader and director of the National Center for PTSD:

“The consensus is that it is unlikely that DTD can be included in the main part of DSM-5 in its present form because of the current lack of evidence in support of the diagnosis and the lack of prospective testing of your proposed diagnostic criteria.” (pp.12).

Renz explained that the subcommittee did not argue that the existing evidence was inaccurate, but rather that there was not enough agreement in the field to warrant its utility. It is argued that the kind of empirical testing required by DSM committees is difficult to do without substantial funding, and this funding is difficult to obtain without DSM recognition. The author notes that one of the field trials for DTD conducted by Dr. Jacob Ham lost funding once it was announced that DTD would not be included in DSM-5.

Although the subcommittee’s argument was that there is not enough agreement in the field regarding the clinical utility of DTD, existing research suggests otherwise. Ford et al. (2013) conducted an internet survey with 472 self-selected medical, mental health, counseling, child welfare, and education professionals who quantitatively evaluated the clinical significance of DTD. Participants were asked to make qualitative ratings of DTD, developmental trauma exposure, and PTSD symptoms in reference to four clinical vignettes. The authors found that clinicians viewed DTD criteria to be as clinically useful as PTSD criteria. In addition, participants rated DTD as discriminable from PTSD and not fully accounted for by any other

disorder. Lastly, clinicians rated the vignettes as being obstinate to existing evidence-based psychotherapies. Ford et al. (2013) concluded that agreement in the field regarding clinical utility of DTD warrants inclusion of the diagnosis in formal diagnostic systems that would permit field testing of evidence-based treatments for youth with complex trauma histories.

Limitations in Current Research Related to Diversity Issues

Research has suggested that ethnic minority youth may be at greater risk for experiencing trauma and resulting psychological sequelae (de Arrellano & Danielson, 2008). A study by Hatcher, Maschi, Morgen, and Toldson (2009) examined the difference between trauma exposure and outcomes in White and Black youth. Using a longitudinal assessment of 190 children, aged 7 to 12 years, the authors examined the role of ethnicity in the development of internalizing and externalizing symptoms following maltreatment. The results indicated that nearly 36% of the sample was maltreated. Additionally, the authors found that while race did not determine whether the child developed internalizing vs. externalizing symptoms, Black maltreated youth had significantly higher rates of externalizing and internalizing symptoms.

Diversity and trauma exposure. In addition to differences in the expression of posttraumatic stress across ethnic groups, there is evidence that children belonging to different ethnic groups may be exposed to different forms of trauma. Immigration trauma is a form of minority-specific trauma exposure that is not typically accounted for in current measures. For example, de Arrellano and Danielson (2008) found that 17% of children from immigrant families experienced a traumatic event while immigrating to the United States, and children only reported these events when asked directly about the immigration experience. de Arrellano and Danielson (2008) also suggested that trauma exposure measures be expanded to include culturally-specific

traumatic events like political trauma, immigration-related crime, and events related to discrimination and racism (de Arrellano & Danielson, 2008).

Trauma considerations for Native populations. Research has indicated that American Indians/Alaska Natives (AI/ANs) may be at a higher risk for developing trauma-related mental health problems (Beals et al., 2005). Beals et al. (2005) conducted a study designed to compare the prevalence of mental health disorders in the AI/AN population as compared to the results of the National Comorbidity Study (NCS), of which AI/AN only comprised 1% of the sample. In this study, 3,084 tribal members from two tribes, aged 15-54 years, were interviewed using a modified version of the University of Michigan Composite International Diagnostic Interview. The results of the study indicated that both of the AI/AN samples had higher rates of lifetime prevalence PTSD than NCS counterparts (4.4% of the Southwest Tribe and 3.6% of the Northern Plains Tribe). Additionally, fewer than 30% of the sample reported seeking services for mental health problems (Beals et al., 2005). Therefore, AI/ANs may be at higher risk for developing PTSD and engage in less frequent help-seeking behavior. Pole, Gone, and Kulkarni (2008) report that AI/ANs may be more likely to be exposed to violence than other ethnoracial minority groups.

The historical trauma construct. Trauma exposure in Native American groups is likely to be further complicated by historical trauma, the intergenerational transmission of mental health vulnerability that was a consequence of colonization (Gone, 2009; Pole et al., 2008). In effort to understand the significant historical trauma impacts on AI/ANs, researchers have posed explanations such as the adverse social and physical environments within which many AI/ANs live (Manson, Beals, Klein, & Croy, 2005). Others have posed integrative theoretical explanations which argue that the high rates of traumatization among AI and AN communities is

thought to be a consequence of the occurrence and interaction between historical trauma, internalized oppression, and compounded community trauma (Deters, Novins, Fickensher, & Beals 2006). Historical trauma is a term used to conceptualize the transmission of trauma and grief across generations (Yellow Horse Brave Heart, & DeBruyn, 1998). Internalized oppression is the process by which oppressed groups take in or believe the messages, stereotypes, and hatred that the dominant or privileged group demonstrates to those in oppressed groups (Jun, 2010). Finally, compounded community trauma is defined as prolonged exposure to multiple types of community and interpersonal trauma events (Deters et al., 2006). These three factors are thought to influence one another, such that historical trauma contributes to internalized oppression, which contributes to compounded community trauma, which then contributes to historical trauma (Deters et al., 2006).

Another factor further compounding historical trauma is the fact that much of what AI/ANs experience may be considered disenfranchised grief, which is defined as grief that cannot be publicly mourned because it may not be acknowledged by members of the out group (Deters et al., 2006). Stereotypes of AI/ANs perpetuate the idea that AI/ANs do not demonstrate emotional responsiveness, thus a lack of recognition of their pain and trauma, or disenfranchised grief (Yellow Horse Brave Heart & DeBruyn, 1998). Evans-Campbell (2008) argues that events perpetuated on AI/AN communities are rarely acknowledged, and thus, individual responses to historical trauma are met with avoidance, disbelief, and indifference.

Symptoms of historical trauma. Some of the symptoms of historical trauma resemble the symptoms of PTSD (Gone, 2009). However, this type of trauma would not meet the diagnostic criteria for a traumatic event in the DSM-5 (APA, 2013). Additionally, Evans-Campbell (2008) argues that the PTSD diagnosis does not capture all of the symptoms associated

with an historical trauma response, nor does it consider the additive effects of multiple traumas or the transmission of trauma between generations. Thus, subsuming historical trauma under PTSD is inappropriate. There is still a paucity of empirical research outlining precise and consistent behavioral criteria of the historical trauma response (Evans-Campbell, 2008; Whitbeck, Adams, Hoyt, & Chen, 2004). However, we know that the effects of historical trauma take place at three levels: the individual, the family, and the community (Evans-Campbell, 2008). At the individual level, symptoms reflect a number of psychological disorders, such as PTSD, depression, and anxiety (Evans-Campbell, 2008). Individual symptoms also include: anxiety and impulsivity, grief, intrusive memories, withdrawal and isolation, guilt, elevated mortality rates from cardiovascular disease, suicide and other forms of violent death, and perceived obligation to share in ancestral pain (Yellow Horse Brave Heart & DeBruyn, 1998). At the familial level, families may demonstrate impaired communication and parenting stress. Lastly, effects on the community include the loss of language, the loss of land, loss of traditional and spiritual practices, and the loss of children to boarding schools and the adoption era (Evans-Campbell, 2008). Additionally, it is likely that community-wide trauma response includes “social malaise, weakened social structures, and high rates of suicide” (Evans-Campbell, 2008; p. 328). Given that this study was conducted in Western Montana and Oklahoma, it was hoped that AI/AN youth would be well represented in the sample.

Assessment of Trauma Exposure

General limitations. Generally, research in the trauma field has focused on the sequelae of traumatic events given a specific population of survivors (e.g., specific disasters, specific combat experience, rape survivors, etc.; Goodman, Corcoran, Turner, Yuan, & Green, 1998). Thus, measures for trauma-related distress have focused solely on the symptoms of PTSD, often

neglecting the exposure (criteria A1) component. The measures used to assess the specific exposure events, mentioned above, are developed by researchers to measure these discrete types of traumatic events. This is contraindicated given research suggesting that it is common for people to experience multiple traumatic events, the experience of one traumatic event affects the interpretation/impact of subsequent traumatic events, and the effects of multiple traumatic events are likely to be additive.

Given that repeated, severe stressors that occur early in life are thought to contribute to borderline personality disorder, some dissociative disorders, the proposed DTD, and complex PTSD, it is surprising that such exposure is not routinely assessed for in clinical and research settings (Carlson et al., 2011). It has been found that 71% of those presenting for treatment in an outpatient setting had not disclosed major physical or sexual assault to a previous therapist (Carlson et al., 2011). Of note, the measures are often long and generally do not assess for the emotional impact of events. Additionally, most measures require reading a large number of words and are of a high reading level. Carlson et al. (2011) argue that a measure that assesses for exposure to stressful events as well as severity and duration of emotional responses would better equip therapists in formulating diagnoses and treatment plans.

Assessment considerations for youth. With regard to children specifically, Stover and Berkowitz (2005) argue that standardized measures for the detection of trauma exposure and trauma symptoms is paramount considering the developmental outcomes of untreated trauma symptoms. However, standardized measures for the diagnosis of mental health disorders in children are not up to speed with adult measures (Stover & Berkowitz, 2005). Some of the challenges of assessing trauma exposure and symptoms in young children include the difficulty with which young children express inner experiences and feelings with language and the limits

of caregiver-report (i.e., caregivers may not be aware of child's exposure to trauma and tend to underestimate internalizing symptoms; Stover & Berkowitz, 2005). Zolotor et al. (2009) argued for a universal tool to assess prevalence rates of child abuse and neglect cross-nationally. Given that child abuse often occurs within the family context or other relationships with authority figures, it is necessary that the victim be asked directly in order to get accurate reporting rates (Zolotor et al., 2009). The wide-ranging and long-lasting impact of exposure to violence in childhood warrants the development of an exposure measure so that therapists can identify at-risk children and develop intervention and prevention strategies (Berent, et al., 2008). An efficient and effective tool for child service providers (schools, preschools, clinics, etc.) to identify children exposed to violence is described as an urgent need (Berent et al., 2008).

Current measures. Amaya-Jackson, Socolar, Hunter, Runyan, and Colindres (2000) reviewed the various methods for assessing children's exposure to trauma and noted that variations in the way that interviews are constructed affected the prevalence rates of sexual abuse in different adult populations. For example, face-to-face interviews tend to yield higher prevalence rates than pencil-and-paper questionnaires. Further, the use of several questions to ask about specific acts of sexual abuse also resulted in higher rates of self-report. However, the authors argued that these methods had not been tested within child populations.

Closed-ended items. Amaya-Jackson et al. further reviewed 14 studies that assessed for physical/sexual abuse in children using face-to-face interviews, telephone interviews, interview-administered questionnaires, and anonymous self-administered surveys. The authors found that the format of questions varied. For targeting physical violence, some methods used only a few general questions, while others used longer lists of specific types of behavior related to physical violence (e.g., "Have you been attacked with a weapon, such as a knife, bottle, or chair, by

someone other than your mother or father?”). Further, the surveys also varied in whether or not they assessed for perpetrator, time frame, frequency of incidents, and severity of the event. Most of the available surveys that assessed for sexual abuse used fairly specific questioning; however, some were limited in the breadth of sexual abuse forms included (i.e., fondling may not have been included). Based upon these findings, Amaya-Jackson et al. made several recommendations including that constructs of interest should be clearly defined first. Then the child should be asked about specific behaviors included in that definition. Finally, a “catch-all” question should be provided at the end to be inclusive of other events not traditionally considered or experienced.

Open-ended items. In contrast to studies that examined the question format for events typically considered when assessing PTSD, studies that assessed for low-level trauma experiences typically used an open-ended or less behaviorally-specific format (Costello, Erknali, Fairbank, & Angold, 2002; Saylor, Macias, Wohlfeiler, Morgan, & Awkerman, 2009; Taylor & Weems, 2009). Saylor and colleagues (2009) addressed the difficulty with which the literature has come to define traumatic events for children. Thus, the authors chose to refer to the construct as potentially traumatic life events (PTLE), and used the Pediatric Emotional Distress Scale (PEDS) to assess for trauma exposure and associated symptoms. The exposure question on the PEDS asks parents: “If your child has had a major trauma or stress in the last year, please describe it. Then rate their behavior with regard to the trauma/stress.” The authors found that 43% of participants reported PTLEs.

Taylor and Weems (2009) also used an open-ended format and asked a community sample of youth to report events they considered traumatic. The authors utilized the Child PTSD checklist, which assesses for self-reported traumas and PTSD symptoms. This measure assesses for exposure in an open-ended format by stating: “Many kids go through things that are very

upsetting or very frightening. We would like to know about them and how you felt about it. They might have happened recently, or they might have happened a long time ago. Can you tell us if anything happened to you that was very scary or frightening?” Children can report up to three traumatic events. The authors found that 61% of their sample reported low level trauma experiences.

Given the differences in item format for trauma exposure, inclusion of both open-ended and closed-ended formatting on trauma exposure questionnaires is recommended. Further, the pilot testing for the present study supported inclusion of both open-ended and closed-ended questions, as participants (ages 18-19) reported a greater number of events with closed-ended questions but reported events that had not been assessed for on the open-ended questions (McDonald et al., 2014). The next logical step is to determine whether this finding holds true for children, which is assessed in the present study.

Measurement considerations for complex trauma. Despite the high prevalence of various traumatic experiences in childhood and the need for measuring and understanding exposure to stressors that may be potentially traumatic, as well as complex trauma, current established self-report questionnaires assessing trauma exposure in children and adolescents typically do not address chronic trauma or the capacity to report on symptoms for multiple traumas (Felitti et al., 1998; Hawkins & Radcliffe, 2006; Joseph, 2000). Although some structured interviews assess for frequency of traumatic incidents, it is important that a self-report measure be available to assess for frequency of incidents as well. Self-report measures are a key component of multi-method assessment, they provide a less time-consuming and expensive means to assess for trauma, and some individuals may feel more comfortable responding openly to a questionnaire than to an interviewer (Nader, 2008). Both structured interviews and self-

report trauma exposure measures assess for traumatic experiences as defined by the DSM, but typically require the informant to choose the most distressing event, and relate associated symptoms to only that event (Hawkins & Radcliffe, 2006; Steinberg, Brymer, Decker, & Pynoos, 2004). Aside from the potential challenges in determining the worst out of more than one distressing event, this has serious implications in that valuable clinical information may not be reported if the respondent is only allowed to report the symptoms related to one event.

Suggestions for a new measure. Given that the effects of experiencing multiple stressors are likely to be additive, it seems ill considered not to allow participants to include all distressing events experienced when reporting on symptoms (D'Andrea et al., 2012; Felitti et al., 1998; Hawkins & Radcliffe, 2006). Thus, it is suggested that the development of new self-report trauma measures expand upon current measures by permitting the respondent to report on multiple distressing experiences and prolonged (complex) trauma experiences (Hawkins & Radcliffe, 2006). Additionally, normative samples most used to validate commonly used trauma assessment measures typically have not been representative of ethnic minority populations (Hawkins & Radcliffe, 2006). Given that there are likely differences across ethnic groups in the types of trauma experienced, symptom expression, and interpretation of trauma measure items/questions, it is argued that trauma exposure measures be developed for sensitivity to diversity-related stressors (de Arrellano & Danielson, 2008; Hawkins & Radcliffe, 2006). The development of such a measure was found to be useful in a sample of 18-19 year olds (McDonald et al., 2014), and this study assessed for the utility of such a measure with a sample of children.

Trauma Exposure Measure Development

There are a number of challenges to face when developing a measure to assess for exposure to traumatic events, and these include: definitional concerns, assessment methodologies, reporting consistency, and incident validation. Indeed, current established measures vary greatly in regard to definitional boundaries of traumatic events, the degree of follow-up information in relation to each event, the time needed for completion, response formats, and availability of psychometric support. Given that assessment of exposure to trauma is a complex measurement issue, the establishment of sound psychometrics is necessary (Goodman et al., 1998). The following is a review of important recommendations put forth by researchers for measure development and subsequent psychometric evaluation.

Haynes, Richard, and Kubany (1995) describe psychological assessment as an integral component of clinical judgment. Haynes et al. (1995) argue that psychological assessment assists in the development of causal models for psychological disorders, the design of intervention programs, the prediction of future behavior, and the evaluation of treatment progress. However, assessment instruments are only useful in that they demonstrate construct validity (i.e., the degree to which an assessment instrument measures the targeted construct). Content validity is one component of construct validity, and it is defined as, “the degree to which elements of an assessment instrument are relevant to and representative of the targeted construct for a particular assessment purpose” (Haynes et al., 1995; p. 238). Content validity is a quantitatively based judgment, thus it is dimensional in nature, rather than categorical. Further, the relevance and representativeness indices can only be evaluated so much as the assessment instrument has an established purpose. For instance, relevance and representativeness are going to be different for a screening measure vs. a measure used for treatment planning. The relevance of an assessment

instrument is the extent to which the elements of the measure are appropriate for the target construct and the purpose of the assessment. The representativeness of an assessment instrument is the extent to which its elements are proportional to the facets of the targeted construct (Haynes et al., 1995).

Haynes et al. (1995) also outlined appropriate methods for establishing construct validity. First, researchers must specify the construct to be targeted, followed by specification of what is to be included and what is to be excluded among the following domains: factors of the construct to be covered, dimensions (e.g., rate, duration, magnitude), mode (e.g., thoughts and behavior), temporal parameters (i.e., response interval and duration of time-sampling), and situations. Further, the purpose of the instrument must be specified. Next, the assessment method, which matches the targeted construct and purpose, must be selected. Following this step is the selection and generation of items, which will be derived from rational deduction, clinical experience, theories relevant to the construct, empirical literature, other assessment instruments, suggestions by experts, and suggestions from the target population.

Once items have been generated, they will then be matched to the facets and dimensions established. The structure, form, topography, and content of each item should then be examined, with particular attention to the appropriateness for the facet of the construct, consistency and accuracy, specificity and clarity of wording, and definitions. Redundant items can be removed at this point. Once items have been fine-tuned, response formats and time-sampling parameters should be established. Next, the development of instructions to participants should match the domain and function of the assessment instrument. It is then suggested to have experts review the items according to the aforementioned steps. Next, the target population should take the measure and researchers should evaluate the quantitative and qualitative results. After review, the

measure should be modified accordingly. Finally, researchers can perform psychometric evaluation, using factor analysis and other relevant methods (Haynes et al., 1995).

In addition to construct validity, important psychometrics to establish when developing a new measure include: convergent validity, criterion-referenced validity, discriminant validity, test-retest reliability, internal consistency, and internal structure (Ayearst & Bagby, 2010; Haynes, Nelson, & Blaine, 1999). Convergent validity is the extent to which scores from two measures assessing the same construct covary (Haynes et al., 1999). The strength of the correlation is directly related to the overlap between the intended constructs being measured (Haynes et al., 1999). Criterion-referenced validity is the extent to which assessment scores reflect scores from previously validated instruments or non-test criteria, such as prevalence rates and expected gender differences (Haynes et al., 1999). Discriminant validity is the degree to which the scores of an assessment measure are *not* related to the influence of other constructs (Haynes et al., 1999). Thus, discriminant validity is demonstrated by low correlations between the assessment measure and a measure of an unrelated construct.

Test-retest reliability is the extent to which scores remain stable over a period of time, and it is usually measured by correlations or scores of agreement between scores of the instrument administered at different times (Haynes et al., 1999). Internal consistency is an indicator of how similar items of a scale measure the same content. In other words, it is the degree of consistency of items within the measure (Haynes et al., 1999). High, but not perfect, internal consistency is desirable (i.e., coefficients ranging from 0.70 to 0.95; Berent, et al., 2008). Internal structure is the extent to which the elements of the assessment instrument covary in predictable ways that are consistent with theory (Haynes et al., 1999). These psychometric properties are derived from Classical Test Theory (CTT), which has been the standard for test

development since the explosion of psychological testing in the 1930's (Ayearst & Bagby, 2010). Each of these psychometric properties will have an important role in evaluating current childhood trauma exposure measures and in the development of a new childhood trauma exposure measure.

Review of Existing Trauma Exposure Measures

Child abuse screening measure. Zolotor et al. (2009) developed the International Society for the Prevention of Child Abuse and Neglect (ISPCAN) Child Abuse Screening Tool Children's Version (ICAST-C), including events that were potentially victimizing, rather than relying on standard definitions of abuse and neglect. The initial instrument included 82 questions assessing for demographics and potential victimization at home, school, or work. The creators utilized a number of established measures to develop a comprehensive list of victimization types across cultures. The categories of victimization included: physical abuse, physical discipline, sexual abuse, and psychological abuse at home and sexual assault, physical assault, and psychological victimization at school or work. Given the difficulty with ethics surrounding mandatory reporting of child abuse, researchers received clearance to collect instrument data anonymously (Zolotor et al., 2009).

Participants included 571 children, over the age of 12, dispersed amongst Columbia, India, Russia, and Iceland. Sample sizes across countries ranged from 110 to 122. Zolotor et al. (2009) utilized Cronbach's alpha to assess reliability after organizing each question into categories according to types of victimization, forming scales. Cronbach's alpha ranged from .69 (fair reliability) for the violence exposure scale to .72-.86 (good to very good reliability) for all other scales. To assess construct validity, a mean of the items of each subscale was calculated and bivariate analyses were conducted to examine predictable relationships between

demographics (age and gender) and reported experiences. As predicted, boys reported greater rates of physical victimization in the workplace whereas girls reported greater rates of sexual victimization at school and in the workplace. Further, older children reported more exposure to violence and psychological victimization at home, physical victimization at home and at work, and psychological victimization at school and work, which were the predicted findings.

The authors also evaluated missing data as an indicator of questions that children either do not understand or feel uncomfortable answering. Sexual abuse questions had the highest rate of missing data at up to 1.8%. The ICAST-C is concluded to be a useful child abuse surveillance and research tool available for researchers and policy makers hoping to better understand child victimization throughout the world. There were no reports of adverse responses from the 571 children assessed, and preliminary psychometrics were promising, albeit limited. Future research should consist of extensive evaluation of construct validity and test-retest reliability (Zolotor et al., 2009).

Exposure to violence measure. With the intent of developing a single instrument that would assess youths' exposure to violence in the media, home/community, and school, Joshi and Kaschak (1998) developed and assessed the psychometric properties of the Exposure to Violence & Trauma Questionnaire. The sample included 702 students between the ages of 13-19, attending a school in suburban Maryland. Of the original participants, 120 were randomly selected to complete the questionnaire a second time three weeks later in order to establish test-retest reliability. The items were developed by reviewing relevant research. After several meetings, the items were edited, revised, and categorized. The resulting questionnaire consisted of 81 questions, assessing for degree of exposure and psychological responses to the exposure. Participants completed the survey anonymously. The mean age was 15.6, and the sample was

55% Black, 25% European American, 10% Asian American, 2% Latino American, 5% mixed, and 3% other. Internal reliability was obtained by comparing performance on two subtests of items within a scale. In this study, odd questions were compared with even questions and the reliability coefficient, Cronbach's alpha, was 0.74. Test-retest reliability resulted in an overall correlation coefficient of .95. Joshi and Kaschak concluded that the questionnaire is a reliable tool for measuring adolescents' exposure to violence; however the measure was not adapted for use with other youth age groups.

Parent report measure. Berent et al. (2008) developed the Parent Report of Children's Experiences (PRCE) to address well-known differences between parent and child reporting. Berent et al. refined and clarified the violence items from various measures to create the PRCE. The authors also added items suggested by current research and practice. The PRCE is comprised of fourteen items, five of which assess exposure to violence in the following domains: family, neighborhood, other children, television and movies, and video games. Participants were recruited from an initiative funded by the Office of Juvenile Justice and Delinquency Prevention, which identifies young children exposed to some degree of violence to reduce the impact of such exposure. Parents of children who presented for program services were administered the PRCE and the Traumatic Events Screening Inventory—Parent Report Revised (TESI-PRR; Ghosh-Ippen et al., 2002) to establish construct validity of the PRCE.

Three factors emerged in factor analysis: symptoms, environmental exposure, and media exposure. Significant inter-factor correlations were found between all factors. The PRCE as a whole has an alpha of 0.82. In terms of factors, the alphas are 0.79 for the symptoms factor, 0.70 for the environmental exposure factor, and 0.76 for the media exposure factors. Thus, the measure demonstrates high internal consistency. In terms of test-retest stability, the mean length

of time from pre-test to post-test was 88.5 days. The authors noted that this is not a pure measure, given that many participants participated in an intervention between the pre- and post-tests, affecting results. However, pre- and post-test correlations for the sample were 0.58 for symptoms, 0.52 for environmental exposure, and 0.67 for media exposure. It was concluded that these moderate to strong correlations indicate that participants' responses were stable over time (Berent et al., 2008).

The authors utilized correlations between the TESI-PRR and the PRCE to measure validity. The TESI-PRR total score and the PRCE total score had a significant correlation ($r = 0.52, p < .00001$), indicating that the instruments measure similar, but not identical constructs. The authors concluded that the PRCE is a reliable and valid tool for identifying children who have been exposed to violence. They argued for further study in diverse geographic settings, socioeconomic backgrounds, clinical and community samples, and for self-report by school-aged children. Importantly, the PRCE did not include items relevant to other types of traumatic experiences beyond exposure to violence in various settings (Berent et al., 2008).

Adult retrospective reports. A number of trauma exposure measures that are designed for adults' retrospective report of childhood trauma have been developed. Carlson et al. (2011) sought to develop the Trauma History Screen (THS), a brief measure with a simple format and low reading level to assess exposure to high magnitude stressors, traumatic stressors, and persisting posttraumatic distress. The THS was tested in five samples: homeless veterans in a residential rehabilitation program, hospital patients with traumatic injuries and their family members, female university students, and adults and young adults from a community. To ensure content validation, the authors followed a systematic procedure wherein they specified the functions of the measure, specified the target domains to be assessed and their dimensions,

specified the methods used to create the measure items, and explained how the structure and instructions correspond with the domains assessed. In creating the measure, the authors reviewed current available measures to determine the types of stressors included. Additionally, rational deduction, clinical experience, and suggestions from experts in the trauma field were considered. In their definition of what constitutes traumatic stress, the authors included events that were sudden, had an element of uncontrollability, and had a strong negative valence.

In order to determine test-retest reliability of the measure, participants were re-tested over 1 or 2 week time periods (Carlson et al., 2011). Test-retest reliability was measured by calculating the absolute percentage agreement and the kappa coefficient of agreement. The authors did not measure internal reliability, as it is argued that internal reliability is not expected to be high on measures of experiences. To investigate the validity of reports, the authors compared the rates of reported exposure to the established rates (derived from another exposure measure) from similar populations. Carlson et al. (2011) concluded that the results from the four studies provide strong support for the reliability and validity of the THS. Overall, median rates of absolute agreement for high magnitude stressors ranged from 85% to 96% and median kappa coefficients for individual items ranged from .61 to .77. In terms of validity, the authors conclude that reported rates are similar to those found in larger epidemiological studies. The authors also argue that the results provide strong support of convergent validity, given correlations with the TLEQ.

In another measure development study for the retrospective reporting of childhood trauma, DiLillo et al. (2010) developed the Computer Assisted Maltreatment Inventory (CAMI), which assesses for physical abuse, sexual abuse, psychological abuse, neglect, and exposure to domestic violence. The CAMI utilizes behaviorally-specific language to assess for abuse types,

which has been supported as the preferred method (resulting in higher reporting rates) both theoretically and empirically. DiLillo et al. asserted that the CAMI is useful only in that it demonstrates strong test-retest and internal reliability, and criterion-related validity. In order to assess social desirability, the CAMI was examined in relation to measures of social desirability, the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1994) and the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960). Participants included 1398 undergraduate students from three geographically diverse universities. Corrected item-total correlation for these abuse types ranged from .18 to .48 for CSA, .16 to .37 for CPA, and .22 to .65 for exposure to IPV. In order to examine test-retest reliability, 281 of the original participants were re-administered the CAMI two to four weeks after the initial administration. Kappa statistics ranged from .54 to .80, which is considered to reflect “good agreement.” Kappa statistics for child sexual abuse ranged from .65 to 1.00. For child physical abuse, kappa statistics were above .60, with the exception of duration with a kappa statistic of .45. Exposure to IPV, kappa indicators were above .60, with the exception of level of exposure (.42) and required medical attention (.46). The correlations for overall psychological abuse and neglect score across administrations indicated high test-retest reliability. The correlation for psychological abuse was $r(221) = .84, p < .001$, and the correlation for neglect was $r(227) = .81, p < .001$. In terms of criterion-related validity, all abuse severity scores were significantly and positively correlated between the CAMI and the CTQ (r s ranged from .12 to .79, $M = .46, SD = .20$).

Along similar lines, the Stressful Life Events Screening Questionnaire (SLESQ) was developed as a 13-item self-report screening measure designed to assess lifetime exposure to a range of traumatic events (Goodman et al., 1998). The items were constructed by adhering strictly to the DSM-IV Criterion A1 definition to develop 11 specific event categories and two

general categories for events that might meet Criterion A1. The categories were derived from a review of available exposure measures that either target specific events or a range of events and subsequent pilot testing of the SLESQ. The first pilot study examined responses on the SLESQ by 265 undergraduates, which aided the authors in further refining items. The final version of the SLESQ was assessed for specificity (whether or not events met Criterion A1), reliability, and validity using a sample of college students. In order to establish concurrent validity, prevalence rates were compared to rates from other studies examining the prevalence of traumatic events (using all responses, whether or not they met the cut-off to determine specificity). Test-retest reliability was used to establish the SLESQ's temporal stability within each event category and overall. To examine sensitivity and convergent validity, a subset of respondents were administered an interview two weeks after taking the SLESQ and examined whether or not they provided the same responses.

Participants included 202 male and female college students from a large eastern university (Goodman et al., 1998). Of the original sample, 140 returned for the follow-up administration. In terms of concurrent validity, expected gender differences were found (women more likely to experience sexual assault, men more likely to experience physical assault). Additionally, prevalence rates in this study were consistent with prevalence rates from larger epidemiological studies. For test-retest reliability, the authors found that the overall correlation of events reported at time 1 and time 2 was .89. The median kappa was .73. The general, or "other," items had the lowest kappas (.25 and .40). For those who completed the interview at follow-up collection, the correlation between total number of events reported at time 1 and time 2 was .77. Kappas ranged from .26 (witnessed death/assault) to .90 (life threatening illness). As the SLESQ was designed for specificity, it is suggested to use a different measure for researchers

interested in more liberal definitions of trauma. Goodman et al. (1998) argue that the SLESQ has very good test-retest reliability and good convergent validity.

Limitations of current measures. Although a number of measures have been developed in the realm of trauma exposure, there is a paucity of child self-report measures that assess for a wide range of PTEs. Additionally, the extent to which these measures vary in terms of question format, response format, and details collected substantiates the need for a ‘gold standard’ in the assessment of childhood trauma exposure. Given past research and limitations of established trauma exposure measures, it is important that the impact of complex trauma and exposure to multiple traumas be assessed in children and adolescents from diverse ethnic backgrounds, including assessment for exposure to historical trauma. Furthermore, the role that less severe stressors play in the development of posttraumatic stress symptoms needs to be examined. It is possible that many children currently experiencing common symptoms of PTSD are not receiving the diagnosis, simply because they were not exposed to a traditionally-defined traumatic event. Further, ethnic differences in trauma exposure and reporting styles require further investigation. In the creation of such a measure, adherence to guidelines on establishing sound psychometric properties is paramount. Finally, youth exposed to multiple or complex stressors may present with posttraumatic stress in different ways than what is typically assessed. This study sought to address these limitations by developing a new self-report childhood trauma exposure measure.

Pilot Testing

Prior to initiating the current study, and as a first step in the development of a comprehensive trauma exposure measure that addresses the limitations of current measures, the investigator team developed the Potentially Traumatic Experiences Questionnaire (PTEQ) and

pilot tested it with a community sample of 18- and 19-year-olds (McDonald et al., 2014). In order to create the PTEQ by developing items that comprehensively assessed PTEs, the investigator team followed the systematic procedure suggested by Haynes et al. (1995) to ensure content validation.

First, the investigator team independently developed a list of items that covered 25 pre-determined categories of PTEs not typically considered as criterion A1 events. These categories were created inductively via utilizing relevant research in PTEs regarding events that youth may consider traumatic. Both sets of items were submitted to a panel of trauma experts and graduate students enrolled in a doctoral program. The panel was asked to match items to their relevant category in order to evaluate the content domain. Based on this process, items were created and refined. Next, the panel of trauma experts and graduate students were asked to evaluate items for readability. Items were narrowed or expanded and edited based on the panels' suggested revisions, resulting in 26 items. The final list of questions resulted in the PTEQ, which was administered to participants in the pilot testing, described below. The response set required participants to identify whether or not the experience occurred, the frequency of incidents, and at what ages the experience first occurred.

The PTEQ was pilot tested with 18- and 19-year old undergraduate students from a mid-sized, northwestern university in order to refine the measure before administration to child and clinical populations. In addition, two item formats were used in order to explore potential differences in reporting: closed-ended and open-ended questions. Second, three questions describing DTD symptom clusters defined by van der Kolk (2005) were also developed and administered. Participants were 186 eighteen- and nineteen-year-olds who were asked to report retrospectively on their difficult childhood experiences. Half of the sample was asked to

complete the PTE questionnaire with the closed-ended item format (26 PTE categories), while the other half was asked to complete only open-ended items (which were later coded for PTE categories that matched the closed-ended items, as well as for novel categories). They were also asked to complete a combination of two established measures of trauma exposure, in order to control for the degree of trauma exposure for criterion A1 events. Based on past research, it was hypothesized that participants who completed the PTE questionnaire with the open-ended item format would report significantly more stressful experiences.

It was also predicted that the participants who reported multiple or chronic stress events would be more likely to endorse symptoms associated with DTD, regardless of item format. In order to assess for DTD symptom criteria (van der Kolk, 2005) and their relation to trauma exposure, the authors independently created questionnaire items reflecting the symptom clusters of DTD (described above; McDonald et al., 2014). These questions were then evaluated by the same panel of trauma experts and graduate students, described above. Three experimental questions emerged, assessing for symptom criteria B, C, and D of DTD, which cover a repeated pattern of dysregulation in response to trauma cues and difficulties with altered attributions, and functional impairment, respectively. Criterion A (exposure), as described by van der Kolk (2005), was assessed with the PTEQ and other established trauma exposure measures.

Contrary to the hypothesis, participants who completed the PTE questionnaire with closed-ended items reported more PTEs than participants who completed the closed-ended questionnaire; though, participants did identify a number of events as traumatic on the open-ended questions that were not initially included on the closed-ended version. In addition, results supported the second hypothesis in that participants' reported frequency of trauma incidents was significantly predictive of DTD symptoms. Pilot testing provided valuable information for the

present study in that the current study will primarily use refined items from the closed-ended format of the PTEQ. However, given that a number of less common PTEs were reported on the open-ended version, the present study will include a number of open, 'catch-all' items to ensure that some less commonly occurring PTEs are not being missed in the assessment. Additionally, the support of DTD in the pilot study substantiated further testing with child and clinical populations (McDonald et al., 2014).

Current Study: Research Questions

The primary purpose of this measure development study was to test a new childhood trauma exposure measure, as well as the first measure for assessing for DTD symptoms, in a clinical sample of children. The trauma exposure measure included non-criterion A events and the ability to report on how many times/how often the child experienced the event (i.e., frequency of incidents). Thus, the investigator team sought to determine if the use of a newly developed childhood trauma exposure measure improves identification of traumatized youth. To evaluate this question, preliminary psychometric properties on this measure were analyzed. Specifically, this study examined internal reliability, test-retest reliability, construct validity, convergent validity, and discriminant validity. Additionally, the measure was evaluated for the average time of completion, readability, and general comprehension. This study also examined internal consistency, test-retest reliability, and convergent and discriminant validity of the measure developed to assess for DTD symptoms.

Further, the current study explored the possibility that there may be childhood experiences that fall outside of the traditional rubric for criterion A traumatic events that may still be experienced as traumatic by children and adolescents in terms of their emotional and

behavioral reactions. Therefore, this study examined the frequencies of reported stressful experiences.

Hypothesis

Given the nature of the current study as primarily a measure development study, only one hypothesis was generated related to specific results. It was hypothesized that multiple and/or chronic trauma experiences would be highly correlated with a distinct set of symptom criteria, known as developmental trauma disorder (DTD; van der Kolk, 2005), in a clinical sample of youth. This hypothesis was based on van der Kolk's (2005) theory that complex trauma results in a set of symptoms that are qualitatively distinct from the symptom criteria of PTSD. Therefore, it was predicted that participants who endorsed multiple trauma exposure incidents would be more likely to endorse the experimental symptom questions describing DTD on a newly developed DTD measure.

Chapter 2: Method

Participants

In total, some measures were completed for $N = 36$ youth participants. Of youth participants who completed the child demographic questionnaire, 56.3% identified as female ($n = 18$), and 43.8% identified as male ($n = 14$). Participating youth ranged in age from 8 to 17 years old with an average age of 12.81 ($SD = 2.93$). See Table 1 for more detailed information regarding youth age and gender.

INSERT TABLE 1 HERE

In addition, a sample of parents/caregivers were recruited to complete a parent/caregiver-report measure for children participating in the study. If the child lived in a youth home or if the parent/caregiver provided consent but did not participate (i.e., older teens), the mental health therapist was asked to complete the parts of the caregiver demographic form that pertain to the child (i.e. child's diagnoses, medication, length of time in treatment, etc.). Of the 23 adults that completed adult demographic questionnaire, $n = 13$ (56.5% valid), were a biological parent of the child in question. Of biological parents, $n = 12$ (92.3% valid) were the mother of the child. See Table 2 for full descriptive information of caregiver sociodemographics.

INSERT TABLE 2 HERE

For adults who were not the biological parent, relationship to the child included the following: step-father ($n = 3$, 33.3% valid), grandmother ($n = 2$, 20% valid), and therapeutic youth care worker ($n = 4$, 40% valid). Adult participants were asked to report on the child's given diagnoses, psychotropic medication use, and length of time in treatment. See Tables 3-7 for frequencies of coded responses to child diagnoses, medications, and time in treatment.

INSERT TABLES 3-7 HERE

Children under age 8 were not assessed directly due to concerns about their ability to report on their stressful experiences, given their reading and developmental levels. Participants were assessed to establish preliminary psychometrics on all measures, including readability and average time of completion. Additionally, both child and parent responses on all measures were

collected in effort to establish psychometric properties and to evaluate DTD criteria. This study failed to collect the minimum of 80 participants that were needed in order to have enough power to detect relationships between complex trauma and DTD.

Measures

Stressful Events Questionnaire: Ages 8-17 and Stressful Events Questionnaire: Caregiver Report (SEQ; unpublished measure; SEQ-C; unpublished measure). In the initial development of the PTEQ in the pilot study that preceded the current one, in order to determine which trauma exposure measure assessing traditional criterion A1 events should be utilized to control for exposure to these types of events, the first and second author conducted a literature review on childhood trauma assessment measures as part of pilot study that preceded the current study. Though the methodology is described in more detail elsewhere (McDonald, et al., 2014), briefly, 7 trauma exposure questionnaires were analyzed and the first and second authors generated categories of trauma ‘types’ (e.g., sexual abuse, physical abuse, neglect, etc.) based on the existing questionnaires. Twenty-five trauma types were identified. The authors then identified the trauma exposure measure that assessed the majority of the 25 trauma types (the UCLA PTSD Reaction Index, described below; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998), and supplemented with a second, most comprehensive measures (the Trauma History Questionnaire, described below; Green, 1996) to ensure complete coverage of all 25 criterion A1 events typically assessed in existing evidence-based assessment measures for childhood trauma.

The 25 criterion A1 items from these measures were modified slightly for wording, and the response format was changed to allow participants to identify whether or not they experienced the event (yes/no endorsement), how often they experienced the event (frequency of

the incident), and how upsetting the event was to them (McDonald et al., 2014). These modified items were combined with the additional, new items from the PTEQ developed in the initial pilot study, resulting in a comprehensive assessment measure targeting criterion A1 and non-criterion A1/potentially trauma childhood experiences.

The PTEQ includes items that assess for specific categories of PTEs not already covered by the combined UPRI-THQ measure (e.g., peer-victimization, divorce, etc.), as determined in preliminary measure development prior to the current study (McDonald, et al., 2014). The questionnaire utilizes behaviorally-specific questioning, as this was found to be the more favorable format, resulting in higher reporting rates (DiLillo et al., 2010; McDonald, et al., 2014). However, based on the initial study on the development of the PTEQ, an open-ended or catch-all question was also included at the end of the survey, in order to ensure that less-commonly occurring traumatic events are not neglected (Goodman et al., 1998; McDonald et al., 2014). The answer format for the PTEQ mirrored that of the UPRI-THQ Survey, described previously. The development of PTE categories and the pilot testing of the questionnaire were described in the Introduction section, above.

Thus, the Stressful Events Questionnaire was developed as a 46-item, self-report questionnaire for youth ages 8-17 years old. A caregiver version was also developed by changing the item wording to describe “Your child...” rather than “You...” All items met the Gunning Fog Index criteria for 8 or below. While the SEQ utilizes primarily behaviorally-specific questions, a catch-all, open-ended question is also included at the end of the questionnaire. See Appendix B for full measures.

Developmental Trauma Disorder Questionnaire: Ages 8-17 and Developmental Trauma Disorder Questionnaire: Caregiver Report (DTDQ; unpublished measure and DTDQ-

C; unpublished measure). After pilot testing (McDonald et al., 2014), the DTDQ wording was modified for the current study in order to be administered to children ages 8-17 years. An additional caregiver version was also created. The DTDQ assesses for symptom criteria B, C, and D of DTD, which cover a repeated pattern of dysregulation in response to trauma cues and difficulties with altered attributions, and functional impairment, respectively. Criterion A (exposure), as described by van der Kolk (2005), was assessed with the SEQ. Of note, the DTDQ does not require that participants identify their/child's worst experience, as is sometimes the case in past research as described previously. A symptom count or threshold has yet to be established, and the current study provided the first assessment of these symptom criteria in trauma-exposed children; thus, questions are presented in a checklist-format so that participants can indicate more than one response per item. Participants are asked to check only if symptoms apply. A higher frequency of item endorsement indicates more severity in symptomology. See Appendix C for full measures.

University of California Los Angeles Posttraumatic Stress Disorder Reaction Index (UPRI; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998). As determined by the item analysis conducted in the initial pilot study, the trauma exposure section of UPRI covered the majority of criterion A1 traumatic events. The UPRI exposure items were reworded and subsumed in the SEQ, described above; however, both the original trauma exposure items from the UPRI and the symptom items were also administered in the current study in order to assess for convergent validity with the SEQ and DTDQ.

The UPRI is a self-report inventory that assesses for trauma exposure and post-traumatic symptoms in children and adolescents. The measure was designed to be highly correlated with the exposure and symptom criteria for PTSD in the DSM-IV (Steinberg, Brymer, Decker, &

Pynoos, 2004). The first portion of the questionnaire (Part 1) assesses lifetime exposure to trauma (e.g., child must check yes or no next to “Seeing someone in your town being beaten up, shot at, or killed;” Pynoos et al., 1998). The items are scored as either present or absent, and the youth must identify the worst event if more than one event was endorsed. The second part of the measure assesses for PTSD symptomology based on the worst event reported. The UPRI was found to have good convergent validity in comparison to other childhood PTSD measures (0.70 with the PTSD Module of the Schedule for Affective Disorders and Schizophrenia for School-Age Children, Epidemiologic version, and 0.82 with the Child and Adolescent Version of the Clinician-administered PTSD Scale; Steinberg et al., 2004). Further, the internal consistency of the measure, Cronbach’s alpha, was 0.90 and the test-retest reliability coefficient was 0.84 (Steinberg et al., 2004). See Appendix A for full measure.

Trauma History Questionnaire (THQ; Green, 1996). The THQ is a 24-item self-report inventory that assesses for trauma exposure and post-traumatic symptoms. The THQ asks participants to respond no or yes to each question. If the respondent answered yes, they are then asked to identify the frequency of incidents and the approximate age they were when the event took place. If the event involved a potential perpetrator, the answer format asks the participant to identify their relationship to the perpetrator or to provide more details. Only items from the THQ not all ready targeting specific criterion A1 events covered by the UPRI were included in the current study, and both the symptoms items and response options were dropped or modified. Test-retest reliability of the full THQ in previous studies found consistent reporting of events across administrations. The reliability coefficient ranged from .51 (close person killed) to 1.0 (seen dead bodies). Those items not covered by the UPRI in the pilot study assessment measure

were covered by the THQ, and were subsequently reworded and subsumed into the SEQ as described above.

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). The SDQ is a short screening questionnaire that was designed to measure a number of child and adolescent behavioral difficulties. There are 25 items, which are broken into five, 5-item subscales: conduct problems, hyperactivity-attention, emotional symptoms, peer problems, and prosocial behavior. There are parent, teacher, and self-report versions, and the measure has demonstrated good psychometrics (Mellor, 2004). Although the self-report version was designed for youth ages 11-17, research has demonstrated that the measure is reliable in samples of children as young as seven years old (Mellor, 2004). The SDQ was utilized to establish discriminant validity with the DTDQ and DTDQ-C. See Appendix D for full measures.

Demographic forms. A demographic form was included to collect relevant demographic information. Child participants were asked to report their age, gender, grade, and with whom they live. Adult participants were asked to report their age, gender, ethnicity, sexual orientation, religious affiliation, relationship status and length, living situation, relation to child in question, employment status, household income, and educational attainment of self and partner. In addition, adult participants were asked to report all diagnoses given to the child, all medication prescribed to the child, and the length of time the child has been receiving mental health services. See Appendix E for full demographic forms.

Clinician observation forms. In order to collect qualitative information regarding the newly developed measures, participating therapists were asked to complete the therapist observation form at assessment Time1 and Time 2 for the child and the caregiver. Therapists were asked to report how long it took for the child/caregiver to complete the SEQ/SEQ-C and the

DTDQ/DTDQ-C. They were also whether or not the child/caregiver struggled with any questions, and if so which questions were difficult. Therapists were also given the opportunity to provide any other feedback for the researcher. See Appendix F for full clinician observation forms.

Procedure

Recruitment strategy. Given the sensitive nature of the target population to be studied (i.e., children and adolescents receiving mental health services), as well as the nature of the assessment questions (i.e., trauma exposure), the current study utilized a broad recruitment strategy. The principal investigator reached out to 8 mental health agencies serving large numbers of children and adolescents within her community. One youth home in the southwestern United States was also recruited to participate as a satellite data collection site. Two school psychology graduate students were also contacted as an attempt to recruit trauma-exposed youth via existing practicum sites. The principal investigator sent emails to all agency management staff introducing the study. Following this email, informational presentations were given to agency staff regarding the importance of the study and the introduction of trauma exposure measures. Following agencies' agreement to participate, the principal investigator met with agencies for an additional meeting to provide participating therapists with instructions for assessment administration, assessment packets, and participant incentives. Also, the principal investigator contacted participating agencies regularly throughout the data collection process.

In addition to larger mental health agencies, this study also recruited mental health therapists in private practice. An email was sent to five private practice child therapists in the principal investigator's community. Following these emails, she met with interested therapists individually to provide instruction on questionnaire administration and supply therapists with

study materials. The principal investigator also contacted participating private practice therapists regularly throughout the data collection process. See Table 8 for a full summary of agencies and private practice therapists that agreed to participate, the quoted number of participants they would assess, and the total number of completed assessments returned. As demonstrated by Table 8, significant recruitment difficulties were encountered, which will be discussed in the Limitations section.

INSERT TABLE 8 HERE

Finally, flyers posted in mental health, childcare, and medical providers' offices were used to directly recruit families for participation in the study. A flyer was also posted on Craigslist. This recruitment strategy did not yield interested participants. See Appendix G for a copy of the flyer.

Questionnaire administration. In order to empirically evaluate the diagnostic criteria for DTD and establish preliminary psychometrics of the newly developed trauma exposure measures, the current study employed a test-retest design. Upon receiving guardian permission and child assent, caregivers and children were administered the assessment packet at Time 1, which included the SEQ/SEQ-C, UPRI, additional THQ exposure items not already covered in the SEQ, DTDQ/DTDQ-C, SDQ, and demographic forms. At Time 2, which occurred approximately 1 to 2 weeks after Time 1, participants were asked to complete the retest of the SEQ and DTDQ only. Therapists were given a Clinician Procedure Checklist to aid in the ordering and administration of assessments. They were instructed to have the child complete the assessments as independently as possible, with assistance from the therapist, as needed. In

addition, they were asked to complete the Clinician Observation Form as the child and caregiver completed the assessments. Therapists were instructed to complete as much of the assessment as feasible for the family and their setting. That is, if therapists were only able to collect the assessments at Time 1 due to time constraints, this was permitted. Parents and children were given incentives by the participating therapist following each assessment administration. See Table 9 for visual display of measures included in Time 1 and Time 2.

INSERT TABLE 9 HERE

Each participant was assigned an identification number that was used to maintain confidentiality between the participating agencies or therapists and the research team, as well as to keep track of participants across administrations of the instruments. Only the code was attached to their responses on the questionnaire. Participating agencies/therapists were given participant tracking sheets, which provided therapists with a systematic and confidential procedure for maintaining the tie between identification number, participants' names, and completion of each assessment.

Incentives. Both youth and caregiver participants were given incentives at assessment Time 1 and assessment Time 2, if permitted by the referral agency. At each assessment time, caregiver participants were given \$5.00 gift cards for Safeway food stores, which could be used for both gas and grocery products. At each assessment time, youth participants were given a gift bag with gift items relevant to the child's age group. For example, younger child gift bags included stencils, bouncy balls, rubber bracelets, etc. Older child gift bags included earbud headphones, flashlights, carabiner clips, sparkly pens, etc. This researcher consulted with

participating therapists to determine included items for youth gift bags. Participating therapists were provided individual and aggregate assessment reports for their participating clients, as requested.

Chapter 3: Results

A primary purpose of this study was to develop a self-report childhood trauma exposure measure that addressed limitations of existing measures. This measure was broad in its definition of trauma, assessed for duration of trauma experiences, and included items sensitive to diversity issues. In addition, a measure was created to assess for the proposed diagnosis, DTD.

Psychometric validation is an essential first step in the development of newly developed psychological assessment measures. The following analyses provide preliminary psychometric information on the validity and reliability of the SEQ and the DTDQ.

Psychometric Analyses of the Stressful Events Questionnaire (SEQ)

Item level analysis. Thirty-five youth participants completed the SEQ at assessment Time 1. Item analysis of the Child SEQ at assessment Time 1 revealed that two items were not endorsed by any participants: living in a war zone and experiencing an earthquake. All other items were endorsed (see Table 10 for frequencies of endorsed Child SEQ items). Across the Child SEQ at assessment Time 1, the mean of individual trauma types reported (yes or no) was 11.15 ($SD = 5.9$), which supports theoretical underpinnings that youth often experience several stressful experiences in childhood. The mean of the frequency of incidents (i.e., number of times an experience occurred), across all trauma types, was 31.43 ($SD = 26$). Missing data were analyzed in an attempt to establish if there were any items youth participants systematically felt were ambiguous, difficult to answer, or threatening. The mode number of missing data for each item was 3. As such, items with greater than 3 missing data points may indicate items for which

youth participants found challenging for a number of reasons. These items included: loved one serious injury (4 missing data points), physical abuse: home (4 missing data points), witness violence at home (5 missing data points), spanked leaving injury (4 missing data points), physical bullying (4 missing data points), child pornography (4 missing data points), and other stressful experience (7 missing data points).

INSERT TABLE 10 HERE

Item analysis of the Caregiver SEQ at assessment Time 1 revealed that four items were not endorsed by any participants: earthquake, man-made disaster, exposure to radioactivity, and robbery without a weapon (see Table 11 for frequencies of endorsed SEQ-C items). Across the Caregiver SEQ at assessment Time 1, the mean of endorsed stressful experiences type reported (yes or no) was 13.65 ($SD = 3.86$), which also supports theoretical underpinnings that youth often experience several stressful experiences in childhood. The mean frequency of incidents, across all trauma types, was 37.37 ($SD = 18.46$). Missing data was analyzed, and the mode number of missing data for each item was 6. As such, items with greater than 6 missing data points may indicate items for which adult participants found challenging for a number of reasons. These items included: witness violence at home (7 missing data points), spanked leaving injury (7 missing data points), attacked with a weapon (7 missing data points), private parts touched (7 missing data points), forced to touch private parts (8 missing data points), other unwanted sexual contact (7 missing data points), loved one attempted suicide (7 missing data points), loved one serious crime (7 missing data points), parents divorced/separated (7 missing data points), caregiver multiple partners (7 missing data points), emotional abuse (8 missing data

points), diversity-related aggression (7 missing data points), other event 1 (9 missing data points), other event 2 (11 missing data points).

INSERT TABLE 11 HERE

Open-ended items on the SEQ were analyzed to reveal stressful experiences not captured on the SEQ closed-ended items. The Child SEQ included one open-ended item. Analysis revealed endorsement of the following unique stressful experiences reported by youth participants that were not included in SEQ closed-ended items: *forced into prostitution because family could not afford rent, house foreclosure, parent in psychiatric hospital, child physically aggressed toward his/her dating partner, forced into stealing by parent, locked on a patio for two weeks without food, multiple strangulations, death of both biological parents, frequent arguments between parents and/or parent and romantic partner(s), parental unemployment, and parents unable to pay bills.*

The Caregiver SEQ included two open-ended items, the first item asks for any other “extraordinarily stressful situation or event.” Adult participants reported the following unique stressful childhood experiences not already assessed for in the closed-ended items of the Caregiver SEQ: *pain following major surgery, frequent arguments between parents and/or parent and romantic partner(s), being left by mother, parent in psychiatric hospital, loss of home due to medical trauma costs, living in hunting camper, conflict between biological parent and step-parent, moving back and forth between biological parents’ homes in separate states, stripped naked and forced into empty bathtub for punishment, exposure to illicit drugs in utero, and witnessed verbal abuse between parents.*

The second open-ended item on the Caregiver SEQ asks, “Did anything else happen to your child that you did not talk about in the previous questions?” Adult participants reported the following unique childhood experiences not already addressed in aforementioned questions: *accidentally knocked unconscious by older child running into the child, living in group care, being told she/he could not return to living at home, living with teenagers who engaged in self-harm, and parent filing a restraining order against grandparent to keep grandparent from contacting the child.*

Internal consistency reliability. Internal consistency measures the extent to which items in a scale reflect the same content. Thus, good internal consistency is an indicator of reliability in self-report measures. However, the concept of internal consistency in measuring life experiences is less applicable, given that items in a trauma exposure measure may represent unrelated victimization experiences (Zolotor et al., 2009). Concurrently, the extent to which multi-victimization in childhood is common substantiates measuring internal consistency when developing a new childhood trauma measure. The SEQ was broken into scales representing similar trauma types/contexts, and internal consistency was evaluated using Cronbach’s alpha. In addition, Cronbach’s alpha was assessed for the total scale.

From the Child SEQ at assessment Time 1, the following scales were found to have alpha coefficients in the good to very good range (Berent et al., 2008): community violence, peer-related stressors, sexual abuse, and the total scale. On the Child SEQ the other family distress, other physical threat, and family violence/maltreatment scales were found to have alphas in the poor range. The lower alphas may represent limitations of scale construction or the fact that these types of stressful childhood experiences are less likely to co-occur than other types, such as sexual abuse or peer-related stressors. The negative alpha of the other physical threat scale

indicates that items within this scale actually covaried negatively. See Table 12 for alpha coefficients and the number of items used for the calculation of alphas for the Child SEQ.

INSERT TABLE 12 HERE

From the Caregiver SEQ at assessment Time 1, only the sexual abuse scale was found to have a Cronbach's alpha in the good range. The total score had the next highest alpha at .57. See Table 13 for alpha coefficients and the number of items used for the calculation of alphas for the Caregiver SEQ.

INSERT TABLE 13 HERE

Test-retest reliability. Test-retest reliability indicates the degree to which an instrument measures the same construct over a period of time. Therefore, high test-retest reliability would indicate that the scores are not influenced by the respondent's mood or other environmental factors. Participating therapists were asked to re-test their clients one to three weeks following the initial administration. This time period was deemed to be enough time for participants not to remember their answers, but not so much time such that many additional stressors could be experienced. However, it is possible that additional stressors occurred during the test-retest period.

Test-retest was calculated using bivariate correlations of scores from time 1 and time 2 for the SEQ. Correlations were assessed for each of the three responses formats of the SEQ: whether or not the stressful event was experienced, the frequency of incidents, and how upsetting

the event was perceived. For the Child SEQ, 35 youth participants partially completed (i.e., some items were answered) the SEQ at assessment Time 1, and 27 youth partially completed the SEQ at assessment Time 2. However, after accounting for missing data, 26 youth fully completed (i.e., all items were answered) the SEQ at assessment Time 1, and 19 youth completed the SEQ at assessment Time 2, which represents a test-retest rate of 73%. Assessment Time 1 and assessment Time 2 correlations for the sample was .79 ($p < 0.01$) for whether or not the event was experienced, .92 ($p < 0.01$) for frequency of incidents, and .90 ($p < 0.01$) for how upsetting the event was perceived by the child. These significant correlations indicate good test-retest reliability in that responses tended to be consistent over time for each of the three response formats on the Child SEQ.

For the Caregiver SEQ, 30 caregivers partially completed the SEQ-C at assessment Time 1, and 27 caregivers partially completed the SEQ-C at assessment Time 2. After accounting for missing data, 20 caregivers fully completed the SEQ-C at assessment Time 1, and 16 caregivers fully completed the SEQ-C at assessment Time 2, which represents a test-retest rate of 80%. Assessment Time 1 and assessment Time 2 correlations for the sample was .76 ($p < 0.01$) for whether or not the event was experienced, .88 ($p < 0.01$) for frequency of incidents, and .90 ($p < 0.01$) for how upsetting the event was perceived by the child. These significant correlations indicate good test-retest reliability in that responses tended to be consistent over time for each of three response formats on the Caregiver SEQ.

Construct validity. Construct validity is the extent to which the instrument accurately measures the intended construct of study. Given that this newly developed instrument was intended to assess for a broad range of stressful childhood experiences and expand upon current measures' limitations, no gold standard exists for which we can base the validity. For this reason,

construct validity was evaluated by examining predictable relationships with non-instrument items, namely gender and age of the child. For example, sexual abuse has consistently been associated with female sex (Zolotor et al., 2009). In addition, some research has supported increased risk of physical abuse, psychological abuse, and sexual abuse with increased age and decreased risk of neglect with increased age (Zolotor et al., 2009). However, these findings are not consistent, and studies on complex trauma have revealed early age of onset for initial exposure to trauma (Spinazzola et al., 2005; Zolotor et al., 2009). For this reason, the analyses regarding relationships between age of the child and trauma exposure experienced were exploratory.

For the Child SEQ, predictable relationships were examined between gender and Child SEQ subscales, utilizing the *t* test. Of the six scales comprising the Child SEQ, only two scales revealed significant differences according to gender: sexual abuse and other physical threat. Sexual abuse shows predictable significance with being more common among girls, $t(28) = 2.94, p < .01$. The other physical threat scale, which includes life-threatening illness, scary/painful medical treatment, bad accident, natural and man-made disasters, and exposure to radioactivity, also revealed a significant difference with being more common among girls as well, $t(28) = 2.09, p < .05$.

Relationships between the child's age and trauma exposure was evaluated for the Child SEQ with a bivariate correlation between age and the total frequency of incidents score. The correlation did not approach significance with a correlation coefficient of .26. In addition, age was correlated with each SEQ scale to examine whether or not significant relationships emerged. For the Child SEQ, the Community Violence scale showed a significant relationship between increased child age and exposure with a correlation coefficient of .45 ($p < .05$). The Other

Physical Threat scale also showed a significant relationship between decreased child age and exposure with a correlation coefficient of $-.39$ ($p < .05$). See Table 14 for a full listing of correlation coefficients between age and SEQ scales.

INSERT TABLE 14 HERE

For the Caregiver SEQ, predictable relationships were examined between gender and Caregiver SEQ subscales, utilizing the t test. Of the six scales comprising the Caregiver SEQ, only one scale revealed significant differences according to gender: sexual abuse. Sexual abuse shows predictable significance with being more common among girls, $t(26) = 2.01$, $p < .05$.

Relationships between the child's age and the extent of victimization was evaluated for the Caregiver SEQ with a bivariate correlation between age and the total frequency of trauma incidents. The correlation did not approach significance with a correlation coefficient of $.27$. In addition, age was correlated with each SEQ-C scale to examine whether or not significant relationships emerged. For the SEQ-C, no significant relationships emerged between SEQ scales and child age. See Table 13 for a full listing of correlation coefficients between age and SEQ-C scales.

Convergent and discriminant validity. Convergent validity refers to the extent to which two measures assessing the same construct covary; whereas, discriminant validity refers to the extent to which two measures not assessing the same construct do not covary. Time constraints on participating therapists and their desire to limit assessment measures reduced the intended assessment battery to including only the UPRI as an additional exposure measure. Exposure questions were used to examine convergent/discriminant validity with the SEQ/SEQ-C. Given

that some items from the UPRI are included on the SEQ and that the SEQ was designed to cover a broad range of stressful experiences outside of PTSD criterion A defined trauma events, it was expected that there would be a small to moderate correlation between overall scores of the UPRI exposure questions and the SEQ. However, a significant correlation was expected between the UPRI and SEQ items that assess for traditional traumatic events, as defined by the DSM. Additionally, low correlations were expected between the UPRI and SEQ items that assess for potentially traumatic events (i.e., do not meet DSM criteria).

For the Child SEQ, an overall bivariate correlation between total number of items endorsed on the UPRI and the SEQ was calculated. The correlation did not approach significance with a correlation coefficient of .33. This finding supports the use of the Child SEQ in childhood trauma assessments for incremental validity. A bivariate correlation was also calculated between the total score of items endorsed on the UPRI and SEQ items that meet DSM criteria for a traumatic event. For youth respondents, the correlation was significant with a coefficient of .53 ($p < .01$), providing support for convergent validity of the SEQ. To assess discriminant validity, a bivariate correlation was calculated between the total score items of endorsed on the UPRI and SEQ score of items that do not meet DSM criteria for a traumatic event (i.e., potentially traumatic event). For the Child SEQ, this correlation coefficient was .28 and did not approach significance, providing support for discriminant validity of the SEQ.

For the Caregiver SEQ, an overall bivariate correlation between total number of items endorsed on the UPRI and the SEQ was calculated. The correlation did not approach significance with a correlation coefficient of .41. This finding supports the use of the Caregiver SEQ in childhood trauma assessments for incremental validity. A bivariate correlation was also calculated between the total score of items endorsed on the UPRI and SEQ items that meet DSM

criteria for a traumatic event. For caregiver respondents, the correlation was significant with a coefficient of .65 ($p < .01$), providing support for convergent validity of the SEQ-C. For the Caregiver SEQ discriminant validity correlation between the UPRI total score and SEQ score of potentially traumatic experiences items, the correlation coefficient was .18 and did not approach significance, providing support for discriminant validity of the SEQ-C.

Readability and comprehension. In order to evaluate the readability and comprehension of the SEQ, participating therapists were asked to complete a clinician observation form while youth and caregivers participated. Therapists were asked to note how long it took participants to complete the SEQ, whether or not there were any questions the participant found difficult, and which questions the participant thought were difficult. Further, there was space for the provider to leave any other comments for the researcher. Therapists were asked to complete this form at both assessment times.

For the Child SEQ at assessment Time 1, 18 therapists reported on length of administration of the SEQ. Therapists reported that eight youth participants completed the SEQ in 15-20 minutes, seven youth participants completed the SEQ in 21-30 minutes, and three youth participants completed the SEQ in 31-40 minutes. For the Child SEQ at assessment Time 2, 13 therapists reported on administration time. Therapists reported that five youth participants completed the SEQ in 10 minutes or less, six youth participants completed the SEQ in 12-15 minutes, and two youth participants completed the SEQ in 20-25 minutes.

For the Caregiver SEQ at the assessment Time 1, 17 therapists reported on length of administration. Therapists reported that two caregivers completed the SEQ in 5-10 minutes, ten caregivers completed the SEQ in 15-20 minutes, four caregivers completed the SEQ in 25-30 minutes, and one caregiver completed the SEQ in 45 minutes. For the Caregiver SEQ at the

assessment Time 2, 14 therapists reported on length of administration. Therapists reported that eight caregivers completed the SEQ in 5-10 minutes, five caregivers completed the SEQ in 15-20 minutes, and one caregiver completed the SEQ in 35 minutes.

The reduced administration times at assessment Time 2 of both the Child and Caregiver SEQs may represent increased familiarity with the questionnaire format, as well as the questions. It is also possible that some participating therapists were reporting on the length of the entire assessment at the first administration, rather than the time it took for them to complete just the SEQ, as stated in the question prompt. Regardless, the reported administration times represent the feasibility of administering the SEQ in an intake or individual therapy appointment with both youth and caregivers.

For the Child SEQ at the assessment Time 1, 17 therapists reported on whether or not youth participants had difficulties with any of the questions. Therapists reported that eight youth participants did indeed have difficulties with one or more questions. At assessment Time 2, 12 therapists reported on whether or not youth participants had difficulties with any questions, and they reported that two youth participants had difficulties with questions. Between both assessment times, therapists reported seven specific items were difficult for youth participants. See Table 15 for specific items and therapist feedback related to those items.

INSERT TABLE 15 HERE

Therapists were also given the opportunity to leave other comments for the researcher. Mostly, this was utilized to provide specific feedback on items that youth participants found challenging. However, some therapists gave other feedback. One therapist suggested placing the

item related to being forced into child pornography near the other items related to sexual abuse. Additionally, for the item related to seeing a dead body, another therapist recommended to specify “human” body. In the item assessing for sibling abuse, one therapist noted that “normal fighting” is relative. One therapist also shared that when answering the sexual abuse items, one child participant wondered why someone would do that. Lastly, four therapists provided feedback that items were “too wordy.” One therapist noted that this measure was particularly challenging for a child with verbal processing difficulties.

For the Caregiver SEQ at assessment Time 1, 14 therapists reported on whether or not there were any questions that caregivers had difficulty understanding. Therapists reported that three caregivers had difficulty with one or more questions, while 11 did not have difficulty understanding any questions. At assessment Time 2, 12 therapists reported on whether or not there were any questions that caregivers had difficulty understanding, and all 12 indicated that there were not any caregivers who had difficulties with the questions at assessment Time 2. From assessment Time 1, therapists reported three specific items that were difficult for caregivers to understand. See Table 16 for specific items and feedback related to those items.

INSERT TABLE 16 HERE

Psychometric Analyses of the Developmental Trauma Disorder Questionnaire (DTDQ)

Item level analysis. Item analysis revealed that all items of the Child DTDQ were endorsed by at least one youth participant. See Table 17 for frequencies of endorsed Child DTDQ items. Across the Child DTDQ at assessment Time 1, the mean of DTD symptoms was 4.6 ($SD = 3.6$), which supports theoretical underpinnings that DTD symptoms are commonly

experienced psychological sequelae in youth with developmental trauma histories. Missing data analysis was not useful to the DTDQ, as the response format requires participants to check items if they apply or to leave them blank if they do not apply.

INSERT TABLE 17 HERE

Item analysis of the Caregiver DTDQ also revealed that all of the items were endorsed by at least one caregiver participant. See Table 18 for frequencies of endorsed Caregiver DTDQ items. Across the Caregiver DTDQ at assessment Time 1, the mean of DTD symptoms was 5.58 ($SD = 4.53$), which supports theoretical underpinnings that DTD symptoms are commonly experienced psychological sequelae in youth with developmental trauma histories.

INSERT TABLE 18 HERE

Internal consistency reliability. Unlike internal consistency for the SEQ, internal consistency for the DTDQ was expected to be higher, as the scales and the measure represent the symptoms of a proposed diagnosis for which the symptoms are expected to co-occur and hang together in a similar way. High, but not perfect, internal consistency was expected (i.e., coefficients ranging from 0.70 to 0.95; Berent, et al., 2008). The DTDQ was broken into scales representing the suggested criteria (van der Kolk, 2005), and internal consistency was evaluated using Cronbach's alpha. In addition, Cronbach's alpha was assessed for the total scale.

For the Child DTDQ at assessment Time 1 all scales except for the functional impairment scale ($\alpha = .41$) were in the good to very good range. The total score was found to have the

highest alpha at .83. See Table 19 for alpha coefficients and the number of items used for the calculation of alphas for the Child DTDQ.

INSERT TABLE 19 HERE

For the Caregiver DTDQ at assessment Time 1 all scales were found to be in the high to very good range. The total score was found to have an alpha of .91, representing very good internal consistency of the entire measure. See Table 20 for alpha coefficients and the number of items used for the calculation of alphas for the Caregiver DTDQ.

INSERT TABLE 20 HERE

Test-retest reliability. Test-retest was calculated using bivariate correlations of total scores from time 1 and time 2 for the DTDQ and DTDQ-C in order to evaluate the degree to which participant responses were stable across administrations. Total frequencies for completion of the Child DTDQ were 35 youth participants at assessment Time 1 and 33 youth participants at assessment Time 2, though these numbers may include missing data, given the response format of the DTDQ which asks participants to only endorse items if they apply, rather than checking yes or no. For the DTDQ, assessment Time 1 and assessment Time 2 correlations for the sample was .73 ($p < 0.01$). Total frequencies for completion of the Caregiver DTDQ-C were 31 caregiver participants at assessment Time 1 and 33 caregiver participants at assessment Time 2, though these numbers may include missing data given the response format. For the DTDQ-C, assessment Time 1 and assessment Time 2 correlations for the sample was .74 ($p < 0.01$). These

significant correlations indicate that responses tended to be consistent over time for both the Child and Caregiver DTDQ measures.

Convergent and discriminant validity. In order to assess for convergent validity of the DTDQ, bivariate correlations were calculated between total DTDQ and total UPRI symptom questions for either the child or caregiver respondent. For the Child DTDQ, the correlation was significant with a correlation coefficient of .83 ($p < .01$). The correlation coefficient is high, but not perfect, indicating that the two measures are assessing similar, but not identical constructs. For the Caregiver DTDQ, the correlation was significant with a correlation coefficient of .43 ($p < .05$). Similarly, this coefficient likely represents the degree to which these measures assess similar, but not identical constructs.

In order to assess for discriminant validity of the DTDQ, bivariate correlations were calculated between the total DTDQ and SDQ scales and total score. The SDQ includes the following scales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. It was predicted that there would be a low correlation with the prosocial behavior scale specifically, since this scale represents the most marked difference from the intended purpose of the DTDQ. However, since the SDQ is a broad measure assessing for child behavior and emotional problems, strengths, and other aspects of functioning, correlations between DTDQ score and each scale provides valuable information.

For the Child DTDQ, the correlation between the DTDQ and the prosocial behavior scale was low at .10. Only the emotional symptoms scale had a significant correlation with the DTDQ with a correlation coefficient of .42 ($p < 0.05$). This significant correlation between the Child DTDQ and the emotional symptoms scale of the SDQ is not surprising given that the DTDQ is

intended to measure the DTD construct, which is comprised of symptoms of emotional dysregulation.

For the Caregiver DTDQ, the correlation between the DTDQ and the prosocial behavior scale was negative at $-.06$. Three scales had significant correlations with the DTDQ: emotional symptoms with a correlation coefficient of $.64$ ($p < 0.01$), conduct problems with a correlation coefficient of $.49$ ($p < 0.05$), and total score with a correlation coefficient of $.53$ ($p < 0.01$). These significant correlations are also in line with the DTD construct given that emotional and behavioral problems are consistent with DTD and that the emotional and conduct scales load onto the total scale for the SDQ. See Table 21 for full listing of Child and Caregiver DTDQ and SDQ scale correlations.

INSERT TABLE 21 HERE

Readability and comprehension. Although open-ended questions on the clinician observation form provided room for feedback regarding the DTDQ, only one therapist gave specific feedback on the DTDQ. It was noted that there were “too many parts” of each item, which was “confusing” for child participants. Specific data regarding length of administration and questions participants found difficult to understand was not directly assessed.

Hypothesis Evaluating DTD Construct

To further evaluate the validity of the DTD construct, this study planned to conduct a stepwise regression to explore if multiple or chronic trauma experiences predict endorsement of the DTDQ. The analytic strategy was to utilize the frequency of incidents variable on the SEQ to measure the degree to which participants experienced multiple or chronic traumas. The predictor

variables of the regression analysis were to include demographic variables and the frequency of incidents score. The stepwise regression intended to determine the best model of predictor variables for endorsement of the DTD experimental symptom questions. A power analysis revealed that 80 participants would be needed to run the regression. Thus, the following preliminary analyses should be interpreted cautiously given the limited sample size.

In order to minimize impacts of the low sample size, only gender and the frequency of incidents total variable were included as predictors in the preliminary regression analysis. The results of the regression indicated that for the self-report measures (ages 8-17), the SEQ frequency of incidents total score accounted for a significant amount of the variance observed in the DTDQ total score, as predicted. That is, the frequency of incidents score did significantly predict DTDQ total scores, as the Beta-weight was statistically significant when keeping other variables constant ($\beta = .47, p < .01$). Further, gender was not included in the final model, as it did not provide any additional prediction to the model. In sum, the frequency of trauma incidents variable accounted for 19% of the variability observed in the DTDQ self-report total score and a one standard deviation increase in the frequency of incidents variable was predictive of a .47 standard deviation increase in DTDQ total scores. The observed statistical power for this analysis was .31. See Table 22 for the regression table.

INSERT TABLE 22 HERE

The results of the regression analysis indicated that for the caregiver-report measures, the SEQ-C frequency of incidents total score did not account for a significant amount of the variance observed in the DTDQ-C total score. That is, only child gender significantly predicted DTDQ-C

total scores, as the Beta-weight was statistically significant when keeping other variables constant ($\beta = -.72, p < .001$). As such, the frequency of incidents variable was not included in the final model, as it did not provide any additional prediction to the model. In sum, child's gender accounted for 50% of the variability observed in the DTDQ-C total. Although the frequency of incidents variable was excluded from the model, if included in the model the Beta-weight would have approached significance ($\beta = .26, p = .07$). The observed statistical power for this analysis was .48. See Table 23 for the regression table.

INSERT TABLE 23 HERE

Chapter 4: Discussion

The purpose of the present project was to develop and assess the utility of a new childhood trauma exposure measure, the SEQ, which addresses limitations in current childhood trauma exposure measures. This project expanded upon the work of McDonald et al. (2014) by refining the newly developed measure and testing the measure with a clinical sample of youth receiving mental health services. This study also expanded upon the work of McDonald et al. (2014) in that it sought to evaluate the validity of the proposed diagnosis, developmental trauma disorder (DTD; van der kolk, 2005). Most children who experience complex trauma are not diagnosed with PTSD; separation anxiety and ADHD are most common (Cook et al., 2005). The preponderance of such diagnoses among youth with complex trauma may represent a distinct pattern of symptoms, better captured by DTD (van der Kolk, 2005), which was supported in a sample of 18- and 19-year olds (McDonald et al., 2014). This finding substantiated the need to further evaluate the proposed diagnostic criteria in a sample of youth currently receiving mental

health services. This project aimed to empirically evaluate DTD by assessing children exposed to complex trauma for relevant symptoms.

In addition to the difficulties associated with diagnosing trauma-exposed youth, childhood trauma exposure measures are limited in the types of trauma queried and the possibility of reporting multiple traumas (Hawkins & Radcliffe, 2006). Therefore, this project included development and performance assessment of a unique childhood trauma exposure measure, the SEQ. This measure is unique in that it utilizes a broad definition of trauma, assessing for both criterion A and non-criterion A stressful childhood experiences. Results of this study further supported the findings of McDonald et al. (2014) that children and adolescents perceive a variety of childhood experiences as distressing, given the extent to which youth participants reported many events that would not meet criterion A as upsetting. Further, the sheer number of experiences reported supports the argument that standard trauma assessments should allow for reporting subsequent symptoms on multiple/chronic experiences, rather than on the most difficult only.

The SEQ utilizes behaviorally-specific questions and includes an open-ended question at the end. Participants reported a number of experiences not already assessed for using the open-ended question, which also supported findings from McDonald et al. (2014) that at least one open-ended or catch-all question is included to ensure that less commonly reported experiences are captured. The SEQ response format is unique in that it not only asks for whether or not the child experienced the stressful event, but also asks for frequency of incidents, which gathers valuable clinical information given research that the effects of multiple stressful childhood experiences are cumulative (Felitti et al., 1998). It also permits respondents to indicate how upsetting they perceived the event, which gathers important clinical information given that

peritraumatic distress is associated with higher levels of PTSD, regardless of whether or not the event meets criterion A (Dewey & Schuldberg, 2013). The current study resulted in a self-report version for youth ages 8-17 years as well as a caregiver report version.

The Child and Caregiver versions of the SEQ performed well on pilot testing. There were no reports by participating therapists of adverse traumatic responses and missing data analyses revealed few items that were ambiguous or threatening to answer. Qualitative data from participating therapists included helpful feedback for future revisions of the measures, primarily reducing wordiness, re-arranging some items, and simplifying items that include two or more stressful experiences. However, this feedback was minimal, suggesting that by and large the items were well understood by most participants.

Internal consistency reliability for the entire SEQ scale was in the expected range for a measure of life experience for both the child and caregiver total scales. Breaking the measures into subscales based on trauma type proved less internally reliable, other than for the sexual abuse and peer-related stressors scales on the child version and the sexual abuse scale on the caregiver version. The lower internal reliability alphas for subscales likely indicates the extent to which specific types of stressful childhood experiences do not co-occur as much as stressful childhood experiences in general. The exceptions were sexual abuse and peer-related stressors. In addition, the SEQ-C scales had lower levels of internal reliability. This may represent limitations in scale construction and/or the degree to which reporting on someone else's personal experience is often inaccurate.

Both the child and caregiver versions of the SEQ proved satisfactory on measures of test-retest reliability. Further, bivariate analyses were supportive to some extent of construct validity with girls reporting higher rates of sexual abuse experiences. Additionally, few

significant relationships emerged between child's age and victimization reported, which is likely indicative of the broad range of child participants sampled and their situational circumstances. For instance, a proportion of the younger child participants lived in residential settings, suggesting that they may have been exposed to a great deal of trauma; whereas, some of the older child participants may have had less complex trauma histories. The limited sample size also likely impacted this finding. Further, although there is research that supports increased age as a risk factor for increased trauma (Zolotor et al., 2009), studies on complex trauma specifically have revealed the average age of initial trauma exposure to be early. For example, one study on complex trauma found that the average age of the initial traumatic experience was 5 years of age, and 93% of the sample experienced the initial trauma before the age of 8 (Spinazzola et al., 2005).

Both versions of the SEQ were compared with the UPRI exposure counterparts to establish convergent and discriminant validity, which demonstrated predicted overlap. Thus, the SEQ measures a similar, but incrementally distinct construct from the UPRI. Thus, it was concluded that both of the preliminary versions of the SEQ are valid tools in assessing a broad range of childhood stressful experiences. These results, in combination with the favorable reliability tests, suggest that with future revisions and future testing, the SEQ would be a valuable tool for assessing complex trauma, traditional trauma, and non-Criterion A stressful experiences in childhood.

Although the focus of measure development for this study was the SEQ, this study also included the further development and testing of a measure to assess for DTD symptoms, the DTDQ and DTDQ-C. Psychometric properties of these measures were also evaluated. Similar to the SEQ, preliminary psychometrics of the DTDQ were also promising in terms of internal

consistency reliability, test-retest reliability, and convergent and discriminant validity. The DTDQ may prove a useful tool in studies attempting to explore symptoms and presentation of the DTD construct. See Table 24 for a summary of important psychometric properties of both the SEQ and the DTDQ.

INSERT TABLE 24 HERE

Although the small sample size did not provide sufficient power for the direct empirical evaluation of the DTD construct utilizing a complete regression analysis with several predictor variables, this study provided valuable information, which supports the validity of DTD. First, the preliminary regression analysis of self-report measures using only gender and frequency of trauma incidents score as predictors of DTDQ score, provided preliminary empirical support of a relationship between complex or multiple traumas and the experience of unique psychological sequelae, captured by the symptoms of DTD. The degree to which this analysis was underpowered and still revealed significant findings may suggest that with a larger sample size, significance would increase. The preliminary regression analysis of caregiver-report measures did not reveal significant degrees to which frequency of incidents score predicts DTDQ scores. However, this analysis was underpowered and as such, warrants further investigation with a larger sample size.

Moreover, the frequencies of complex trauma reported in the sample, in conjunction with the high levels of reported DTD symptoms (see Table 25 for a summary of these statistics) suggests that DTD symptoms were relatively common in a sample of youth with complex trauma histories. Further, the internal consistency reliability analyses revealed that the proposed

symptoms of DTD tend to co-occur to a significant degree. The analyses evaluating the convergent and discriminant validity of the DTDQ also provided support for the DTD construct. Specifically, the extent to which DTDQ co-varied with UPRI symptoms suggests that DTD is a similar, but inherently distinct construct.

INSERT TABLE 25 HERE

DTDQ correlations with SDQ subscales for assessing discriminant validity provided other valuable information on the DTD construct. For instance, although youth with complex trauma histories are often diagnosed with ADHD, there were negative (-.01) and low (.13) correlations between the child and caregiver versions of DTDQ and the hyperactivity/inattention subscales of the SDQ, respectively. This may indicate the degree to which ADHD diagnoses for complex trauma survivors may be inappropriate and specific difficulties with attention, concentration, and/or impulsive behaviors may be better explained by DTD symptoms.

Further, the significant correlations between the child and caregiver versions of the DTDQ and the emotional symptoms subscales of the SDQ provide support for DTD as a disorder that captures emotional dysregulation following complex trauma in childhood. Similarly, the significant correlation between the caregiver version of the DTDQ and the conduct problems subscale substantiate the degree to which DTD symptoms represent behavioral dysregulation following complex trauma in childhood. The finding that the DTDQ scores and the conduct problems on the child version of the SDQ was not significantly correlated was not surprising given that youth are typically less reliable in their reports of their own behavioral problems (Ebesutani, Bernstein, Martinez, Chorpita, & Weisz, 2011). Lastly, information reported by

caregivers regarding youth participants' diagnoses received, length of time in treatment, and prescribed psychotropic medications support the rationale for DTD as providing etiological clarity and parsimony. To date, this is the first study to directly assess for the symptoms of DTD in a sample of youth ages 8-17 years, and the results are supportive of the validity of this proposed diagnosis.

Implications

Given that the experience of trauma in childhood has profound implications on child development, it is imperative that mental health professionals, teachers, and policy makers understand these developmental implications so that trauma in children is detected early, reliably, and treated with appropriate and effective interventions. As such, both components of this study, developing a valid and reliable childhood trauma exposure measure and evaluating DTD, have profound implications for research, practice, and policy. In addition to having a tool available to detect complex trauma, establishing the validity of DTD will help in supporting inclusion of DTD in formal diagnostic systems. Inclusion of the DTD diagnosis will ultimately help therapists, teachers, and policy makers identify and intervene with at-risk children, breaking down the barriers to successful social and emotional development to improve prognostic outcomes.

There are diverse policy implications of this work as well. First, this research provides support for continued funding of research related to the development of specific treatments for complex trauma. Additionally, the DTD diagnosis could have profound implications on insurance reimbursements (D'Andrea et al., 2012). For example, children with ADHD or other diagnoses are often limited to a specific number of sessions per year. If these children have experienced complex trauma and their symptoms are better represented by DTD, it is unlikely

that the course of treatment for ADHD will sufficiently meet their needs or provide positive outcomes (particularly given that the most common treatment for ADHD is stimulant medication; Molina et al., 2009). Indeed, this study demonstrated the extent to which youth with complex trauma histories are diagnosed with ADHD (38% of the sample with codeable responses) and prescribed stimulant medications, as well as other psychotropic medications. Caregivers also reported relatively lengthy durations of their children receiving mental health services, which may suggest that the diagnoses received and psychotropic medications prescribed are not effectively addressing the needs of these youth.

Incorporation of a DTD diagnosis would guide researchers and therapists in developing effective treatments, which will need to be acknowledged by insurance companies, research grant institutions, and policy makers. For instance, the Attachment, Self-Regulation, and Competency (ARC) intervention was developed to address the unique needs of complex trauma survivors (Kinniburgh, Blaustein, & Spinazzola, 2005). ARC aims to build resiliency by addressing three primary effects of complex trauma: attachment, self-regulation, and developmental competencies. Despite promising preliminary results, there is a need for studies comparing ARC with other established child trauma interventions (Hodgdon, Kinniburgh, Gabowitz, Blaustein, & Spinazzola, 2013). However, it can be difficult to obtain funding for intervention effectiveness studies if the target diagnosis (i.e., DTD) is not formally recognized. It has been argued that childhood victimization is the most significant and costly issue facing public health (D'Andrea et al., 2012), and prevention of these problems and their subsequent costs begins with identification, which involves both a valid and reliable complex trauma assessment tool (i.e., SEQ), as well as having a formal way of classifying and describing related difficulties (i.e., DTD). Indeed, a primary intention of the DTD diagnosis is to minimize

unnecessary pathologizing of complex trauma survivors who are often labeled with a number of long-lasting and stigmatizing diagnoses (D'Andrea et al., 2012).

There are also significant policy implications for the creation of a measure such as the SEQ. Given the long-lasting impacts of complex trauma to the child and society, it is necessary to utilize a model of prevention, which begins with accurate identification of children requiring services. Systematic screening measures are argued to be an essential tool in prevention systems, as they identify those youth requiring more support to ensure emotional well being, and other related outcomes such as academic success (Lane, Oakes, & Menzies, 2010). The SEQ could serve as a valid, reliable, and useful tool for universal screening of child victimization. Given that child abuse often occurs within the family context or other relationships with authority figures, it is necessary that self-report formats be utilized in order to get accurate reporting rates. The SEQ would enable organizations and agencies dedicated to child welfare (e.g., schools, child protective services) to identify and intervene with affected children (Lane et al., 2010).

Limitations

The primary limitation of this study was the limited sample size. First, the sample was clinical and not nationally representative which, although important for applicability in clinical settings, was not epidemiological in nature thus limiting generalizability. The small sample size also did not permit direct empirical testing of the DTD construct given that the sample size did not yield enough statistical power to use the complete regression analysis as planned. Despite these limitations, results provided inferential support for the DTD construct, including a statistically significant preliminary regression analysis. Although attempts were made to obtain sufficient funding to recruit a larger sample size (i.e., the primary investigator applied for three dissertation funding opportunities), none of these attempts were successful, which may have

been related to the dilemma of studying a diagnosis that has yet to be formally recognized. Regardless, without sufficient funding, it was not possible to obtain the ideal sample size for a measure development study.

In addition to difficulties with funding to recruit a larger sample size, there were a number of difficulties related to therapist participation. There were likely many explanations for participating therapists dropping out of the study or not recruiting their quoted sample sizes. First, it is well noted that therapists working with traumatized youth have high rates of burn out (Borntrager et al., 2012; Thomas, 2002). This is likely related to the difficulties associated with secondary traumatic stress in conjunction with being underpaid and overworked (Thomas, 2002). Therefore, it is possible that participation in this study presented more challenges than solutions for these therapists, which may not have been fully realized until engaging in the assessment process. For instance, some therapists, as well as administrative staff of participating agencies, suggested that providing incentives for therapists other than assessment data would have resulted in greater follow-through. However, the lack of funding did not permit providing direct incentives for participating therapists.

Similarly, some research suggests that attitudes toward psychological assessment amongst community mental health providers have not been consistently positive (Jensen-Doss & Hawley, 2010). The importance of utilizing reliable and valid measures has not been consistently recognized amongst community therapists, particularly Masters-level therapists who made up a majority of the therapist sample in this study (Jensen-Doss & Hawley, 2010). Given possible unfavorable attitudes toward assessment, combined with the personal and professional implications of working in the trauma field with little organizational support (i.e., secondary traumatic stress risk), resistance to assessing trauma and traumatic stress symptoms in particular

likely increased. Anecdotally, a number of community therapists expressed concern about participating in the study due to fears that asking youth about trauma may be too time-consuming, not clinically useful, or may retraumatize youth despite research to the contrary (Finkelhor, Vanderminden, Hamby, & Shattuck, 2014).

Concerns were also expressed regarding the emotionally draining aspect of trauma assessment for both the youth and therapists. The principal investigators worked with therapists to normalize these fears and provide information to contraindicate these fears, particularly given empirical evidence that trauma assessment does not increase traumatic stress nor cause worsening of symptoms (Finkelhor et al., 2014). For instance, the principal investigator provided explanation for and copies of an article that found that asking youth about exposure to abuse and other types of victimization is associated with low levels of distress amongst respondents (Finkelhor et al., 2014). Additionally, therapists who followed through with the assessment expressed to the researcher the degree to which the assessment opened up a helpful dialogue with youth and their families regarding trauma experiences and resulting difficulties. The principal investigator called upon these therapists to speak to their colleagues about their experiences with using the assessments; however, it is unclear as to whether or not this occurred.

In addition to concerns regarding retraumatizing youth by asking them about their trauma experiences, some therapists expressed concern that learning about events that fall under guidelines for mandated reporting was a significant barrier to participation. This was an unfortunate anecdotal finding of this study. Although learning of incidents that require mandated reporting can be stressful for all parties involved, the intent of the law is to identify and protect youth in harm's way. Concerns related to mandated reporting that prevented participation in this

study is an area for further exploration regarding the study of at-risk populations and how to effectively recruit these populations.

Given the many difficulties associated with recruiting community agencies to participate in psychological research studies, Thomas (2002) suggested a number of strategies to effectively engage, recruit, and retain community therapists in psychological research. First, due to the service-oriented nature of community agencies, it is argued that research start with carefully assessing and working within existing agency structures and cultures before even approaching an agency. Next, it is encouraged to acknowledge the tension between the researchers' desire to answer research questions and ways in which the research questions may not be entirely in line with therapists' goals and priorities. After obtaining permission from agencies' administration/management, Thomas (2002) suggests that researchers meet with agency staff without the presence of the managers in order to provide a safe space for agency staff to voice fears, concerns, etc. and for researchers to openly engage in this dialogue. Through this dialogue, researchers can build a relationship with the agency that assists agency staff in buying-in to the idea that the research questions are consistent with their professional integrity and priority of client care.

It is noted that even after substantial buy-in from community agencies, it can be difficult to prevent attrition with community therapists. As such, close contact between the research team and community therapists is strongly suggested (Thomas, 2002). Further, engaging community agencies in a collaborative process, whereby the agencies participate in creation of research questions, method, etc. can help create motivation and a sense of ownership over the project in community agency staff. For these reasons, it can be particularly helpful to have at least one

member of the research team continually present and available within the agency (Thomas, 2002).

This project utilized a number of the aforementioned strategies, such as collaboratively meeting with agency staff to discuss how the project might be helpful for them, their clients, and what else they might want from the study. There was also frequent contact between the principal investigator and participating therapists. However, the use of such strategies could have been more comprehensive and intentional. For instance, creating an open dialogue with agency staff without managers present could have provided a space for more transparency between staff and the principal investigator regarding ambivalence to participate. In addition, a more constant physical presence by the principal investigator (i.e., attendance at weekly staff meetings, rather than monthly or less and email/phone contact) could have resulted in higher rates of participation.

In conjunction with the difficulties associated with recruiting community agencies in research studies, this study encountered a doubly challenging recruitment situation, given the target population (i.e., youth with trauma histories). Youth with trauma histories is another well-documented, hard-to-reach and/or vulnerable population, given inherent developmental and social power differentials (Campbell, Greeson, & Fehler-Cabral, 2014; Schoeppe, Oliver, Badland, Burke, & Duncan, 2014). Campbell et al. (2014) noted that youth with trauma histories are often particularly hesitant to participate in research studies. As such, some researchers have suggested particular recruitment strategies for hard-to-reach youth populations, such as those with trauma histories.

One study reviewed the literature regarding recruitment and retention of community-based youth ages 3-18 years and used the literature review to inform questions for a sample of 27

experts within the field of child-related behavioral health risk factors to gather expertise and consensus regarding recruitment strategies of this population (Schoeppe et al., 2014). The authors concluded that the experts agreed on many strategies, which included: identifying suitable settings and tools for recruitment; efficient data collection approaches; building trusting relationships between researchers and study partners, caregivers, and children; utilizing project champions to promote recruitment/participation; offering incentives/rewards to study partners, children, and caregivers for participation; creating enthusiasm about the study in all parties involved; including a fun component for children in the data collection procedure; using visually appealing and age-appropriate study materials, and minimizing the burden to study partners, caregivers, and children (Schoeppe et al., 2014).

Campbell et al. (2014) suggested utilizing a feminist evaluation approach in recruiting adolescent sexual assault survivors, which involves collaborative processes at every step. A first step in utilizing a feminist evaluation approach involves learning about adolescent survivors' concerns regarding participation in a research study related to those experiences and tailoring the research design and methodology to address these concerns. In addition to working with adolescent survivors directly, it is encouraged to engage other stakeholders (e.g., forensic nurses, rape victim advocates, etc.) to explore their perspective on adolescents' concerns as well. It is also important to utilize explicit and clear opt in/out mechanisms, such as asking participants whether or not it would be okay to contact them regarding research participation before consenting to participate in the project. These opt in/out mechanisms are utilized to maximize youth choice and control in participation. Lastly, researchers should also elicit direct feedback from adolescent participants in an open-ended format in order to learn about their experiences in the study (Campbell et al., 2014).

Similar to the suggestions for recruiting community agencies, this study utilized a number of the aforementioned strategies for recruiting community youth, such as: identifying suitable settings, building collaborative relationships with study partners, and using age-appropriate study materials. However, increased attention to suggested recruitment strategies for this hard-to-reach population might have yielded higher rates of participation. For instance, including a fun component for youth in the study, as well as more visually appealing materials may have increased willingness of both youth participants and community therapists to complete the assessments. Additionally, seeking direct feedback from youth participants, rather than solely participating therapists, and the opt in/out mechanisms described above might have increased youth choice/control in the study. The feedback could also have provided valuable information for future studies. Importantly, however, the primary limitation to data collection was not specifically youth or caregivers, but rather therapists' reluctance to collect assessment data related to the issues described previously.

In addition to the limitations of the current study, including the lack of a nationally representative sample for establishing psychometrics for the newly developed measures, the assessment battery was somewhat limited. Given time constraints on community therapists, the researcher needed to limit the length of the assessment and number of instruments included. It is possible that time constraints may have also been related to billing limitations given that insurance companies vary in terms of their reimbursement rates for assessments. As such, only the UPRI was utilized as a comparison measure against the SEQ. However, inclusion of another life-stressor event scale would have been helpful in establishing convergent validity of the SEQ. Regardless, the UPRI provided valuable information regarding both convergent and discriminant validity of the SEQ.

Another constraint of this study was the difficulty with identifying clear comparison measures for both convergent and discriminant validity of the DTDQ. Given that DTD is a new construct, and that the DTDQ is the only measure thus far that directly assesses for the proposed symptoms, convergent validity could only be established with measures of PTSD symptoms (UPRI). Additionally, since DTD symptoms are broad in nature, affecting a number of emotional and behavioral domains, determining a measure for discriminant validity was challenging. However, both the UPRI and the SDQ provided helpful information regarding convergent and discriminant validity of the DTDQ.

Future Directions

Although this study provided empirical support regarding the utility of a newly developed self-report trauma measure that assesses for frequency of incidents and non-criterion A stressful experiences (i.e., SEQ), the sample size was not large enough to assume generalizability. As such, future research should utilize larger, nationally, and ethnically representative samples of youth and caregivers. A larger sample size would also permit the direct evaluation of DTD symptoms using a complete regression analysis. In addition, incorporating feedback from the current study into future revisions of the SEQ will likely improve the validity and reliability of the measure.

The first step in obtaining such a sample size will involve obtaining sufficient funding sources to support a large research team, adequate study materials, and incentives for children, caregivers, *and* therapists. In addition, although researchers have suggested a number of recruitment strategies for both community agencies and hard-to-reach populations, such as youth with trauma histories, very little empirical data exists regarding the efficacy of these methods. It is argued that future research examine recruitment strategies by direct comparison of various

recruitment methods to determine which are most effective at yielding higher rates of participation from both community agencies and youth with trauma histories. For instance, it is unclear if the incentive of \$5.00 gift cards at each assessment Time for caregivers was sufficient as an incentive. More research is needed regarding effective recruitment strategies, including the use of incentives and what qualifies as an incentive.

Conclusion

This study involved the development of the SEQ, a childhood trauma exposure assessment including non-criterion A events and the ability to report the frequency of incidents. This study also included the development of the DTDQ, a measure that assessed for the effect of complex or multiple exposures to trauma on developmental trauma disorder symptoms (DTD; van der Kolk, 2005). Both the SEQ and DTDQ included a child and caregiver version, which increases applicability of both measures. Results provided preliminary support for the reliability and validity of both versions of both measures, as well as helpful feedback for future revisions. Results also provided empirical support for a broadened A1 criterion and as well as support for DTD criteria. Implications include the use of the SEQ in standard trauma assessments, as well as universal screenings for childhood victimization. Further, this research supported inclusion of DTD in formal diagnostic systems. Future research can expand upon this study by utilizing larger and more representative sample sizes as well as determining best practices for recruiting hard-to-reach populations.

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Table 1

Youth Participant Demographic Information

		<i>n</i>	Percent	Mean	SD
Age in Years				12.81	2.93
	Eight	3	9.4		
	Nine	1	3.1		
	Ten	6	18.8		
	Eleven	3	9.4		
	Twelve	1	3.1		
	Thirteen	1	3.1		
	Fourteen	7	21.9		
	Fifteen	3	9.4		
	Sixteen	3	9.4		
	Seventeen	4	12.5		
Gender					
	Female	18	56.3		
	Male	14	43.8		
	Missing	4			
	Total	36			

Table 2

Caregiver Participant Demographic Information

		<i>n</i>	Percent
Gender	Female	18	78.3
	Male	5	21.7
	Missing	13	36.1
	Total	36	100
Ethnicity	American Indian	1	4.3
	Non-Hispanic White	21	91.3
	Other	1	4.3
	Missing	13	36.1
	Total	36	100
Sexual Orientation	Heterosexual	16	94.1
	Lesbian	1	5.8
	Missing	19	52.8
	Total	36	100
Religious Affiliation	"Agnostic"	1	5.3
	"Catholic"	1	5.3
	"Christian"	5	26.3
	"Lutheran"	1	5.3
	"Mormon LDS"	2	10.5
	"Non-denominational"	2	10.5
	"Wica"	3	15.8
	"None"	4	21.1
	Missing	17	47.2
	Total	36	100
Relationship Status	Single	3	13
	Separated	1	4.3
	Married	14	60.9
	Steady dating relationship	3	13
	Divorced	2	8.7

	Missing	13	36.1
	Total	36	100
Employment Status			
	Unemployed	8	42.1
	Part time	1	5.3
	Full time	10	52.6
	Total	19	100
	Missing	17	47.2
	Total	36	100
Household income per year			
	Less than \$20,000	5	26.3
	\$20,000-\$40,000	11	57.9
	\$40,000-\$60,000	2	10.5
	\$80,000-\$100,000	1	5.3
	Total	19	100
	Missing	17	47.2
	Total	36	100
Parent education status			
	High school degree/GED	1	5
	Some college	7	35
	Associate's Degree	7	35
	4 year degree	3	15
	Advanced Degree	2	10
	Total	20	100
	Missing	16	44.4
	Total	36	100

Table 3

Reported Youth Participant Diagnoses

	<i>n</i>	Percent
ADHD	10	38.4
PTSD	9	34.6
Depression	7	26.9
Anxiety disorder	4	15.4
Reactive attachment disorder	3	11.5
None	3	11.5
Learning disability	2	7.7
Disruptive mood disorder	2	7.7
Major depressive disorder w/psychotic symptoms	2	7.7
Oppositional defiant disorder	2	7.7
Social anxiety	2	3.8
Reading disability	1	3.8
Developmental delay	1	3.8
Autism	1	3.8
Dysthymia	1	3.8
Social communication disorder	1	3.8
Psychotic disorder	1	3.8
Impulse control disorder	1	3.8
Bipolar 2	1	3.8
R/o borderline personality disorder	1	3.8
Missing from <i>N</i> = 36	10	27.7
Total codeable responses	26	72.2

Table 4

Number of Diagnoses Youth Received

	<i>n</i>	Percent
Four diagnoses	1	3.8
Three diagnoses	7	2.7
Two diagnoses	11	4.2
One diagnosis	4	15.4
No diagnoses reported	3	11.5
Missing from <i>N</i> = 36	10	27.7
Total codeable responses	26	72.2

Table 5

Reported Youth Prescribed Psychotropic Medications

	<i>n</i>	Percent
None	7	36.8
Abilify	5	26.3
Atarax	5	26.3
Vyvanse	4	21.1
Zoloft	3	15.8
Effexor	3	15.8
Concerta	2	10.5
Wellbutrin	2	10.5
Clonazepam	1	5.3
Lamictal	1	5.3
Seroquel	1	5.3
Prozac	1	5.3
Prazosin	1	5.3
Risperdal	1	5.3
Desmopressin	1	5.3
Metadate CD	1	5.3
Strattera	1	5.3
Missing from $N = 36$	17	47.2
Total codeable responses	19	52.7

Table 6

Number of Psychotropic Medications Youth Prescribed

	<i>n</i>	Percent
Four medications	2	10.5
Three medications	3	15.8
Two medications	7	10.5
One medication	5	26.3
No medications reported	2	10.5
Missing from <i>N</i> = 36	17	47.2
Total codeable responses	26	52.7

Table 7

Length of Time Child Has Received Mental Health Services

	<i>n</i>	Percent
<1 year	3	15
1-2 years	6	30
3-5 years	5	25
6-10 years	3	15
More than 10 years	3	15
Missing from <i>N</i> = 36		
	16	44
Total Codeable Responses	20	55.5

Table 8

Recruited Agencies/Provider Type and Number of Packets Delivered and Received

Referral Source	Packets Delivered and/or Quoted Number of Likely Participants	Packets Completed
10 mental health agencies	192	25
5 private practice therapist	16	11
2 school psychologists	5	0
Total	213	36

Table 9

Questionnaire Administration: Measures Included in Assessment Time 1 and Time 2

Measures	Time 1	Time 2 (1-2 weeks later)
SEQ/SEQ-C	X	X
DTDQ/DTDQ-C	X	X
UPRI	X	
SDQ	X	
Demographic forms	X	
Clinician Observation Form	X	X

Table 10

Reported Frequencies of Stressful Experiences from the Child SEQ Time 1

Item number	Item Description	Frequency (<i>N</i> = 35)	<i>M</i>	<i>SD</i>	Scale
29	Move houses, towns, states	30	0.88	0.33	Other family distress
28	Parents divorced/separated	22	0.65	0.49	Other family distress
40	Verbal bullying	20	0.62	0.50	Peer-related stressors
35	Emotional abuse	18	0.50	0.51	Family violence/maltreatment
30	Loved one commit serious crime	18	0.54	0.51	Other family distress
31	Made to leave home: CPS	17	0.46	0.51	Family violence/maltreatment
26	Other with mental illness/substance abuse: home	17	0.46	0.51	Other family distress
39	Relational bullying	16	0.46	0.51	Peer-related stressors
25	Loved one serious illness	13	0.38	0.50	Other family distress
19	Physical abuse: family	11	0.35	0.49	Family violence/maltreatment
21	Spanked leaving injury	11	0.35	0.49	Family violence/maltreatment
27	Loved one attempted suicide	10	0.23	0.43	Other family distress
6	Seen dead body	9	0.27	0.45	Community violence
11	Witness beating: community	9	0.31	0.47	Community violence
20	Witness abuse: family	9	0.31	0.47	Family violence/maltreatment
33	Not enough to eat, dirty clothes, etc	9	0.19	0.40	Family violence/maltreatment
18	Serious injury loved one	9	0.27	0.45	Other family distress
22	Private parts touched	9	0.27	0.45	Sexual abuse

47	Other stressful situation	9	0.31	0.47	N/A
10	Physical harm/threat: community	8	0.23	0.43	Community violence
34	Left alone, felt unprotected	8	0.19	0.40	Family violence/ maltreatment
13	Scary/painful medical treatment	8	0.19	0.40	Other physical threat
36	Sibling abuse	7	0.19	0.40	Family violence/ maltreatment
38	Diversity-related aggression	7	0.19	0.40	Peer-related stressors
7	Attacked with weapon	6	0.15	0.37	Community violence
32	Caregiver multiple partners	6	0.15	0.37	Other family distress
2	Other natural disaster	6	0.12	0.33	Other physical threat
44	Cyberbullying: harassment	6	0.12	0.33	Peer-related stressors
24	Other unwanted sexual contact	6	0.12	0.33	Sexual abuse
37	Historical trauma	5	0.15	0.37	Other family distress
9	Bad accident (e.g., car)	5	0.15	0.37	Other physical threat
45	Physical bullying	5	0.12	0.33	Peer-related stressors
23	Forced to touch private part	5	0.15	0.37	Sexual abuse
14	Mugging (i.e., w/weapon)	4	0.15	0.37	Community violence
8	Life threatening illness	4	0.08	0.27	Other physical threat
43	Cyberbullying: privacy threat	4	0.08	0.27	Peer-related stressors
46	Child pornography	4	0.15	0.37	Sexual abuse
15	Robbery (i.e., without weapon)	3	0.08	0.27	Community violence
16	Home break-in: not home	3	0.08	0.27	Community violence
12	Murder of loved one	3	0.12	0.33	Community violence
3	Man-made disaster	3	0.12	0.33	Other physical threat

42	Dating violence	3	0.12	0.33	Peer-related stressors
17	Home break-in: home	2	0.08	0.27	Community violence
41	Hazing	2	0.04	0.20	Peer-related stressors
4	Radioactivity/chemical exposure	1	0.04	0.20	Other physical threat

Table 11

Reported Frequencies of Stressful Experiences from the SEQ-C Time 1

Item Number	Item Description	Frequency (N = 30)	M	SD	Scale
32	Moved houses, towns, states	28	0.95	0.22	Other family distress
29	Parents divorce/separation	23	0.80	0.41	Other family distress
40	Verbal bullying	23	0.80	0.41	Peer-related stressors
26	Other with mental illness/substance abuse: home	21	0.75	0.44	Other family distress
27	Loved one commit serious crime	20	0.70	0.47	Other family distress
34	Emotional abuse	18	0.70	0.47	Family violence/maltreatment
18	Witness abuse: home	17	0.65	0.49	Family violence/maltreatment
28	Made to leave home: CPS	17	0.60	0.50	Family violence/maltreatment
30	Left alone, felt unprotected	17	0.50	0.51	Family violence/maltreatment
39	Relational bullying	17	0.60	0.50	Peer-related stressors
19	Spanked leaving injury	16	0.60	0.50	Family violence/maltreatment
31	Not enough to eat, dirty clothes, etc.	16	0.50	0.51	Family violence/maltreatment
33	Caregiver multiple partners	16	0.50	0.51	Other family distress
7	Scary/painful medical treatment	13	0.50	0.51	Other physical threat
21	Private parts touched	12	0.45	0.51	Sexual abuse
45	Other stressful event	12	0.45	0.51	N/A
16	Physical harm/threat:community	10	0.30	0.47	Community violence
10	Serious injury loved one	10	0.40	0.50	Other family distress

24	Loved one serious illness	8	0.25	0.44	Other family distress
25	Loved one attempted suicide	8	0.30	0.47	Other family distress
38	Physical bullying	7	0.25	0.44	Peer-related stressors
22	Forced to touch private part	7	0.30	0.47	Sexual abuse
35	Sibling abuse	6	0.25	0.44	Family violence/maltreatment
46	Other hard experience	6	0.20	0.41	N/A
36	Historical trauma	5	0.10	0.31	Other family distress
23	Other unwanted sexual contact	5	0.20	0.41	Sexual abuse
44	Child pornography	5	0.10	0.31	Sexual abuse
17	Witness beating: community	3	0.05	0.22	Community violence
8	Life threatening illness	3	0.10	0.31	Other physical threat
37	Diversity-related aggression	3	0.10	0.31	Peer-related stressors
42	Cyberbullying: harassment	3	0.10	0.31	Peer-related stressors
9	Seen dead body	2	0.05	0.22	Community violence
11	Mugging	2	0.10	0.31	Community violence
13	Murder of loved one	2	0.05	0.22	Community violence
14	Break in: not home	2	0.05	0.22	Community violence
15	Break in: home	2	0.05	0.22	Community violence
6	Bad accident (e.g., car)	2	0.10	0.31	Other physical threat
41	Cyberbullying: identity threat	2	0.05	0.22	Peer-related stressors
20	Attacked with weapon	1	0.05	0.22	Community violence
2	Other disaster	1	0.05	0.22	Other physical threat
43	Hazing	1	0.05	0.22	Peer-related stressors

Table 12

Child SEQ Internal Reliability by Scale and Total

Scale construct	α	Number of items
Community violence	0.71	8
Family violence/maltreatment	0.6	10
Other family distress	0.53	8
Other physical threat	-0.03	6
Peer-related stressors	0.79	8
Sexual abuse	0.73	4
Total	0.81	45

Table 13

Caregiver SEQ Internal Reliability by Scale and Total

Scale construct	α	Number of items
Community violence	0.135	8
Family violence/maltreatment	0.46	7
Other family distress	0.36	9
Other physical threat	0.18	4
Peer-related stressors	0.47	7
Sexual abuse	0.81	4
Total	0.57	42

Table 14

Relationship Between Child Age and Trauma Type: Pearson Product Moment Correlation Coefficient

SEQ Scale construct	Child SEQ	Caregiver SEQ
Community violence	.45*	0.22
Family violence/ maltreatment	0.13	-0.05
Other family distress	-0.04	0.02
Other physical threat	-0.39*	-0.11
Peer-related stressors	0.17	0.34
Sexual abuse	0.1	-0.1
Total frequency of incidents	0.26	0.27

* $p < .05$

Table 15

Therapist Observation of Difficult SEQ Items for Child

Item Number	Question	Therapist Feedback
8	“Have you ever had a serious or life-threatening illness?”	Child asked for clarification of what is serious
14	“Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?”	Asks for two different things, answers might be different
17	“Has anyone ever tried to or succeeded in breaking into your home while you were there?”	Child asked, "Does SWAT count?"
21	“Has anyone in your family ever beaten, spanked, or pushed you hard enough to cause injury?”	Child asked, "Can it be more than one family member?"
26	“Did you live with someone who had an emotional problem or used drugs or alcohol so much that it caused trouble at home?”	Asks for two different things
41	“As part of being allowed to join a group, like a football team, social club, or dance team, were you ever forced to do something embarrassing, or something that might hurt your body in order to be accepted into the group?”	Asks for two different things, answers might be different
47	“Did you ever experience any other extraordinarily stressful situation or event?”	Asked for clarification if this meant something not already asked

Table 16

Therapist Observation of Difficult SEQ Items for Caregiver

Item Number	Question	Therapist Feedback
8	“Has your child ever had a serious or life-threatening illness?”	Caregiver wondered if depression applied, as caregiver considered life-threatening
16	“Has your child ever been beaten up, shot at, or threatened to be hurt badly?”	Unspecified
17	"Has your child ever seen someone in your community being beaten up, shot at, or killed?"	Caregiver wondered if it would apply if it happened before the child would be able to remember

Table 17

Reported Frequencies of DTD Symptoms from the Child DTDQ Time 1

Item number	Item Description	Frequency (<i>N</i> = 36)	<i>M</i>	<i>SD</i>	Scale
1a.	Difficulty controlling emotions	22	0.62	0.50	Dysregulation in response to trauma cues
1b.	Frequent physical problems	11	0.38	0.50	Dysregulation in response to trauma cues
1c.	Acting out bad experience(s) while playing	3	0.12	0.33	Dysregulation in response to trauma cues
1d.	Self-harm	7	0.19	0.40	Dysregulation in response to trauma cues
1e.	Flashbacks, detachment	9	0.31	0.47	Dysregulation in response to trauma cues
1f.	Clinginess, misbehavior, or acting too perfect	14	0.38	0.50	Dysregulation in response to trauma cues
2a.	Self-blame/ disgust	15	0.42	0.50	Altered attributions/expectancies
2b.	Difficulty trusting caregivers	11	0.35	0.49	Altered attributions/expectancies
2c.	Thinks bad things will happen again	12	0.31	0.47	Altered attributions/expectancies
2d.	Feeling unprotected	8	0.19	0.40	Altered attributions/expectancies
3a.	Difficulty at home	14	0.38	0.50	Functional impairment
3b.	Difficulty at school	18	0.50	0.51	Functional impairment
3c.	Difficulty with friends	11	0.27	0.45	Functional impairment
3d.	Difficulty with the law	5	0.19	0.40	Functional impairment
3e.	Difficulty with job	1	0.04	0.20	Functional impairment

Table 18

Reported Frequencies of DTD Symptoms from the Caregiver DTDQ Time 1

Item number	Item Description	Frequency (<i>N</i> = 36)	<i>M</i>	<i>SD</i>	Scale
1a.	Difficulty controlling emotions	20	0.65	0.49	Dysregulation in response to trauma cues
1b.	Frequent physical problems	13	0.42	0.50	Dysregulation in response to trauma cues
1c.	Acting out bad experience(s) while playing	4	0.13	0.34	Dysregulation in response to trauma cues
1d.	Self-harm	10	0.32	0.48	Dysregulation in response to trauma cues
1e.	Flashbacks, detachment	7	0.23	0.43	Dysregulation in response to trauma cues
1f.	Clinginess, misbehavior, or acting too perfect	15	0.48	0.51	Dysregulation in response to trauma cues
2a.	Self-blame/ disgust	11	0.35	0.49	Altered attributions/ expectancies
2b.	Difficulty trusting caregivers	15	0.48	0.51	Altered attributions/ expectancies
2c.	Thinks bad things will happen again	12	0.39	0.50	Altered attributions/ expectancies
2d.	Feeling unprotected	6	0.19	0.40	Altered attributions/ expectancies
3a.	Difficulty at home	23	0.74	0.44	Functional impairment
3b.	Difficulty at school	19	0.61	0.50	Functional impairment
3c.	Difficulty with friends	12	0.39	0.50	Functional impairment
3d.	Difficulty with the law	5	0.16	0.37	Functional impairment
3e.	Difficulty with job	1	0.03	0.18	Functional impairment

Table 19

Child DTDQ Internal Reliability by Scale and Total

Scale construct	α	Number of items
Dysregulation in response to trauma cues	0.72	6
Altered attributions/ expectancies	0.77	4
Functional impairment	0.41	5
Total	0.83	4

Table 20

Caregiver DTDQ Internal Reliability by Scale and Total

Scale construct	α	Number of items
Dysregulation in response to trauma cues	0.78	6
Altered attributions/ expectancies	0.87	4
Functional impairment	0.73	5
Total	0.91	4

Table 21

Discriminant Validity of Child & Caregiver DTDQ: Correlations between SDQ Scales and DTDQ Total

SDQ Scale	Child Version, Pearson Correlation	Caregiver Version, Pearson Correlation
Emotional symptoms	0.42*	0.64**
Conduct problems	0.11	0.49*
Hyperactivity/ inattention	-0.01	0.13
Peer relationships problems	0.16	0.15
Prosocial behavior	0.1	-0.06
Total	0.27	0.53*

* $p < .05$

** $p < .01$

Table 22

Predicting DTDQ Scores According to Frequency of Trauma Incidents, Self-Report

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	2.61	0.92	
Frequency of Incidents	0.06	0.02	0.47*

* $p < .01$

Table 23

Predicting DTDQ Scores According to Frequency of Trauma Incidents, Caregiver-Report

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	8.75	0.79	
Child Gender	-6.48	1.24	.72**
Excluded variables			
Frequency of Incidents	0.26*		

* $p = .07$

** $p < .001$

Table 24

Summary of Significant Psychometric Properties of the SEQ and DTDQ

Measure	Internal reliability: Cronbach's α	Test-retest reliability: correlation coefficient	Convergent validity: correlation coefficient, (related measure)	Discriminant validity: correlation coefficient, (unrelated measure)
Child SEQ				
Y or No Frequency of Incidents Upsetting	0.81	.79** .83** .75**	.53** (UPRI exposure & traditional trauma SEQ items)	.28 (UPRI exposure & potential trauma SEQ items)
Caregiver SEQ				
Y or No Frequency of Incidents Upsetting	0.57	.76** .85** .86**	.65** (UPRI exposure & traditional trauma SEQ items)	.18 (UPRI exposure & potential trauma SEQ items)
Child DTDQ				
Total	0.83	.73**	.83** (UPRI symptoms)	.1 (SDQ, prosocial scale)
Caregiver DTDQ				
Total	0.91	.74**	.43* (UPRI symptoms)	-.06 (SDQ, prosocial scale)

* $p < .05$ ** $p < .01$

Table 25

Mean and SD for Child and Caregiver SEQ Total, DTDQ Total

Statistic		Child SEQ	Caregiver SEQ
<i>n</i>	Valid	26	20
	Missing	10	16
<i>M</i>		11.15	13.65
<i>SD</i>		5.90	3.86
		Child DTDQ	Caregiver DTDQ
<i>n</i>	Valid	35	31
	Missing	1	5
<i>M</i>		4.60	5.58
<i>SD</i>		3.61	4.53

Appendix A

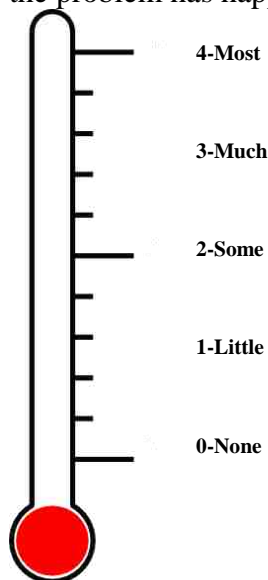
UCLA PTSD Reaction Index, Self-Report, (UPRI; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998)

Below is a list of VERY SCARY, DANGEROUS OR VIOLENT things that sometimes happen to people. These are times where someone was HURT VERY BADLY OR KILLED, or could have been. Some people have had these experiences; some people have not had these experiences. Please be honest in answering if the violent thing happened to you, or if it did not happen to you.

FOR EACH QUESTION: Check “Yes” if this scary thing HAPPENED TO YOU
Check “No” if it DID NOT HAPPEN TO YOU

1) Being in a big earthquake that badly damaged the building you were in.	Yes []	No []
2) Being in another kind of disaster , like a fire, tornado, flood or hurricane.	Yes []	No []
3) Being in a bad accident , like a very serious car accident.	Yes []	No []
4) Being in a place where a war was going on around you.	Yes []	No []
5) Being hit, punched, or kicked very hard at home. (DO NOT INCLUDE ordinary fights between brothers and sisters).	Yes []	No []
6) Seeing a family member being hit, punched, or kicked very hard at home. (DO NOT INCLUDE ordinary fights between brothers and sisters).	Yes []	No []
7) Being beaten up, shot at or threatened to be hurt badly in your town.	Yes []	No []
8) Seeing someone in your town being beaten up, shot at or killed .	Yes []	No []
9) Seeing a dead body in your town (do not include funerals).	Yes []	No []
10) Having an adult or someone much older touch your private sexual body parts when you did not want them to.	Yes []	No []
11) Hearing about the violent death or serious injury of a loved one.	Yes []	No []
12) Having painful and scary medical treatment in a hospital when you were very sick or badly injured.	Yes []	No []

Here is a list of problems people sometimes have after very bad things happen. **READ** each problem on the list carefully. **CIRCLE ONE** of the numbers (0, 1, 2, 3 or 4) that tells how often the problem has happened to you **in the past month**.



PLEASE BE SURE TO ANSWER ALL THE QUESTIONS

HOW MUCH OF THE TIME DURING THE PAST MONTH	None	Little	Some	Much	Most
13) I watch out for danger or thing that I am afraid of.	0	1	2	3	4
14) When something reminds me of what happened, I get very upset, afraid or sad.	0	1	2	3	4
15) I have upsetting thoughts, pictures, or sounds of what happened come into my mind when I do not what them to.	0	1	2	3	4
16) I feel grouchy, angry or mad.	0	1	2	3	4
17) I have dreams about what happened or other bad dreams.	0	1	2	3	4
18) I feel like I am back at the time when the bad thing happened, living through it again.	0	1	2	3	4
19) I feel like staying by myself and not being with my friends.	0	1	2	3	4
20) I feel alone inside and not close to other people	0	1	2	3	4
21) I try not to talk about, think about, or have feelings about what happened.	0	1	2	3	4
22) I have trouble feeling happiness or love.	0	1	2	3	4
23) I have trouble feeling sadness or anger.	0	1	2	3	4
24) I feel jumpy or startle easily, like when I hear a loud noise or when something surprises me.	0	1	2	3	4

25) I have trouble going to sleep or I wake up often during the night.	0	1	2	3	4
26) I think that some part of what happened is my fault.	0	1	2	3	4
27) I have trouble remembering important parts of what happened.	0	1	2	3	4
28) I have trouble concentrating or paying attention.	0	1	2	3	4
29) I try to stay away from people, places, or things that make me remember what happened.	0	1	2	3	4
30) When something reminds me of what happened, I have strong feelings in my body, like my heart beats fast, my head aches, or my stomach hurts.	0	1	2	3	4
31) I think that I will not live a long life.	0	1	2	3	4
32) I have arguments or physical fights.	0	1	2	3	4
33) I feel pessimistic or negative about my future.	0	1	2	3	4
34) I am afraid that the bad thing will happen again.	0	1	2	3	4

UCLA PTSD Reaction Index, Caregiver Report, (UPRI; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998)

Below is a list of VERY SCARY, DANGEROUS OR VIOLENT things that sometimes happen to children. These are times where someone was HURT VERY BADLY OR KILLED, or could have been. Some children have had these experiences, some children have not had these experiences. Please be honest in answering if the violent thing happened to your child, or if it did not happen to your child.

FOR EACH QUESTION: Check "Yes" if this scary thing HAPPENED TO YOUR CHILD
Check "No" if it DID NOT HAPPEN TO YOUR CHILD

- 1) Being in a big earthquake that badly damaged the building your child was in. Yes [] No []

 - 2) Being in another kind of **disaster**, like a fire, tornado, flood or hurricane. Yes [] No []

 - 3) Being in a bad **accident**, like a **very serious** car accident. Yes [] No []

 - 4) Being in a place where a **war** was going on around your child. Yes [] No []

 - 5) Being **hit, punched, or kicked very hard** at home. Yes [] No []
(**DO NOT INCLUDE** ordinary fights between brothers and sisters).

 - 6) Seeing a family member being **hit, punched, or kicked very hard** at home. Yes [] No []
(**DO NOT INCLUDE** ordinary fights between brothers and sisters).

 - 7) Being **beaten up, shot at or threatened to be hurt badly** in your town. Yes [] No []

 - 8) Seeing someone in your town being **beaten up, shot at or killed**. Yes [] No []

 - 9) Seeing a **dead body** in your town (do not include funerals). Yes [] No []

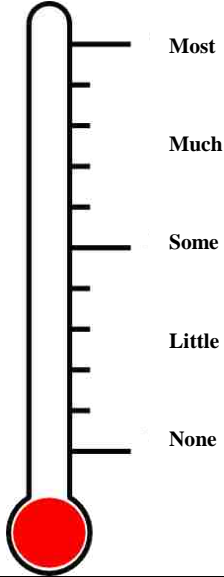
 - 10) Having an adult or someone much older touch your child's **private sexual body parts** when your child did not want them to. Yes [] No []

 - 11) Hearing about the **violent death or serious injury** of a loved one. Yes [] No []

 - 12) Having **painful and scary medical treatment in a hospital** when your child was very sick or badly injured. Yes [] No []
-

Here is a list of problems children sometimes have after very stressful experiences. Read each problem on the list carefully. **CIRCLE** one of the numbers (0, 1, 2, 3, 4 or 5) that tells how often the problem has happened to your child **in the past month**. Note: If you are unsure about how often your child has experiences a particular problem, then try to make your best estimation.

Only circle “**Don’t Know**” if you absolutely **cannot** give an answer. **PLEASE BE SURE TO ANSWER ALL QUESTIONS.**



	None	Little	Some	Much	Most	Don't Know
13 My child watches out for danger or things that he/she is afraid of.	0	1	2	3	4	5
14 When something reminds my child of what happened he/she gets very upset, scared or sad.	0	1	2	3	4	5
15 My child has upsetting thoughts, pictures or sounds of what happened come into his/her mind when he/she does not want them to.	0	1	2	3	4	5
16 My child feels grouchy, angry or mad.	0	1	2	3	4	5
17 My child has dreams about what happened or other bad dreams.	0	1	2	3	4	5
18 My child has flashbacks about what happened; he/she feels like he/she is back at the time when the bad thing happened living through it again.	0	1	2	3	4	5
19 My child feels like staying by him/her self and not being with his/her friends.	0	1	2	3	4	5
20 My child feels alone inside and not close to other people.	0	1	2	3	4	5
21 My child tries not to talk about, think about, or have feelings about what happened.	0	1	2	3	4	5
22 My child has trouble feeling happiness or love.	0	1	2	3	4	5

23	My child has trouble feeling sadness or anger.	0	1	2	3	4	5
24	My child feels jumpy or startles easily, for example, when he/she hears a loud noise or when something surprises him/her.	0	1	2	3	4	5
25	My child has trouble going to sleep or wakes up often during the night.	0	1	2	3	4	5
26	My child feels that some part of what happened is his/her fault.	0	1	2	3	4	5
27	My child has trouble remembering important parts of what happened.	0	1	2	3	4	5
28	My child has trouble concentrating or paying attention.	0	1	2	3	4	5
29	My child tries to stay away from people, places, or things that make him/her remember what happened.	0	1	2	3	4	5
30	When something reminds my child of what happened, he/she has strong feelings in his/her body like heart beating fast, headaches, or stomach aches.	0	1	2	3	4	5
31	My child thinks that he/she will not live a long life.	0	1	2	3	4	5
32	My child is afraid that the bad thing will happen again.	0	1	2	3	4	5
33	My child plays games or draws pictures that are like some part of what happened.	0	1	2	3	4	5

Appendix B

Stressful Events Questionnaire: Ages 8-17

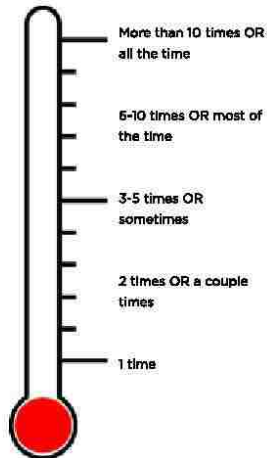
Below you will see a bunch of questions about bad life events that sometimes happen to kids. These events happen more than we would like them to. If these events happen to a kid, they can sometimes change how that kid feels and thinks about things. The more we know about these events, and how kids feel about them, the better we can stop them from happening again. We can also learn more about how to help kids when these events happen.

For each question, please circle NO if it did not happen to you or YES if it did happen to you. If it did happen, circle how many times it happened. If you are not sure, give your best guess.

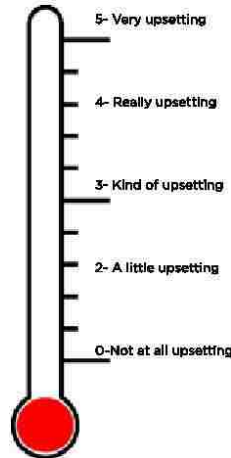
Also, for each event that happened please circle how upsetting it was for you. If you circle 0, it means it was not upsetting. If you circle 5, it means it was very upsetting. You can pick any number from 0-5 to show how much that event upset you.

You can use the pictures below to help you.

How many times:



How upsetting:



1. Have you been in a big earthquake that badly damaged the building you were in?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

2. Have you been in another kind of disaster, like a fire (accidental), tornado, flood, or hurricane?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

3. Have you ever experienced a “man-made” disaster such as a bank robbery, fire (arson), terrorist attack, etc., where you felt you or your loved ones were in danger of death or injury?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

4. Has you ever been exposed to dangerous chemicals or radioactivity that might threaten your health?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

5. Have you ever been in a place where a war was going on around you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

6. Other than at funerals or on TV, have you ever seen a dead body?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

7. Has anyone, including family members or friends, ever attacked you with a gun, knife or some other weapon?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

8. Have you ever had a serious or life-threatening illness?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

9. Have you ever been in a bad accident, like a very serious car accident?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

10. Have you ever been beaten up, shot at or threatened to be hurt badly in your community?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

11. Have you ever seen someone in your town being beaten up, shot at or killed?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

12. Have you ever had a close friend or family member murdered, or killed by a drunk driver?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

13. Have you had a painful and scary medical treatment in a hospital when you were very sick or badly injured?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

14. Has anyone ever tried to take something directly from you by using force or the threat of force, such as a stick-up or mugging?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

15. Has anyone ever attempted to rob you or actually robbed you without the use of force or weapon?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

16. Has anyone ever attempted to or succeeded in breaking into your home when you weren't there?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

17. Has anyone ever tried to or succeeded in breaking into your home while you were there? If yes, how many times has this happened?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

18. Have you ever heard about the violent death or serious injury of a loved one?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

19. Have you ever been hit, punched or kicked very hard at home? (DO NOT INCLUDE ordinary fights between brothers & sisters).

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

20. Have you ever seen a family member being hit, punched or kicked very hard at home? (DO NOT INCLUDE ordinary fights between brothers & sisters)

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

21. Has anyone in your family ever beaten, "spanked" or pushed you hard enough to cause injury?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

22. Has an adult or someone much older than you ever touched your private sexual body parts when you did not want them to?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

23. Has anyone ever made you touch their private body parts under force or threat?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

24. Other than things mentioned in Questions 22 and 23, have there been any other situations in which another person tried to force you to have unwanted sexual contact?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

25. Did someone close to you, like a family member or good friend, have a serious illness, like cancer, AIDS, or something else?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

26. Did you live with someone who had an emotional problem or used drugs or alcohol so much that it caused trouble at home?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

27. Did someone close to you, like someone in your family or a good friend, try to kill themselves?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

28. Did your parents get divorced or separated?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

29. Did you move to a different house, a different town, or a different state?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

30. Did someone close to you, like a family member or good friend, go to prison or commit a serious crime (even if they did not get caught)?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

31. Were you ever made to leave your home by the police or Child Protective Services?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

32. Did the person that took care of you have many different boyfriends or girlfriends sleep at your house, live at your house, or take care of you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

33. Did you ever not have enough to eat, have to wear dirty clothes, or not have someone to take you to the doctor even though you needed it?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

34. Did you feel that there was no one to take care of you or protect you, make you feel loved, special, or wanted? Or, do you feel you were left home alone too much?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

35. Did you ever feel that someone in your family did not like you, or did people in your family say mean things to you, like “you’re ugly/stupid,” or curse at you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

36. Did you have a brother or sister that hurt you very badly, like leaving a mark on your body after spanking you, or throwing things at you, in a way that was not ‘normal’ fighting between brothers and sisters?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

37. Did people in your family or your community tell stories about bad things that happened to your family or community members that were upsetting or scary to learn or hear about?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

38. Were you ever hurt with words or did someone hurt your body because of your skin color, because you are a boy or girl, or because of your religion?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

39. Has someone at school told rumors or gossip about you, ignored you on purpose, or tried to make your friends turn against you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

40. Has someone at school called you names, yelled or cursed at you, or made fun of you or teased you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

41. As part of being allowed to join a group, like a football team, social club, or dance team, were you ever forced to do something embarrassing, or something that might hurt your body in order to be accepted into the group?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

42. Were you ever in a romantic relationship with someone who hurt you physically or emotionally? That is, did your boyfriend or girlfriend ever kick, push, or hit you? Did he or she ever threaten you, call you really bad names, or say they would hurt themselves if you broke up with them?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

43. Has anyone ever broken into your email or IM program to steal information, pretended to be you online, or sent you a virus on purpose?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

44. Did another person close to your age ever make threats to you by email or cell phone, tell gossip about you over the internet, threaten you online, or forward/post private information about you?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

45. Did another person close to your age that went to your school or lived in your neighborhood ever punch you, kick you, damage your stuff, beat you up, or hurt your body in some way?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

46. Did someone older than you ever take pictures or movies of you while you were naked or doing sexual things or show you pictures or movies of other people that were naked or doing sexual things?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

47. Did you ever experience any other extraordinarily stressful situation or event?

No Yes

If yes, please tell what happened?

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Very

Stressful Events Questionnaire: Parent Report

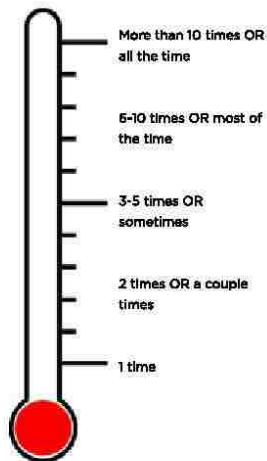
The following is a series of questions about serious or traumatic life events that sometimes happen to kids under age 8. Although we would like to believe they are rare, these types of events actually occur with some regularity, and they can affect how children feel, behave, and/or think. Knowing about the occurrence of such events, and how children react to them, will help us to develop programs for prevention, education, and other services. Some questions will be about your child's "primary caregiver." This is defined as the person who takes care of your child most of the time, and could refer to you or someone else. It is possible that your child's primary caregiver has changed over the course of his/her life.

For each event, please indicate (circle: No or Yes) whether it happened to your child, and if it did, the number of times (give your best guess if you are not sure).

Also, for each event please indicate (circle) how upsetting you believe it was for your child, on a scale from 0 (Not at all) to 5 (Very).

You can use the pictures below to help you.

How many times:



How upsetting:



1. Has your child been in a big earthquake that badly damaged the building he/she was in?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

2. Has your child been in another kind of natural disaster, like a fire, tornado, flood or hurricane?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

3. Has your child ever experienced a “man-made” disaster such as a bank robbery, fire (arson), terrorist attack, etc., where your child felt he/she or his/her loved ones were in danger of death or injury?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

4. Has your child ever been exposed to dangerous chemicals or radioactivity that might threaten your child’s health?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

5. Has your child ever been in a place where a war was going on around him or her?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

6. Has your child ever been in a bad accident, like a very serious car accident?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

7. Has your child had a painful and scary medical treatment in a hospital when he/she was very sick or badly injured?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

8. Has your child ever had a serious or life-threatening illness?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

9. Other than at a funeral (or on television), has your child ever seen a dead body?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

10. Has your child ever heard about the violent death or serious injury of a loved one?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

11. Has anyone ever tried to take something directly from your child by using force or the threat of force, such as a stick-up or mugging?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

12. Has anyone ever attempted to rob your child or actually robbed your child without the use of force or weapon?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

13. Has your child ever had a close friend or family member murdered, or killed by a drunk driver?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

14. Has anyone ever attempted to or succeeded in breaking into your child's home when your child wasn't there?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

15. Has anyone ever tried to or succeeded in breaking into your child's home while your child was there?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

16. Has your child ever been beaten up, shot at or threatened to be hurt badly?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

17. Has your child ever seen someone in your community being beaten up, shot at or killed?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

18. Has your child ever seen a family member being hit, punched or kicked very hard at home? (DO NOT INCLUDE ordinary fights between brothers & sisters).

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

19. Has anyone in your child's family ever beaten, "spanked" or pushed your child hard enough to cause injury?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

20. Has anyone, including family members or friends, ever attacked your child with a gun, knife or some other weapon?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

21. Has an adult or someone much older than your child ever touched your child's private sexual body parts when your child did not want them to?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

22. Has anyone ever made your child touch their private body parts under force or threat?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

23. Other than incidents mentioned in Questions 21 and 22, have there been any other situations in which another person tried to force your child to have unwanted sexual contact?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

24. Was someone close to your child, like a family member or good friend, diagnosed with a serious illness, such as cancer, leukemia, AIDS, multiple sclerosis, etc?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

25. Did someone close to your child, like a family member or good friend, attempt or commit suicide?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

26. Did your child live with someone who had a mental illness and/or used drugs or alcohol, such that it caused trouble at home?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

27. Did someone close to your child, like a family member or good friend, go to prison or commit a serious crime (regardless of whether or not they got caught)?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

28. Has your child ever been removed from their caregivers' home by authorities, the state, or Child Protective Services?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

29. Did your child's parents or caregivers get divorced or separated?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

30. Did your child ever feel that there was no one to take care of or protect her/him, make her/him feel loved, special, or wanted? Or, did your child feel she/he was left home alone too much?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

31. Did your child ever not have enough to eat, have to wear dirty clothes, or not have someone to take him/her to the doctor even though he/she needed it?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

32. Did your child move to a different house, a different town, or a different state?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

33. Sometimes, the adult who is responsible for taking care of a child might have many different romantic partners sleep at their house, live at their house, or take care of the child. Did this happen to your child?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

34. Did your child ever feel that someone in your family strongly disliked him/her, or did people in your family say hurtful things to your child, like “you’re ugly/stupid,” or swear at him/her?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

35. Did your child have a brother or sister that hurt him/her very badly, like leaving a mark on his/her body after spanking, or throwing things, in a way that would not be considered ‘typical’ fighting between brothers and sisters?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

36. Did people in your family or community tell your child stories about bad things that happened to your family or community members that were upsetting, scary, or difficult to learn/hear about?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

37. Was your child ever verbally or physically attacked based on his/her ethnicity, gender, or religion?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

38. Did another person close to your child's age that went to his/her school or lived in his/her neighborhood ever punch, kick, damage your child's property, beat up, or hurt your child physically in some way?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

39. Has someone at school spread rumors or gossip about your child, ignored him/her on purpose, or tried to make his/her friends turn against him/her?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

40. Has someone at school called your child names, yelled or sworn at your child, or made fun of or teased your child?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

41. Did another person close to your child's age ever harass her/him on the internet or another form of technology? For example, has anyone ever broken into her/his email or IM program to steal information, pretend to be her/him, or deliberately sent her/him a virus?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

42. Did another person close to your child's age ever make threats to your child by email or cell phone, spread gossip about your child over the internet, threaten her/him online, or forward/post confidential information about your child?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

43. As part of an initiation process into a group, like a football team, social club, or dance team, was your child ever forced to do something humiliating, degrading, or potentially physically harmful in order to be accepted into the group?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

44. Did someone ever take pictures or movies of your child while he/she were undressed or doing sexual things or show your child pictures or movies of other people that were undressed or doing sexual things?

No Yes

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5
Not at all Very

45. Did your child ever experience any other extraordinarily stressful situation or event?

No Yes

If yes, please tell what happened?

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5

Not at all

Very

46. Did anything else happen to your child that was really hard that you did not talk about in the previous questions?

No Yes

If yes, please tell what happened?

If yes, how many times has this happened?

1 time-----2 times-----3-5 times-----6-10 times-----more than 10 times

If yes, how upsetting was this for your child?

0 1 2 3 4 5

Not at all

Very

Appendix C

Developmental Trauma Disorder Questionnaire, Self-Report (DTDQ)

If any of the bad things mentioned above happened to you, please answer these questions.

1. When you remember the bad things, do these things happen? (You can mark as many as you want).

- It is hard to control my emotions.
- I have stomachaches, headaches, or am sick a lot.
- I pretend the bad thing is happening again when I am playing.
- I hurt myself in some way, like cutting, scratching, poking, or pulling out my hair.
- I feel like the bad thing is happening again, I am confused, or feel like I am watching myself from far away.
- I don't want to be away from my parent or caregiver, I misbehave, I don't trust others, or I try to be perfect.

2. Since this happened, do you... (Mark as many as you want):

- Hate yourself, blame yourself, or feel guilty for what happened?
- Not trust people who are supposed to care for you?
- Think that what happened to you will happen again?
- Think that you would not be protected anymore?

3. Do you struggle... (Mark as many as you want):

- At home with your family?
- At school with grades or behavior?
- With your friends?
- With the law?
- With your job?

Developmental Trauma Disorder Questionnaire, Caregiver Report (DTDQ-C)

If any of the bad things mentioned above happened to your child, please answer these questions.

1. When your child is reminded of what happened to him/her, did he/she have trouble with any of the following? (Check all that apply):

- Controlling emotions (sadness, anger, anxiety)?
- Having physical problems such as stomachaches, headaches, trouble with movement, frequent illness?
- Acting out what he/she went through when playing pretend?
- Hurting him/herself in some way such as cutting, scratching, poking, pulling out own hair?
- Feeling like he/she is reliving what happened, confusion, or feeling detached?
- Acting clingy with you or another caregiver/adult, misbehaving, trouble trusting others, or trying to be the 'perfect' child?

2. Since this has happened to you, did your child... (Check all that apply):

- Feel hate or disgust towards him/herself, blame him/herself, or feel guilty for what happened?
- Lose trust in people who were supposed to care for him/her?
- Expect that what happened to him/her would happen again?
- Think that he/she would not be protected in the future because of what happened?

3. Did these experiences cause difficulty for your child in any of the following areas? (Check all that apply):

- At home with family?
- At school with grades, behavior?
- With friends?
- With the law?
- With his/her job?

Appendix D (SDQ; Goodman, 1997)

Strengths and Difficulties Questionnaire

S 11-17

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of how things have been for you over the last six months.

Your name _____

Male/Female _____

Date of birth: _____

	Not True	Somewhat True	Certainly True
I try to be nice to other people. I care about their feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am restless, I cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get a lot of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually share with others, for example CD's, games, food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get very angry and often lose my temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would rather be alone than with people of my age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I usually do as I am told	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I worry a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have one good friend or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I fight a lot. I can make other people do what I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other people my age generally like me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am easily distracted, I find it difficult to concentrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am nervous in new situations. I easily lose confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am often accused of lying or cheating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other children or young people pick on me or bully me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often offer to help others (parents, teachers, children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think before I do things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I take things that are not mine from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I get along better with adults than with people my own age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have many fears, I am easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I finish the work I'm doing. My attention is good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Your Signature _____

Today's Date _____

Thank you very much for your help

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Strengths and Difficulties Questionnaire

P or T ¹¹⁻¹⁷

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of this young person's behavior over the last six months or this school year.

Young person's name: _____

Male/Female

Date of birth: _____

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Restless, overactive, cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often complains of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shares readily with other youth, for example books, games, food	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often loses temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Would rather be alone than with other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally well behaved, usually does what adults request	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many worries or often seems worried	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has at least one good friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often fights with other youth or bullies them	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often unhappy, depressed or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Generally liked by other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easily distracted, concentration wanders	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous in new situations, easily loses confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kind to younger children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often lies or cheats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Picked on or bullied by other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Often offers to help others (parents, teachers, children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thinks things out before acting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Steals from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gets along better with adults than with other youth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Many fears, easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Good attention span, sees work through to the end	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Signature: _____

Date: _____

Parent / Teacher / Other (Please specify): _____

Thank you very much for your help

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Appendix E

Child Demographic Form

Today's Date: _____

Your Age: _____

Your Gender (circle one): **Girl** **Boy**

Your Grade: _____

Who do you live with? _____

Parent Demographic Form

1. Your age (in years)? _____
2. What is your sex? Male Female Prefer not to answer
3. What is your race/ethnicity?
 American Indian Alaskan Native Black Asian/Asian American
 Hawaiian/Pacific Islander) Asian/Asian American Non-Hispanic White
 Hispanic/Latino Other
4. What is your sexual orientation? _____
5. What is your religious affiliation (if any)? _____
6. What is your current relationship status?
 Single (not involved in a steady relationship) Never Married Separated
 Married Engaged to be married Steady Dating Relationship (but not married)
 Divorced
7. (If not single) Living with romantic partner? Yes No
8. (If not single) Relationship Length (years, months): _____
9. Are you the biological parent of the child who this questionnaire focuses on?
 Yes No

If yes, are you the child's Mother or Father?

If no, what is your relationship to the child? _____
10. Please list all diagnoses your child has been given:

11. Please list all medications your child is currently taking:

12. How long has your child been receiving mental health services? _____

13. Employment Status

You:

- Unemployed
- Part Time (20 hours a week or less)
- Full Time (20+ hours a week)

Romantic Partner/Spouse:

- Unemployed
- Part Time (20 hours a week or less)
- Full Time (20+ hours a week)

14. Household income per year

- | | |
|----------------------------------------------|-----------------------------------------------|
| <input type="checkbox"/> Less than \$20,000 | <input type="checkbox"/> \$60,000 - \$80,000 |
| <input type="checkbox"/> \$20,000 - \$40,000 | <input type="checkbox"/> \$80,000 - \$100,000 |
| <input type="checkbox"/> \$40,000 - \$60,000 | <input type="checkbox"/> More than \$100,000 |

15. How many people live in your house? _____

16. Education

You:

- Some high school
- High school degree / GED
- Some college
- Associate's degree
- 4 year degree
- Advanced degree
- Don't know

Romantic Partner/Spouse:

- Some high school
- High school degree / GED
- Some college
- Associate's degree
- 4 year degree
- Advanced degree
- Don't know

Appendix F

Clinician Observation Form_Child

1. Client ID # _____
2. 1st or 2nd administration: _____
3. Date of administration: _____
4. About how long did it take your child client to complete the Stressful Events Questionnaire and the DTDQ? _____
5. Were there any questions that the child had a difficult time understanding? Y or N
6. If yes, what questions were difficult for the child? _____
7. Do you have any other comments for the researcher? _____

Clinician Observation Form_Caregiver

8. Client ID # _____
9. 1st or 2nd administration: _____
10. Date of administration: _____
11. About how long did it take the parent of your child client to complete the Stressful Events Questionnaire and the DTDQ? _____
12. Were there any questions that the parent had a difficult time understanding? Y or N
13. If yes, what questions were difficult for the parent? _____
14. Do you have any other comments for the researcher? _____

Appendix G

Want to be a part of RESEARCH?

Have a child ages 8-17?

I am conducting a study to learn more about the difficult events that happen to children and the common emotional and behavioral reactions to these events. The research study asks that you and your child complete a packet of questionnaires on two separate occasions, about one to two weeks apart. Participation will require two 15 to 30 minute appointments. Parents will receive a \$5 Safeway Card for participation in the first assessment and a \$5 Safeway Card for participation in the second assessment. Your child will receive a gift bag after each assessment.

If interested in participating, please **CONTACT:**

Molly McDonald

Email: molly.mcdonald@umontana.edu

Phone: 847-702-0028



The University of Montana IRB
Expiration Date 10-17-2014
Date Approved 2-19-2014
Chair/Adm <i>Paul A. Baker</i>