

University of Montana

ScholarWorks at University of Montana

Graduate Student Theses, Dissertations, &
Professional Papers

Graduate School

2012

Measuring Trauma: A Pilot Application for Children and Adolescents

Molly Kathleen McDonald
The University of Montana

Follow this and additional works at: <https://scholarworks.umt.edu/etd>

Let us know how access to this document benefits you.

Recommended Citation

McDonald, Molly Kathleen, "Measuring Trauma: A Pilot Application for Children and Adolescents" (2012).
Graduate Student Theses, Dissertations, & Professional Papers. 658.
<https://scholarworks.umt.edu/etd/658>

This Professional Paper is brought to you for free and open access by the Graduate School at ScholarWorks at University of Montana. It has been accepted for inclusion in Graduate Student Theses, Dissertations, & Professional Papers by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.

MEASURING TRAUMA: A PILOT APPLICATION FOR CHILDREN AND
ADOLESCENTS

By

MOLLY KATHLEEN MCDONALD

B.A., DePaul University, Chicago, IL, 2009

Professional Paper

presented in partial fulfillment of the requirements
for the degree of

Master of Arts
in Clinical Psychology

The University of Montana
Missoula, MT

May 2012

Approved by:

Sandy Ross, Associate Dean of The Graduate School
Graduate School

Cameo Borntrager, Chair
Psychology Department

Chris Fiore, Co-Chair
Psychology Department

James Caringi, Co-Chair
Psychology Department

Abstract Title

Chairperson: Cameo Borntrager, Ph.D.

Co-Chairperson: Committee Member Name (remove this line if not applicable)

The current definition of a ‘traumatic event’ in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition—Text Revision (DSM—IV TR; APA, 2000) may be too narrow to describe the myriad of difficult experiences that many youth undergo. Furthermore, youth may develop a distinct pattern of symptoms in relation to complex trauma, that is, when multiple stressful experiences occur or when an experience occurs chronically. It is argued that these children are likely to develop the proposed “developmental trauma disorder” (DTD; van der Kolk, 2005). The present study examined a new measure of childhood trauma exposure through a two-fold process. First, items were developed that assess for exposure to potentially traumatic experiences (PTEs) that may not typically be considered according to the diagnostic rubric of the DSM-IV TR. Two item formats were used in order to explore potential differences in reporting: closed-ended and open-ended questions. Second, three experimental questions describing symptom clusters defined by van der Kolk (2005) were administered. Participants were 186 eighteen and nineteen year olds who were asked to report retrospectively on their difficult childhood experiences. They were asked to complete an established measure of trauma exposure and half of the sample was asked to complete the PTE questionnaire with the closed-ended item format, while the other half was asked to complete the open-ended items. 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. The results were inconsistent with the first hypothesis, in that participants who completed the PTE questionnaire with closed-ended items were more likely to report stressful experiences than participants who completed the closed-ended questionnaire. However, the results supported the second hypothesis in that participants who reported multiple or chronic events were more likely to endorse symptoms associated with DTD. This study has implications for the diagnosis and treatment of trauma experiences in youth.

Introduction

With the advent of the fifth revision of the Diagnostic and Statistical Manual of Mental Disorders in the not too distant future, the diagnostic criteria for posttraumatic stress disorder (PTSD) has been under specific inquiry (American Psychiatric Association [APA], 2000; van der Kolk, 2005). Potential differences in the type of trauma exposure between youth and adults (criterion A1) have been described in the literature (APA, 2000; Joseph, 2000; van der Kolk, 2005). Specifically, the risk for exposure and resulting posttraumatic stress may be higher in children and adolescents than in adults (Carrion, Weems, Ray, & Reiss, 2002).

The Problem with Criterion A1

The diagnosis for PTSD in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition—Text Revision (DSM-IV TR; APA, 2000) has 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 problematic. In the *Diagnostic and Statistical Manual of Mental Disorders, Third Edition (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 most current definition of a traumatic event in criterion A1 is “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). The current definition of a

traumatic event 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 A1 (Gold et al., 2005; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, & Marks, 1998; Taylor & Weems, 2009).

In relation, the DSM-IV includes some developmental considerations for the symptom criteria of the PTSD diagnosis, but not for the traumatic event criterion. For example, the role of interpersonal aggression that does not necessarily involve life threat or threat to physical integrity needs to be examined in relation to the development of posttraumatic stress in children and adolescents. For instance, a commonly experienced 'low level' stressor that occurs in childhood 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 (Dukes, Stein, & Zane, 2009). Van Hooff et al. (2009) conducted 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 as a result of 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 were identified bullying victims. All of the identified victims scored higher on the Peer-Victimisation Scale and the Birlson depression questionnaire. These students also scored lower on measures of social acceptance, behavioral conduct, and self-esteem. Additionally, one study found that 43% of the 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.

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 (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).

In addition to understanding the influence of less severe personal stressors in the development of posttraumatic stress symptoms in youth, children and adolescents are also more likely than other populations to be affected by complex trauma, due to their dependence on caregivers (van der Kolk, 2005). 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). 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).

In addition, 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. The experience of multiple traumas may increase adverse effects. For example, Felitti and colleagues (1998) conducted an assessment of adverse childhood experiences (ACE) among 9,508 participant patients of Kaiser Permanente. 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) and others that would not be recognized according to the DSM (e.g., being raised by an alcoholic parent, changing schools). 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 adverse childhood experiences increased (Felitti, et al., 1998).

In another study assessing for the effects of cumulative childhood trauma, 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 also 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 chronic and multiple trauma experiences be considered in the reformulation of a PTSD diagnosis.

The Difficulties with PTSD Symptom Criteria within the DSM-IV TR

Most children who do experience complex trauma, such as prolonged abuse, do not receive a diagnosis of PTSD; they are most commonly diagnosed with conduct disorder, oppositional defiant disorder, or separation anxiety (Cook et al., 2005; Spinazzola et al., 2005; van der Kolk, 2005). Further, affected children often demonstrate difficulty in self-regulating across several domains (e.g., affective, behavioral, physiological, cognitive, relational), 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. They also may experience negative self-attributions and generally present with a variety of other psychiatric disorders (Cook et al., 2005; 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.

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 dependent on an impaired caregiver (i.e. mental illness or substance abuse), witnessed domestic violence, and experienced sexual maltreatment or assault. Physical, medical, or educational neglect were reported in about 30% of children treated. Further, 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, activity, or avoidance, attachment, or dissociation.

Developmental Trauma Disorder

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) suggested a new diagnosis for children who are 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 A), 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. It is suggested that a more accurate diagnosis will aid providers in better conceptualizing what youth affected by complex trauma experience. Additionally, a more comprehensive and accurate diagnosis can inform the development of therapeutic techniques and protocols better suited for affected youth (van der Kolk, 2005). More research on DTD is required to examine the validity of the diagnosis and establish threshold criteria.

The Problem with Measuring Trauma Exposure in Youth

Amaya-Jackson, Socolar, Hunter, Runyan, and Colindres (2000) reviewed the various methods for assessing children’s exposure to trauma and noted that differences 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. Amaya-Jackson and colleagues 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 the event, and severity of the event. Most of the 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, the authors made several recommendations including the 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.

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, further research is needed to examine the role of open-ended vs. closed-ended questionnaire methods on reporting styles.

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 chronicity of traumatic events, it is important that a self-report measure be available to assess for chronicity as well. Self-report measures are a key component of multi-method assessment, they provide a less time-consuming and expensive way

to assess for trauma, and some individuals may feel more comfortable responding truthfully 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-IV TR, but typically require the informant to choose the most distressing event, and relate associated symptoms to only that event (Hawkins & Radcliffe, 2006). 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. Further, given that the effects of experiencing multiple stressors are likely to be additive, it seems ill considered not to include all distressing events experienced (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).

Trauma Exposure in Ethnic Minorities

Research examining PTSD among ethnic minority youth suggests that these youth may be at greater risk for experiencing trauma and resulting psychological sequelae (de Arrellano & Danielson, 2008). A recent study by Hatcher, Maschi, Morgen, and Toldson (2009) examined the difference between trauma exposure and outcomes in Caucasian and African-American 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, African-American maltreated youth had significantly higher rates of externalizing and internalizing symptoms.

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. The authors 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, 2008).

Additionally, the normative samples used to validate commonly used trauma assessment measures typically have not been representative of ethnic minority populations (Hawkins & Radcliffe, 2006). This is problematic as there may be differences across ethnic groups in the types of trauma experienced, symptom expression, and interpretation of trauma measure items/questions (de Arrellano & Danielson, 2008; Hawkins & Radcliffe, 2006).

Research has indicated that Native Americans in particular 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 Native American population as compared to the results of the National Comorbidity Study (NCS), of which American Indians 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 Native American 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, Native Americans may be at higher risk for developing PTSD, and engage in less frequent help-seeking behavior. Pole, Gone, and Kulkarni (2008) report that Native Americans may be more likely to be exposed to violence than other ethnoracial minority groups. 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).

Given past research, it is important that the impact of complex trauma and exposure to multiple traumas be assessed in children and adolescents from diverse ethnic backgrounds. 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. Finally, youth exposed to multiple or complex stressors may present with posttraumatic stress in different ways than what is typically assessed.

Hypotheses

The current study attempts to explore the possibility that there may be childhood experiences that fall outside of the traditional rubric for criterion A1 traumatic events that may still be experienced as ‘traumatic’ by children and adolescents in terms of their emotional and

behavioral reactions. Thus, this study first examined the frequencies of reported potentially traumatic experiences (PTEs), above and beyond typically considered criterion A1 events.

In order to assess for PTEs in a self-report questionnaire, the item format most conducive to reporting these circumstances was explored, as measures vary within the current literature. Past research suggests that an open-ended format may result in higher reporting rates for less severe stressors, which is in contrast to the literature on criterion A1 events (Amaya-Jackson et al., 2000). Thus, it was hypothesized that more PTEs will be reported on a measure using open-ended questions than on a questionnaire with closed-ended questions.

The current study also examined the hypothesis that multiple and/or chronic trauma experiences tend to be related to a distinct set of symptom criteria, known as developmental trauma disorder (DTD) (van der Kolk, 2005). 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 individuals who endorse multiple or chronic trauma experiences, regardless of item format, will be more likely to endorse the experimental symptom questions describing DTD.

Method

Participants

The participants only included 18- and 19-year-olds given that this research is a pilot study in developing a new measure to assess exposure to childhood stressors and it will be important to target individuals cognitively capable of retrospectively reporting on their childhood experiences, while reducing the temporal distance from them to enhance accuracy. Participants consisted of 186 volunteers from an introduction to psychology participant pool at a medium-sized northwestern university. Of the 186 participants, 137 were female (73.3%) and 49 were

male (26.2%). Exactly half of the participants were 18, and 91.4% of the sample self-identified as white, non-Hispanic or Latino. Other demographic information is included in Table 1.

Participants received course credit for their involvement in the study.

Measures

In order to develop items for the assessment battery in the current study, an item analysis was performed on a number of existing trauma history questionnaires. First, the literature on assessment of childhood trauma experiences was reviewed and seven trauma exposure questionnaires were analyzed by either accessing the measures via full-text or by contacting the authors. Next, MM and CB, who have expertise in childhood trauma assessment, generated categories of trauma experiences based on the existing questionnaires. MM and CB independently assigned a trauma type to each question in all questionnaires, generating independent lists of traditional trauma types. MM and CB then met together to compile the lists, deductively creating a complete list of traditional trauma types. The two questionnaires covering the most criterion A1 events were chosen in order to control for exposure to these events in the current study. The University of California Los Angeles Posttraumatic Stress Disorder Reaction Index (UPRI; Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998) covered the majority of criterion A1 traumatic events and those not covered by the UPRI were covered by the Trauma History Questionnaire (THQ; Green, 1996). These two measures were chosen in order to develop the most comprehensive assessment of typically considered criterion A1 events. Twenty-five traumatic event categories were comprised by the two measures. This categorization strategy was also utilized to determine which categories were to be included in the PTE questionnaire, described later.

UCLA PTSD Reaction Index for DSM-IV—Child Version, Revision 1, Part 1 (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998). 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; although, only the first portion assessing exposure will be administered in the current study. 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). All of the questions from the UCLA PTSD-RI were administered in order to assess for criterion A1 stressors as defined by the current DSM. The response format has been modified such that the Trauma History Questionnaire format was utilized and added to the URPI (THQ; Green, 1996).

Trauma History Questionnaire (THQ; Green, 1996). The THQ is a 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 number of times the event occurred 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 provide more details. For the present study, the additional questions about the relationship of the perpetrator were eliminated. Test-retest reliability 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). Only items from the THQ not all ready targeting specific criterion A1 events covered by the UPRI were included in the current study. Appendix B includes the combination of items from the UPRI and THQ.

Demographic Form. A demographic form was included to collect relevant demographic information. Participants were asked their age, gender, socioeconomic status, sexual orientation, religious affiliation, and ethnicity. The Demographic Form is shown in Appendix A.

Potentially Traumatic Experiences Questionnaire (PTEQ; unpublished measure). Two versions of the PTEQ, developed for the current study, were used. Each version included items that assessed for specific categories of PTEs (e.g., peer-victimization, divorce, etc.) that may have occurred at some point during childhood; however, one version of the questionnaire (Potentially Traumatic Experiences Questionnaire—Closed-ended; PTEQ-C) included only closed-ended, behaviorally specific questions. For example, for an item assessing divorce, the closed-ended question may be, “Before you turned 18 years old, were your parents ever divorced or separated?” The answer format for the PTEQ-C mirrored that of the UPRI-THQ Survey, described previously. The development of PTE categories for the closed-ended version of the questionnaire is described in the Procedure section, below.

In contrast, the open-ended version of the PTEQ (Potentially Traumatic Experiences Questionnaire—Open-ended; PTEQ-O) included five open-ended questions about experiences in

which participants 1) may have felt their life was threatened, 2) may have been, or felt they or someone close to them may be, seriously injured, 3) may have experienced something extraordinarily stressful, 4) may have happened to their family or community before they were born, or 5) any other experience that they felt was very difficult. The questions were developed using open-ended question formats from other questionnaires. Further, a historical trauma question was added to address the experiences of the Native American population. Participants were able to list as many experiences as they wish for item five.

Developmental Trauma Disorder Questionnaire (DTDQ). In order to assess for DTD symptom criteria (van der Kolk, 2005) and their relation to trauma exposure, MM and CB independently created questionnaire items reflecting the symptom clusters of DTD. These questions were then evaluated via a panel of experts in trauma-related disorders (three, tenured university professors), as well as five graduate students working in a psychology research lab focused on trauma. The questions were vetted, and the feedback included editing, readability, and confirmatory analysis, with the panel matching each question to the relevant symptom cluster. Revisions based on the panel-review were made and the revised questions that were used in the current study can be found in Appendix E. Three experimental questions were developed and were included on each version of the PTEQ (PTEQ-C, PTEQ-O). The questions assess 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 in the aforementioned questionnaires. Of note, the DTDQ does not require that participants identify their ‘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 will provide the first

assessment of these symptom criteria in individuals; thus, questions were presented in a checklist-format so that participants can indicate more than one response per item. A higher frequency of item endorsement indicated more severity in symptomology.

Procedure

Item development for the PTEQ-C. In order to develop items that comprehensively assess PTEs for the PTEQ-C, the investigator team followed a similar procedure as in the development of the DTDQ items. 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. MM and CB inductively created these lists of categories, utilizing relevant potentially traumatic events research to inform 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 content domain. Next, they 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-C administered to participants for the current study. The response set mirrored that of the THQ, in which participants identified whether or not the experience occurred, how many times the experience occurred, and at what ages the experience began.

Questionnaire administration. Participants self-selected into the study by signing up on a sign-up sheet which specifically stated that the study would ask them to report on very stressful experiences, including sexual and physical abuse. Participants completed the group informed consent process for the study determined by sign-up sheets; although, participants complete the questionnaires in separate rooms to enhance privacy. First, participants were given an informed

consent information sheet, and the researcher read aloud information from the Proctor Script (see Appendix F) to the group. They were asked to carefully read through the material, and if they agree to participate, to sign their name. Participants were notified that they would be asked about specific experiences they may have had in their childhood prior to the age of 18 and that their honesty is appreciated; however, they do not have to answer any questions that they do not wish to answer. All participants were also asked to complete the Demographic Form, UPRI-THQ Survey, and DTDQ. Half of the participants were asked to complete the PTEQ-C, which was counterbalanced with the UPRI-THQ Survey to control for priming effects. The other half of the participants will be asked to complete the PTEQ-O.

After completion of the questionnaires, participants were individually debriefed about the purpose of the study and were provided with contact information if they should have any questions. Additionally, all participants were given a list of referral agencies, including the University's counseling center, for coping with any distress resulting from participation in the study.

Results

Item-level analysis

In order to establish a frequency count for unique PTEs reported on the PTEQ-O, participants' responses were coded according to whether or not the response qualified as a PTE in that it did not meet criteria A1 for a traumatic event. All responses that met criteria for a criterion A1 event (would be endorsed on the UPRI-THQ) were coded separately. Thus, only responses identified by coders as potentially traumatic experiences were included in analyses. Next, included responses were coded according to the categories established for the PTEQ-C, and additional categories were identified. Newly identified categories included *a significant*

other being injured, a loved one in the military, a romantic breakup, financial debt, being adopted, having an estranged family member, church excommunication, fear of a potential crime-related trauma (i.e, fear that one will be robbed, but is not actually robbed), fear of injury in other, living in an unsafe community, and death of a pet. Lastly, the reported number of times the event occurred was recoded in order to account for items that were defined as traditionally traumatic events and thus not included in analyses. The results indicated that out of 25 possible categories of potentially traumatic events, the participants endorsed events in 23 of these categories. Further, on the PTEQ-O, participants endorsed 12 of the 25 categories identified on the PTEQ-C. Additionally, responses to the PTEQ-O identified 11 new categories not previously identified. Lastly, the URPI identified 25 categories of traditionally traumatic events. The results indicated that participants endorsed events in 24 of these categories. The results of the frequency count indicated that after recoding, participants reported a total of 120 separate instances of PTEs across 12 categories of stressors on the PTEQ-O. Likewise, the results of the frequency count on the PTEQ-C revealed that participants reported a total of 559 separate instances of PTEs across 23 categories of stressors on the closed-ended version of the questionnaire. Similarly, participants reported a total of 592 instances of separate, traditionally traumatic experiences on the URPI-THQ.

Hypothesis 1

In order to assess the first hypothesis, the means and standard deviations of participants' number of reported instances of trauma exposure were calculated for both the UPRI-THQ Survey and the PTEQ-C and PTEQ-O. Next, given that there were no differences according to demographic factors between groups who completed the PTEQ-C and PTEQ-O, participants who were administered the PTEQ-C were compared with the participants who were administered the

PTEQ-O via independent samples *t*-test. It was hypothesized that participants would report significantly more PTEs on the open-ended version of the PTEQ than on the closed-ended version. On the contrary, the results indicated that on average, participants who were given the PTEQ-C reported a greater number of potentially traumatic experiences ($M = 6.08, SE = 0.16$) than participants who were given the PTEQ-O ($M = 1.28, SE = 0.46$). This difference was significant $t(184) = -9.90, p < .001$. Further, these results represent a large effect size, $r = 0.59$.

Hypothesis 2

Lastly, it was hypothesized that participants who endorsed multiple/chronic trauma experiences would be more likely than participants who endorsed single trauma experiences to endorse the DTD experimental symptom questions. A stepwise regression was used to explore if multiple or chronic trauma experiences predict endorsement of the DTD experimental symptom questions. First, items on the PTEQ-C, PTEQ-O, and UPRI were coded for ‘chronicity,’ using the “number of times” response, which indicated how many times a person experienced a particular event, on the PTEQ-C and UPRI. The recoded “number of times” variable was used for the PTEQ-O. Participants were scored for chronicity, depending upon how many experiences each participant reported and the number of times participants reported experiencing the event, such that the chronicity score was a continuous variable. Univariate analysis of variance (ANOVA) was used first in order to determine differences between demographic variables and the other variables of interest (chronicity, DTD experimental symptom question mean). The variables identified as having significant differences between groups on chronicity and DTDQ scores were ethnicity, gender, and sexual orientation. Thus, the URPI-THQ Total Score was entered as the first step on the regression, to control for exposure to traditional traumatic experiences. Gender, ethnicity, and sexual orientation were entered into the second

step of the regression analysis. Next, the ‘chronicity’ score was entered on the third step. The results of the regression indicated that the UPRI-THQ Total Score accounted for a significant amount of the variance observed in the DTDQ total score, as predicted. Further, the inclusion of gender into the model resulted in a statistically significant change in R-square (R-square change = .03, $p < .05$). The other demographic variables, sexual orientation and ethnicity, were not included in the final model, as they did not provide any additional prediction to the model. Finally, the ‘chronicity’ score did significantly predict DTDQ total scores independent of the other predictors in the model. That is, the Beta-weight was statistically significant when keeping all other variables constant ($\beta = .22$, $p < .001$). In sum, the model that accounted for the most variability in DTDQ score included URPI-THQ score, gender, and chronicity score and accounted for nearly 43% of the variability observed.

Discussion

The current study included the development of a new assessment measure for trauma exposure that takes into account PTEs in childhood not typically considered in the A1 criterion of a PTSD diagnosis in the current DSM. First, the findings of this study supported the hypothesis that there are a variety of events considered traumatic in childhood that are not traditionally considered ‘traumatic’ according to the DSM definition of a ‘traumatic event.’ Additionally, the results of this study have influenced the current state of understanding of trauma exposure assessment, demonstrating that question format should be considered in the development of a trauma exposure measure for youth. Lastly, the findings of this study provided the first empirical evidence for the support of the proposed DTD symptom criteria as proposed by van der Kolk (2005). These results contribute to the understanding of complex trauma and

the associated psychological sequelae (Cook et al., 2005; Spinazzola et al., 2005; van der Kolk, 2005).

This study has important implications for theory, assessment, diagnosis, and future research. Given that a total of 120 unique instances of PTEs were reported on the PTEQ-O and a total of 559 unique instances of PTEs were reported on the PTEQ-C, it is argued that individuals perceive a variety of distressing life events as traumatic in their youth. This provides further support for a developmentally appropriate revision of criteria A1. Specifically, DSM-V (or future revisions of the manual) should expand criteria A1 to include many adverse childhood experiences that have been found to be associated with psychological distress and impairment (Felitti et al., 1998). For example, bullying experiences, parental divorce, living with someone with a mental illness, and illness in a significant other were widely reported as traumatic experiences in childhood. Further, the sheer number of experiences reported supports the argument that standard trauma assessment should allow for reporting on multiple incidents, rather than the ‘most difficult’ only, for reporting on subsequent symptoms. Indeed, the compilation of traumatic experiences could result in unique symptoms beyond that and/or separate from symptoms of PTSD.

The comparison of open-ended to closed-ended questions provided additional information about trauma exposure assessment. Although it was hypothesized that the open-ended questionnaire would result in higher reporting rates, the results indicated that the closed-ended questionnaire yielded higher reporting rates of unique PTEs to a significant degree. This may be due to the fact that it is simply quicker and easier to circle “yes” than to write out a response. Further, this sample was a sample of convenience and may not have been especially motivated to put much effort into their responses, as they would have received credits regardless

of how much time they devoted to the survey. The lower yield of reporting on the PTEQ-O may also be explained by the tendency to utilize avoidance as a coping mechanism for difficult experiences. Additionally, all completers of the PTEQ-O were presented with the URPI-THQ first, which may have influenced how participants evaluated the description “very stressful.” However, the reporting of several events on the open-ended version that were not included on the closed-ended version provide support for the inclusion of at least one open-ended or ‘catch all’ question to ensure that less commonly reported experiences are not being neglected.

Finally, this study provided the first empirical support of a relationship between complex or multiple traumas and the experience of unique psychological sequelae. The empirical support for the proposed DTD symptoms found in the current study indicated that this disorder should be considered for further inquiry as well as in future revisions of trauma-related disorders in the DSM. By incorporating a diagnosis such as DTD, children who experience multiple or chronic stressful and traumatic experiences would be appropriately classified with a diagnosis that recognized their trauma history, rather than the hodgepodge of diagnoses that address the multitude of symptoms often displayed by children affected by complex or multiple traumas (Van der Kolk, 2005).

Limitations

The limitations of this study included the sampling procedure, retrospective reporting, and the use of a previously unvalidated, self-report measure. The sampling procedure was limited in that participants were university students who self-selected into the study and their responses were based on retrospective reports. These students may have chosen to be in this study particularly because it specified that they would be asked about stressful experiences. Therefore, it may be difficult to generalize these findings to the larger population. However,

pilot testing the experimental questionnaires in a college sample is an important step in item development before bringing the questions to a higher-risk, younger population. Additionally, the use of retrospective measures has been criticized in past research in that it has been found that individuals' recall of traumatic events may not be accurate (Rosen, 2004-2005). However, Dube, Williamson, Thompson, Felitti, and Anda (2005) found that the test-retest reliability of the ACE study questionnaire overall was good (Cohen, 1960). The authors used the kappa coefficient to examine test-retest reliability using data from 658 participants who completed the questionnaire on two separate occasions. The kappa coefficient was 0.66 (good) for emotional abuse, 0.55 (good) for physical abuse, and 0.69 (good) for sexual abuse. Additionally, the kappa coefficient was 0.75 (excellent) for exposure to substance abuse, 0.77 (excellent) for exposure to domestic violence, 0.51 (good) for mental illness, 0.46 (good) for incarcerated household member, and 0.86 (excellent) for parental separation or divorce. The kappa coefficient for the overall ACE score was 0.64 (good). The authors concluded that there is good to excellent reliability in adult retrospective reports on childhood abuse. Therefore, the current study likely provides valuable information despite the retrospective nature of the survey. This study is also somewhat limited in that the questions used to assess for PTEs and symptoms associated with DTD were not previously validated. However, these questions were reviewed by an expert panel and are a necessary component of the measure development.

Future Directions

Although this research provides information about young adults' retrospective accounts of what they consider traumatic, it does not provide information regarding what youth consider traumatic during their childhood. Future research should examine the newly developed measure with child populations. The assessment of child populations may improve the validity of reports

of trauma experiences; thus, establishing the measure as a useful, efficient tool with clinical utility. Further, future research should utilize clinical samples of children with complex trauma histories in order to further specify the symptom criteria for DTD. Additionally, it is suggested that future research attempt to utilize an ethnically diverse sample, as this will increase our understanding of the differences amongst ethnic groups in trauma exposure and distress symptoms.

Conclusions

This study involved the development of a trauma exposure assessment including potentially traumatic experiences in childhood (not included in criterion A1 of PTSD), and assessed for the effect of complex or multiple exposures to trauma on developmental trauma disorder symptoms (DTD; van der Kolk, 2005). Participants were 18 and 19 year old undergraduate students at a medium-sized northwestern university who completed the questionnaires for course credit. Results provided empirical support for a broadened A1 criterion and as well as the first empirical examination and support for DTD criteria. Further, the results suggested that standard trauma assessment measures should include opportunities for youth to endorse multiple trauma exposures as well as the inclusion of an open-ended “catch-all” question. The opportunity to report on multiple events may also reduce the need for requiring individuals to report on a ‘worst’ event or memory, as results from the current study suggest that individuals who were exposed to multiple or chronic stressors may experience symptoms that are more comprehensive than those described strictly by PTSD. Future research can expand upon this study by piloting the assessment measures with youth.

References

- Amaya-Jackson, L., Socolar, R.S., Hunter, W., Runyan, D.K., & Colindres, R. (2000). Directly questioning children and adolescents about maltreatment: A review of survey measures used. *Journal of Interpersonal Violence, 15*, 725-759.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington DC: Author.
- American Psychological Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington DC: Author.
- Beals, J., Novins, D.K., Whitesell, N.R., Spicer, P., Mitchell, C.M., & Manson, S.M. (2005). Prevalence of mental health disorders and utilization of mental health services in two American Indian reservation populations: Mental health disparities in a national context. *American Journal of Psychiatry, 162*, 1723-1732.
- Briere, J. (1995). *Trauma Symptom Inventory Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Briere, J., Kaltman, S., & Green, B.L. (2008). Accumulated childhood trauma and symptom complexity. *Journal of Traumatic Stress, 21*, 223-226.
- Callaghan, S., & Joseph, S. (1995). Self-concept and peer victimization among schoolchildren. *Personality and Individual Differences, 18*, 161-163.
- Carrion, V.G, Weems, C.F., Ray, R., & Reiss, A.L. (2002). Toward an empirical definition of pediatric PTSD: The phenomenology of PTSD symptoms in youth. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 166-173.
- Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20*, 549-551.

- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155-159.
- Comer, J.S., & Kendall, P.C. (2007). Terrorism: The psychological impact on youth. *Clinical Psychology: Science and Practice*, *14*(3), 179-212.
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M...van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, *35*(5), 390-398.
- Costello, E.J., Erkanli, A., Fairbank, J.A., & Angold, A. (2002). The prevalence of potentially traumatic events in childhood and adolescence. *Journal of Traumatic Stress*, *15* (2), 99-112.
- de Arrellano, M.A., & Danielson, C.K. (2008). Assessment of trauma history and trauma-related problems in ethnic minority child populations: An INFORMED approach. *Cognitive and Behavioral Practice*, *15*, 53-66.
- Dube, S.R., Williamson, D.F., Thompson, T., Felitti, V.J., & Anda, R.F. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse and Neglect*, *28*, 729-737.
- Dukes, R.L., Stein, J.A., & Zane, J.I. (2009). Effect of relational bullying on attitudes, behavior, and injury among adolescent bullies, victims, and bully-victims. *The Social Science Journal*, *46*, 671-688.
- Dupper, D.R., & Meyer-Adams, N. (2002). Low-level violence: A neglected aspect of school culture. *Urban Education*, *37*, 350-364.
- Felitti, V.J., Anda, R.F., Nordenberg, D., Williamson, D.F., Spitz, A.M, Edwards, V...Marks, J.S. (1998). Relationship of childhood abuse and household

- dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventative Medicine*, 14(4), 245-258.
- Gold, S.D., Marx, B.P., Soler-Baillo, J.M., & Sloan, D.M. (2005). Is life stress more traumatic than traumatic stress? *Anxiety Disorders*, 19, 687-698.
- Gone, J.P. (2009). A community-based treatment for Native American historical trauma: Prospects for evidence-based practice. *Journal of Consulting and Clinical Psychology*, 77(4), 751-762.
- Green, B.L. (1996). Psychometric review of Trauma History Questionnaire (Self-report). In B.H. Stamm & E.M. Varra (Eds.), *Measurement of Stress, Trauma, and Adaptation*. Lutherville, MD: Sidran.
- Green, B.L., Goodman, L.A., Krupnick, J.L., Corcoran, C.B., Petty, R.M., Stockton, P., & Stern, N.M. (2000). Outcomes of single versus multiple trauma exposure in a screening sample. *Journal of Traumatic Stress*, 13(2), 271-286.
- Hatcher, S.S., Maschi, T., Morgen, K., & Toldson, I.A. (2009). Exploring the impact of racial and ethnic differences in the emotional and behavioral responses of maltreated youth: Implications for culturally competent services. *Children and Youth Services Review*, 31, 1042-1048.
- Hawkins, S.S., & Radcliffe, J. (2006). Current measures of PTSD for children and adolescents. *Journal of Pediatric Psychology*, 31(4), 420-430.
- Joseph, S. (2000). Psychometric evaluation of Horowitz's Impact of Event Scale: A review. *Journal of Traumatic Stress*, 13(1), 2000.
- Mynard, H. & Joseph, S. (2000). Development of the Multidimensional Peer-Victimization Scale. *Aggressive Behavior*, 26, 169-178.

- Nader, K. (2008). Understanding and assessing trauma in children and adolescents: Measures, methods, and youth in context. New York, NY: Routledge.
- Pole, N., Gone, J.P., & Kulkarni, M. (2008). Posttraumatic stress disorder among ethnoracial minorities in the United States. *Clinical Psychology: Science and Practice, 15*(1), 35-61.
- Pynoos, R., Rodriguez, N., Steinberg, A., Stuber, M., & Frederick, C. (1998). *UCLA PTSD INDEX for DSM IV (Revision 1)*. Los Angeles: UCLA Trauma Psychiatry Program.
- Rosen, G. M. (2004-2005). Traumatic events, criterion creep, and the creation of pretraumatic stress disorder. *The Scientific Review of Mental Health Practice, 3*, 39-42.
- Saylor, C.F., Macias, M., Wohlfeiler, M., Morgan, L., & Awkerman, N.G. (2009). Exposure to potentially traumatic life events in children with special needs. *Child Psychiatry and Human Development, 40*, 451-465.
- Spinazzola, J., Ford, J.D., Zucker, M., van der Kolk, B.A., Silva, S., Smith, S.F., & Blaustein, M. (2005). Survey evaluates: Complex trauma exposure, outcome and intervention among children and adolescents. *Psychiatric Annals, 35*(5), 433-439.
- Steinberg, A.M., Brymer, M.J., Decker, K.B., & Pynoos, R.S. (2004). The University of California at Los Angeles Post-traumatic Stress Disorder Reaction Index. *Current Psychiatry Reports, 6*, 96-100.
- Taylor, L.K., & Weems, C.F. (2009). What do youth report as a traumatic event? Toward a developmentally informed classification of traumatic stressors. *Psychological Trauma: Theory, Research, Practice, and Policy, 1*(2), 91-106.
- van der Kolk, B.A. (2005). Developmental trauma disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals, 35*(5), 401-408.
- van Hooff, M., McFarlane, A.C., Baur, J., Abraham, M., & Barnes, D.J. (2009).

The stressor Criterion A-1 and PTSD: A matter of opinion? *Journal of Anxiety Disorders*,
23, 77-86.

Appendix A

Demographic Questionnaire

Demographic Form

1. What is your current age? _____
2. How would you define your gender?
 - Female
 - Male
 - Transgender
 - Gender neutral
 - Intersex
 - Other: Please describe _____
3. What is your racial group? *(You may check more than one)*
 - American Indian/Alaska Native
 - Asian
 - Native Hawaiian or Other Pacific Islander
 - Black or African American
 - Hispanic or Latino
 - White, non-Hispanic or Latino
 - Other: _____
4. How do you define your sexual orientation?
 - Heterosexual
 - Gay / Lesbian
 - Bisexual
 - Questioning
5. What is your household income from all sources—work, social security,...(SEE OPTION TWO IF YOUR ONLY INCOME IS STUDENT LOANS)?
 - I / we receive \$ _____ every _____ (week, two weeks, month, or year)
 - Check HERE if your only source of income is student/educational loans
 - Don't know
6. How many people are supported by your household income? _____
7. Describe your religious affiliation, if any: _____

Appendix B

URPI-THQ Survey

UPRI-THQ Survey

The following is a series of questions about serious or traumatic life events. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about the occurrence of such events, and reactions to them, will help us to develop programs for prevention, education, and other services.

For each event, please indicate (circle) whether it happened BEFORE YOU WERE 18, and if it did, the number of times and your approximate age when it started (give your best guess if you are not sure).

				<u>If Yes</u>			
				# of	Approx.		
				Times	Age(s)		
1.	Have you been in a big earthquake that badly damaged the building you were in?	No	Yes	_____	_____		
				<u>If yes</u> , how upsetting was this for you?			
		0	1	2	3	4	5
		Not at all				Extremely	
2.	Have you been in another kind of disaster, like a fire (accidental), tornado, flood, or hurricane?	No	Yes	_____	_____		
				<u>If yes</u> , how upsetting was this for you?			
		0	1	2	3	4	5
		Not at all				Extremely	
3.	Have you ever been in a bad accident, like a very serious car accident?	No	Yes	_____	_____		
				<u>If yes</u> , how upsetting was this for you?			
		0	1	2	3	4	5
		Not at all				Extremely	

4. Have you ever been in a place where a war was going on around you? No Yes _____

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

5. 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 upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

6. 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 upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

7. Have you ever been beaten up, shot at or threatened to be hurt badly in your town? No Yes _____

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

8. Have you ever seen someone in

your town being beaten up, shot at or killed?

No Yes

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

9. Have you ever seen a dead body in your town? (Do not include funerals).

No Yes

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

10. 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 upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

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

No Yes

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

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

No Yes

Not at all

Extremely

17. Have you ever experienced a "man-made" disaster such as a train crash, building collapse, 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 upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

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

No Yes

If yes, how upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

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

No Yes

If yes, how upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

20. Have you ever had a spouse, romantic partner, or child die (not including miscarriage or abortion)?

No Yes

If yes, how upsetting was this for you?

0

1

2

3

4

5

- Not at all Extremely
21. Have you ever had a serious or life-threatening illness? No Yes _____
- If yes, how upsetting was this for you?
- 0 1 2 3 4 5
Not at all Extremely
22. Has anyone ever made you touch their private body parts under force or threat? No Yes _____
- If yes, how upsetting was this for you?
- 0 1 2 3 4 5
Not at all Extremely
23. Other than incidents mentioned in Questions 18 and 19, have there been any other situations in which another person tried to force you to have unwanted sexual contact? No Yes _____
- If yes, how upsetting was this for you?
- 0 1 2 3 4 5
Not at all Extremely
24. Has anyone, including family members or friends, ever attacked you with a gun, knife or some other weapon? No Yes _____
- If yes, how upsetting was this for you?
- 0 1 2 3 4 5
Not at all Extremely
25. Has anyone in your family

ever beaten, "spanked" or
pushed you hard enough to
cause injury?

No Yes

If yes, how upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

Appendix C

Potentially Traumatic Experiences Questionnaire—Closed-ended (PTEQ-C)

PTEQ-C

The following is a series of questions about serious or traumatic life events that sometimes happen to people before they turn 18. These types of events actually occur with some regularity, although we would like to believe they are rare, and they affect how people feel about, react to, and/or think about things subsequently. Knowing about the occurrence of such events, and reactions to them, will help us to develop programs for prevention, education, and other services.

For each event, please indicate (circle) whether it happened BEFORE YOU WERE 18, and if it did, the number of times and your approximate ages when it started (give your best guess if you are not sure). Also, for each event please indicate (circle) how upsetting it was for you based on the scale below each item.

				<u> If Yes </u>	
				# of	Approx.
				Times	Age(s)
1.	Was someone close to you, like a family member or good friend, diagnosed with a serious illness, such as cancer, leukemia, AIDS, multiple sclerosis, etc?	No	Yes	_____	_____
<u>If yes</u> , how upsetting was this for you?					
0	1	2	3	4	5
Not at all					Extremely
2.	Did you move to a different house, a different town, or a different state many times?	No	Yes	_____	_____
<u>If yes</u> , how upsetting was this for you?					
0	1	2	3	4	5
Not at all					Extremely
3.	Did you live with someone who had a mental illness and/or used drugs or alcohol where it caused trouble at home?	No	Yes	_____	_____
<u>If yes</u> , how upsetting was this for you?					

forced to do something humiliating, degrading, or potentially physically harmful in order to be accepted into the group?

No Yes

If yes, how upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

17. Were you ever in a romantic relationship with someone who hurt you physically or emotionally? That is, did a romantic partner ever kick, push, or hit you? Did your partner 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 upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

18. Were you ever verbally or physically attacked based on your ethnicity, sexual orientation, gender, or religion?

No Yes

If yes, how upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

19. 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 upsetting was this for you?

0
Not at all

1

2

3

4

5
Extremely

20. 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 upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

21. Did you ever feel that someone in your family strongly disliked you, or did people in your family say hurtful things to you, like “you’re ugly/stupid,” or swear at you? No Yes _____

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

22. When you were growing up, 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 you would not considered ‘typical’ fighting between brothers and sisters? No Yes _____

If yes, how upsetting was this for you?

0 1 2 3 4 5
Not at all Extremely

23. Did someone older than you ever take pictures or movies of you while you were undressed or doing sexual things or show you pictures or movies of other people that were undressed or doing sexual things? No Yes _____

Appendix D

Potentially Traumatic Experiences Questionnaire—Open-ended (PTEQ-O)

PTEQ-O

		<u>If Yes</u>	
		# of Times	Approx. Age(s)
1.	Were you ever in any situation in which you feared you or someone close to you <u>might</u> be killed, or did someone close to you die or was killed?	No	Yes
	<u>If yes</u> , please tell what happened:	_____	_____

If yes, how upsetting was this for you?

0	1	2	3	4	5
Not at all					Extremely

		<u>If Yes</u>	
		# of Times	Approx. Age(s)
2.	Were you ever in any situation in which you feared you or someone close to you might be or was seriously injured?	No	Yes
	<u>If yes</u> , please tell what happened:	_____	_____

Appendix E

Developmental Trauma Disorder Questionnaire (DTDQ)

If you circled any of the above items or answered yes to any of the above questions, please complete the following questionnaire. If you answered “no” or did not circle any items, you may now turn in your packet.

Developmental Trauma Disorder Questionnaire

1. When you were reminded of what happened to you, did you have trouble with any of the following? (Check all that apply):

- Your mood or controlling your emotions (sadness, anger, anxiety)?
- Physical problems such as stomachaches, headaches, trouble with movement, frequent illness?
- Acting out what you went through when engaged in imaginary play (pretend playing)?
- Hurting yourself in some way such as cutting, scratching, poking, pulling out your hair?
- Feeling like you were reliving what you went through (back in the moment), confusion, feeling detached or like you were watching yourself from a distance?
- Being clingy with your caregiver/other adult, misbehaving, trouble trusting others, trying to be the ‘perfect’ child?

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

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

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

- At home with your family?
- With the law?

At school with grades or behavior?

With your friends?

With your job?

Appendix F

Proctor Script

Proctor Script

“Good morning/afternoon. My name is Molly McDonald, and I’m here today to give you a survey. This survey is going to ask questions about difficult things that may or may not have happened to you before you were 18. This research will help us learn more about the kinds of things that happen to kids and how we can best help them. All of the information you put on your survey is anonymous. That is, we won’t be able to identify what you write with your name. You’ll notice that we will not ask you to write your name on any of the materials we give you. Please read the informed consent sheet provided to you. Please note that if you find it too difficult to continue answering any questions, or if at any point you do not want to answer a question, you may stop at any time or skip the question and you will still receive two research credits. If you agree to participate in the study, please sign where indicated. Your consent form will be separated immediately from your questionnaires when you turn them into me. Please bring up your consent form and questionnaires when you are finished.

If you decide to participate in the study by completing the questionnaires, please answer the questions in the packet in the order in which they are presented. Please remember that the questions are asking about things that may or may not have happened to you BEFORE you were 18 years old. Please do not record events that happened to you AFTER you turned 18 years old. I will sign your research requirement sheet when you are done. Thank you, and please let me know if you have any questions or comments.”

Table 1.

Descriptive Statistics for Demographic Characteristics of the Participants

Variables	N = 186	Percentage
Gender		
Male	49	26.2
Female	137	73.3
Other	0	0
Age		
18	93	49.7
19	93	49.7
Sexual Orientation		
Heterosexual	177	94.7
Gay/Lesbian	1	0.5
Bisexual	6	3.2
Questioning	2	1.1
Income while growing up		
Less than 10,000	3	1.6
10,000-19,999	9	4.8
20,000-29,999	9	4.8
30,000-39,999	14	7.5
40,000-49,999	8	4.3
50,000-59,999	16	8.6

60,000-69,999	6	3.2
70,000-79,999	10	5.3
80,000-89,999	18	9.6
90,000-99,999	10	5.3
100,000 or above	42	22.5
Don't know	41	21.9

Racial group

American Indian/Alaska Native	4	2.1
Asian	2	1.1
Native Hawaiian/Pacific Islander	1	0.5
Hispanic or Latino	4	2.1
White, non-Hispanic or Latino	171	91.4
Other	4	2.1

Table 2.

Predicting DTDQ scores According to Chronicity of Traumatic Experiences

	<i>B</i>	<i>SE B</i>	β
Step 1			
Constant	1.32	.29	
URPI-THQ	0.64	.06	0.61***
Step 2			
Constant	1.70	.31	
URPI-THQ	0.63	.06	0.60***
Gender	-1.31	.45	-0.17*
Step 3			
Constant	1.63	.30	
URPI-THQ	0.51	.07	0.49***
Gender	-1.31	.44	-0.17**
Chronicity	0.02	.01	0.22**

Note: $R^2 = .37$ for Step 1, $\Delta R^2 = .03$ for Step 2 ($p < .05$). $R^2 = .39$ for Step 2, $\Delta R^2 = .05$ for Step 3

($p < .01$).

* $p < .05$

** $p < .01$

*** $p < .001$