SEVERE EMOTIONAL DISTURBANCE RATES IN A NORTHERN CALIFORNIA NATIVE AMERICAN TRIBAL COMMUNITY

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David Russell Hazard
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CALIFORNIA NATIVE AMERICAN TRIBAL COMMUNITY

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DEDICATION

To my parents, who have given so much of themselves.
To my Mom, for reading to me.
To my fiancé, Nylah, for her love, encouragement, and longsuffering.
To my advisors, Sue and Kathy, who saw me through the MSW program and this thesis.
To Jim and Gary, who have taken me under their wings.
To the village that continues to raise me.
To Christ, who bursts old wineskins.
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ABSTRACT

SEVERE EMOTIONAL DISTURBANCE RATES IN A NORTHERN CALIFORNIA NATIVE AMERICAN TRIBAL COMMUNITY

by

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This thesis involved an exploratory study of severe emotional disturbance rates among youth in a predominantly Native American tribal community in northern California. Secondary data was collected from surveys of 93 local youth attending community events in 2009 and 2010. Analysis sought to identify potential youth with severe emotional disturbance as measured by inordinate frequencies of heightened emotions and behaviors in response to anger. Mitigating factors such as gender, ethnicity, cultural engagement, substance abuse, and the number of parents in the home were examined. This study found that tribal affiliation, gender, Native American ethnicity, and cultural engagement were factors associated with differences in severe emotional disturbance indicators. The survey measures were unable to be compared with existing normed assessments for severe emotional disturbance. This study was limited by these untested measures, small sample size, and convenience sampling methods.
Recommendations for the community are to support culturally appropriate activities for all ethnicities and genders, particularly females, and to assess community youth with thorough, normed assessments for severe emotional disturbance indicators.
CHAPTER I

INTRODUCTION

Native Americans as a group face a number of risk factors and challenges to public health and wellness. In particular, Native American populations face higher rates of poverty (Pridemore, 2004), suicide, diabetes (Drywater-Whitekiller, 2006), and alcohol and drug use (King, Beals, Manson, & Trimble, 1992). In light of these factors, Drywater-Whitekiller (2006) noted that “the imminent ongoing struggle of physiological survival is obvious for Native populations” (p. 73).

Native American youths in particular struggle with changes in their culture. Pridemore (2004) noted that Native American youths face hopelessness due to poor education quality and a lack of positive role models. Drywater-Whitekiller (2006) added that Native youths are losing their culture and their cultural identity.

Rates of severe emotional disturbance (SED) are impacted by many of the same issues Native Americans face. Poverty and poverty stress both increase the likelihood of being diagnosed with SED (Costello, Messer, Bird, Cohen, & Reinherz, 1998; Santiago & Wadsworth, 2009), and persistent poverty in particular is harmful to children’s mental health (Gyamfi, 2004). Moreover, among low income populations, minorities are more likely to be Emotionally Disturbed (Lee & Jonson-Reid, 2009). Alcohol and drug use are also linked to increased SED rates (Moran & Bussey, 2007).
Based upon the co-occurrences noted above, it is expected that Native American populations will demonstrate higher SED rates. However, the unique strengths presented by Native groups may protect against SED. Corliss, Lawrence, and Nelson (2008) reported that SED rates are lowered by improved parenting skills and social supports. King, et al. (1992) found that family influences and self-efficacy are stronger in Native populations than peer influence. Identifying with one’s tribal culture decreases substance abuse and may decrease risky behavior (Skye, 2002; Pridemore, 2004). A study of these concerns and possible strengths has not yet been conducted for the focus of this study, an undisclosed tribe in northern California hereafter referred to simply as the Tribe. Places and persons affiliated with the Tribe will be referred to in this study as being Tribal places and persons. This study will attempt to identify SED indicators and measure both risk factors and protective factors among the Tribal and non-Tribal members of their community. Relationships will be examined between emotionality, responses to anger, gender, ethnicity, Tribal affiliation, and the number of parents in the home. Pervasive inappropriate responses to anger and frequent severe emotionality will be examined as indicators of SED. Based upon the literature, it is hypothesized that males, Native Americans, Tribe members, those youth less involved in cultural events, and those youth with only one adult in the home will display higher rates of SED indicators.

Tribe members are identified as those persons registered with the tribe demonstrating Tribal genealogical heritage. Gary Bess Associates (GBA, 2010a) reported the Tribe has more than 3,500 registered members, predominantly located on the Tribe’s ancestral lands. The tribal headquarters is located in a central community where this study’s data were collected. This study examined survey data collected in the head-
quarters’ community in 2009 and 2010. Several other Native American tribes comprise part of the local population as well. Addressing the specific needs of the geographically local community will serve to improve social services to the Tribe, as well as offering a limited increase in understanding service to nearby tribes and other cultures.

This research used secondary data collected by Gary Bess Associates, an evaluation firm contracted with the Tribe. Interning with Dr. Bess for the past year, this researcher has chosen to work with the Tribe on this study to offer additional in-depth findings that may assist the Tribe in planning for their community needs while utilizing the community’s strengths.

A literature review was performed to develop this thesis’ methodology. It focused on operationalizing severe emotional disturbance and determining relevant mitigating and aggravating factors for SED. The literature revealed that the definition of SED varies across different public organizations (Weaver, 2002). The varying definitions of SED limit its operationalization, thereby limiting the applicability of this study’s measurements for SED indicators.

This study’s content was limited by the available survey data insofar as the survey was composed of items selectively chosen from existing normed assessments. During analysis, a variable was created that combined the results of two survey measures, further limiting reliability and interpretation. The study was also limited by its reliance upon self-reported, convenience sampled data. One item was reversed scored, which may have confused survey respondents. Survey administrators for the Tribe noted they intentionally tried to ensure a majority of Tribal youth completed the survey, which could skew the sample set and develop an inaccurate picture of the local community at large.
Furthermore, because all data was collected from members of one community, the results will not necessarily be applicable to other geographic populations, even within the Tribe.
Defining Severe Emotional Disturbance

The U.S. Department of Education (2010) describes severe emotional disturbance as an educational label intended to identify students (age three to 21) who require unique support to succeed in elementary and secondary education settings. Fundamentally, SED affects performance in schools. Students with SED show higher rates of course failures, retention (repeating grade levels), and dropping out of school. They also report lower rates of graduation, lower grade point averages, less interaction with friends, and less community group engagement (Wagner, 1995).

Severe emotional disturbance is not a medical diagnosis, though the PACER Center (2006) reports that the Diagnostic and Statistical Manual of Mental Disorders is frequently employed in defining the term. The PACER Center (2006) also noted that different states and schools use terms of equivalent meaning, such as: (serious) emotional disturbance/disorders ((S)ED), severe emotional behavior disorder/social emotional and behavioral difficulties (SEBD), and emotional and behavioral disorders/difficulties (EBD). For example, the Center for Effective Collaboration and Practice (CECP, 2001) notes the Social Security Administration and the Center for Mental Health Services employ similar definitions. The National Dissemination Center for Children with Disabilities (NICHCY, 2010) identified disorders that fall under the scope of SED as any
of these various types: “anxiety disorders; bipolar disorder; conduct disorders; eating disorders; obsessive-compulsive disorder; and psychotic disorders” (p. 1). Behaviors of emotionally disturbed children may include defiance, attention seeking, hypersensitivity, irritableness, hyperactivity, aggression, self-harm, withdrawal, immaturity, excessive fear or anxiety, and learning difficulties (PE Central, n.d., para. 2).

Learning Disabilities Online noted that severe emotional disturbance was initially defined under the Education for All Handicapped Children Act, Public Law 94-142, in 1975, which is now known as the Individuals with Disabilities Education Act (IDEA) (WETA, 2010). Under IDEA, SED is one of 13 areas of disability, comparable with visual impairment or deafness (IDEA, 2004). The Substance Abuse Mental Health Service Administration cited the Federal Register of May 20, 1993, in defining serious emotional disturbance by including the Diagnostic & Statistical Manual. The Federal Register defined children with serious emotional disturbance as:

. . . persons, from birth up to age 18, who currently or at any time during the past year, have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet the diagnostic criteria specified within DSM-III-R (or comparable criteria), that resulted in functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities. (Program Announcement 123, 1993, p. 29425)

The 2010 Code of Federal Regulations (C.F.R.) lists the diagnostic criteria for SED under IDEA:

. . . a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects a child’s educational performance: (A) An inability to learn that cannot be explained by intellectual, sensory, or health factors. (B) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers. (C) Inappropriate types of behavior or feelings under normal circumstances. (D) A general pervasive mood of unhappiness or depression. (E) A tendency to develop physical symptoms or fears associated with personal or school problems. (Assistance to States for the Education of Children with Disabilities, 2006, p. 47565)
The National Association of School Psychologists (NASP, 2005) uses a third definition, adapted from the National Mental Health and Special Education Coalition. The NASP SED definition normalizes and broadens the understanding of SED (in this case, EBD) by noting that EBD is a response to stressors in a youth’s life. However, this definition also suggests that various types of treatment interventions are invariably unsuccessful.

Emotional or Behavioral Disorder (EBD) refers to a condition in which behavioral or emotional responses of an individual in school are so different from his/her generally accepted, age appropriate, ethnic or cultural norms that they adversely affect performance in such areas as self care, social relationships, personal adjustment, academic progress, classroom behavior, or work adjustment.

EBD is more than a transient, expected response to stressors in the child's or youth’s environment and would persist even with individualized interventions, such as feedback to the individual, consultation with parents or families, and/or modification of the educational environment.

The identification of EBD must be based on multiple sources of data about the individual's behavioral or emotional functioning. EBD must be exhibited in at least two different settings, at least one of which is school related.

EBD can co-exist with other disabilities.

This category may include children or youth with schizophrenia, affective disorders, anxiety disorders, or who have other sustained disturbances of behavior, emotions, attention, or adjustment. (NASP, 2005, para. 2)

The Code of Federal Regulations, the Federal Register, and the NASP each offer a different, but similar, definition for severe emotional disturbance. Each definition presents strengths and weaknesses in its approach. For example, the Federal Register’s requirement of a DSM diagnosis is challenged by the NASP requirement for the identification of SED to “be based on multiple sources of data” (NASP, 2005, para. 2). For multiple sources of data to be effective, students’ emotional and behavioral functioning must be interpreted in a culturally relevant way.
Community Definitions

Increasingly, community groups beyond the field of education have also begun to identify youth with SED from a culturally specific perspective, with the goal of increasing community awareness of youth issues (Simmons, Novins, & Allen, 2004). Simmons, et al. (2004) noted “most definitions emphasized the community context – that SED not only affects the individual but also affects the family and community” (p. 62). The Federal Register and Code of Federal Regulations presented definitions that emphasized individual impairment. A communal definition allows the tribe to evaluate SED rates and responses holistically, and to bypass the difficulties and expenses found in clinically diagnosing SED youth. Even the NASP notes that “formal diagnosis [such as the DSM IVR]…is appropriate, but no single diagnosis should be used to deny services to students” (NASP, 2005, para. 3).

Gary Bess Associates (GBA) has worked with several Native American tribes in crafting a unique definition of SED. This includes the Tribe, who are the focus of this study. Utilizing adult and youth survey input, the Tribe approved two definitions for SED. The two definitions indicate a perception of the co-creating, mutual relationship between the individual and the community. In the first definition, the external environment and life experiences cause internal emotional disturbances. The second definition stresses that internal emotional disturbances result in external negative behaviors. The most popular definition for SED among both Tribal adults and youth was:

Children and youth experience many things in life like alcohol abuse among family members and friends, lack of spirituality, physical abuse, poverty, death, teen pregnancy, and parent/child problems that causes them to develop low esteem, depression, anxiety, stress, anger, fear, guilt, sadness, doubt, or shame. (Emphasis in original, GBA, 2010b)
This culturally appropriate understanding of SED reveals significant agreement with the clinical definitions, while offering the community conceptions and goals to pursue on a broad scale. For the purpose of this thesis, however, a more measurable focus is required. Subsection C of the IDEA definition provides sufficient clarity for a measurable definition. Additionally, the definition offered by IDEA in the Code of Federal Regulations (C.F.R., 2010) is employed at a federal level for all public schools in the US, maintaining relevance for the Tribal community. The Federal Register’s definition excludes children whose disorders result in distress but not impairment—a delineation this exploratory study will not address (Costello, Messer, Bird, Cohen, & Reinherz, 1998).

National Rates and Demographics

For the United States, estimated rates of severe emotional disturbance vary depending on the definition used, measurement method, and the age range selected (Wagner, 1995). Birth to 21 years, three to 18, nine to 17, and six to 21 years are all ranges employed in different surveys (Costello, et. al, 1998). During the 2006-2007 school year, approximately 6,081,000 school children (age 6 to 21) were enrolled in special education programs—about ten percent of all students. Of those six million, 7.5% were enrolled for “emotional disturbance” (Data Accountability Center, 2010). An estimate can then be made for SED rates nationwide as being less than one percent (0.75%) of all school children, which is similar to the 0.9% of children three to 21 with SED reported by the National Center for Education Statistics (2010).

The DAC and NCES estimated SED rates of less than one percent may be low. The PACER Center (2006) noted studies suggesting that eight to 12% of children
have emotional disturbances and could benefit from intervention. Similarly, the Center for Disease Control and Prevention reported that “approximately 8.3 million children (14.5%) aged 4–17 years have parents who’ve talked with a health care provider or school staff about the child’s emotional or behavioral difficulties” (NICHCY, 2006, p.2). Friedman, Katz-Leavy, Manderscheid, and Sondheimer (1998) estimated between five and 13 percent of children age nine to 17 have SED, depending on the criteria and definition employed.

Risk Factors

While the exact causes of SED are uncertain, prevalence rates vary across demographics. Knitzer, Steinber, and Fleisch (1990) said, “It is becoming clear that the more high-risk factors in a child's life, the greater the likelihood that emotional and behavioral disorders will result.” (cited in Wagner, 1995, p. 97). Wagner (1995) noted that, in particular, SED rates are higher among males, African Americans, and the economically disadvantaged. Wagner (1995) noted that “forty-four percent of students with SED came from single-parent households, compared with about one-fourth of the general population of students” (p. 97). Simpson, Bloom, Cohen, and Blumberg (2005) also reported that older children and children from single-mother homes are also more likely to have SED. Subset factors may also affect SED rates—for example, Costello, et al. (1998) reported that poverty doubles the risk for SED, but one 2003 study found no connection between poverty and SED rates for girls, but a significant correlation for boys (Simpson, et al., 2005).

Other studies found that poverty-related stress is associated with negative outcomes for children and adolescents, including anxiety and depression symptoms,
social and behavioral problems, and poor academic achievement (Wadsworth & Berger 2006; Wadsworth, Raviv, Reinhard, Wolff, Santiago, & Einhorn, 2008). Families experiencing poverty are likely to report increased family stress, such as psychological distress and lack of social support, which can contribute to negative outcomes (Corliss, et al. 2008). Satcher (2000) reported that stress levels can also be exacerbated by financial strain and social isolation (as cited in Weaver, 2002). Other studies indicate that child abuse is common in SED families (Corliss, et al. 2008). Klebanov, Brooks-Gunn, and Duncan (1994) examined the effects of neighborhood and family poverty on the home environment and reported that “neighborhood poverty was associated with a poorer physical home environment and less maternal warmth, factors that adversely affect children’s mental health” (as cited in Gyamfi, 2004, p. 1130). Brooks-Gunn and Duncan (1997) and McLeod and Shanahan (1993, 1996) found “persistent poverty is more harmful to children’s mental health than transient poverty because of greater economic deprivation” (as cited in Gyamfi, 2004, p. 1130).

Poverty and poverty—related stress affect more than physical and mental health; they may affect parenting strategies. Corliss, et al (2008) reported that a major concern for youth and families is that parents may become more passive role “in the assessment and treatment process as they relinquish the role of expert on their children’s and families’ needs to service providers” (p. 273). Family involvement in treatment should be encouraged; Osher, Quinn, and Hanley (2002) found that a lack of family involvement is associated with poorer treatment outcomes for youth with SED (as cited in Corliss, et al., 2008). Corliss, et al. (2008) cited several studies that reported increased family involvement was associated with improved treatment outcomes.
Native Americans

Mark and Buck (2006) reported that 10.3% of SED youth were Native American, while Native Americans make up only 1.5% of the US population (U.S. Census, 2000, as cited in Ogunwole, 2002). In larger studies—such as the NLTS—there are often too few Native Americans to make a substantial estimate of SED prevalence. However, the concurrent risk factors (such as poverty and social isolation) affecting the Native American population support higher expected rates for SED. The Urban Institute (1996, as cited in Pridemore, 2004) reported that Native Americans have twice the rates of unemployment and poverty than non-Indians, a gap that has increased in the last twenty years. “According to 2000 census data, more than one-quarter of the American Indian and Alaska Native Population live in poverty (as cited in Pridemore, 2004, p. 47).

Laquer (1998) reported that one reason for low Native American parental involvement in school a result of “circumstances such as lack of transportation and child care, discomfort in the school setting, language barriers, and the priority of meeting basic food, clothing, and shelter needs of families” (as cited in Pridemore, 2004, p. 48). These educational deficits may be the result of undiagnosed SED. “Nearly one-third of Native American adults are classified as illiterate, only 20% of Native American men have completed high school, and only 16% (compared to 34% of their Anglo counterparts) of those entering universities complete an undergraduate degree.” (Flemming, 1992, as cited in Pridemore, 2004, p. 48) Parental struggles and aversion to school settings may lead to a cycle of disenfranchisement with education for each generation of Native Americans.
Historical Trauma

Historical trauma is a risk factor for Native American populations that contributes to many of their current struggles (Denham, 2008). Historical trauma is conceived as the lasting effects of trauma through generations. For Native populations, the concept is frequently linked with the historical changes of forced relocation, broken treaties, loss of tribal lands, and the loss of family and cultural identity due to boarding school policies, “as well as racism, warfare, murder, smallpox (bioterrorism) and the cumulative loss of traditional life-ways, subsistence patterns and culture” (Frey, 2001; Yellow Horse Brave Heart, 2003, as cited in Denham, 2008, p. 397). Denham (2008) further explains that historical trauma can manifest as Post-Traumatic Stress Disorder (PTSD), the “primary psychiatric diagnostic category for pathological responses to trauma experiences” (p. 395).

Historical trauma symptoms are quite similar to SED features:

[Historical trauma sufferers] have observed characteristics such as higher levels of depression, withdrawal, various forms of anxiety, suicidal ideation and behavior, substance abuse, anger, violence, guilt behavior and adopting a victim identity. Researchers have also noted that descendants may have difficulty in interpersonal relationships, reduced energy, pathological expression of mourning, nightmares about traumatic experiences, insomnia, social isolation, exaggerated dependency or independence, concern over betraying ancestors for being excluded from the suffering (a sort of intergenerational survivor guilt), an obligation to share ancestral pain and a collection of other problems that are often classified as simply various other psychological or mental disorders. (Denham, 2008, p. 397)

One result of the policy of requiring Native American youth to leave their families to attend boarding school was that youth did not learn Native culture parenting skills. The lack of parenting skills is directly related to SED rates (Drywater-Whitekiller, 2006). This is one example of how the trauma and experiences of past Native American generations still impacts life today—a greater likelihood of SED.
Protective Factors

Despite the many risk factors, there are a number of protective factors against SED. Positive outcomes are associated with family involvement in treatment, as well as resilience strategies and techniques “…such as effective problem-solving strategies and adaptive responses to negative life events” (McCubbin, et al. 1998, as cited in Corliss, et al. 2008, p. 272). Additionally, Corliss, et al. (2008) noted that though there is limited research for family resiliency factors for SED, burgeoning evidence suggests that “parenting skills (e.g., discipline, negotiation, and supervision), positive mother-child relationships, and social support” are powerful protective factors (p. 272).

The Native American population offers unique opportunities to protect against SEDs. Peer influence is not as strong among Native American youth as it is among white youth (Beauvais, Wayman, Jumper-Thurman, Plested, & Helm 2002). Instead, the family exerts a stronger influence, and self-efficacy appears to be a strength for Native American populations (Sanchez-Way & Johnson, 2000).

Moran and Reaman (in press, as cited in Sanchez-Way & Johnson, 2000) reported a significant correlation between positive affiliation with one’s tribal and decreased substance use. The Pottawatomie County Survey (cited in Pridemore, 2004) also highlights culture-specific protective factors among Native American youth. For example, “over 85% believe that their cultural identity, tribal values, spiritual beliefs, and extended families help them temper potential risk factors (including peer pressure) that might normally lead to substance and/or alcohol abuse and other risky behaviors,” (p. 12). Additionally, more than 80 percent reported that they believed that volunteering
with their school, community, and tribe helped them avoid risky behavior (cited in Pridemore, 2004).
CHAPTER III

METHODOLOGY

Survey data were collected by Gary Bess Associates, an evaluator contracted with the tribe. Data sources included written surveys given to convenience samples of 93 Tribal community youth. The survey was administered by a Tribal social worker at two separate community youth events—one each in 2009 and 2010. The administering worker reported knowing all of the respondents and ensuring that no youth completed the survey twice. A copy of the survey can be found in Appendix A. The survey copy has been altered only by omitting the Tribe’s name, to protect the Tribe’s identity.

Multiple measures were collected and analyzed in this study. Measures of cultural engagement and the number of parents in the home were collected and analyzed. To operationalize the measurement of SED indicators, part C of the Individuals with Disabilities in Education Act’s definition was used: “Inappropriate types of behavior or feelings under normal circumstances” (Assistance to States for the Education of Children with Disabilities, 2004). Two measures examining youth feelings and behavioral responses to anger were analyzed for extreme or pervasive occurrences.

Native American ethnicity was measured as a dichotomous variable, with respondents reporting if they were Native American or non-Native American. Tribal affiliation was measured as a dichotomous variable as well, with respondents reporting if they were Tribal members or non-Tribal members. The delineation between Native
Americans and Tribal members was created because the Tribal geographic community involves a significant minority of other Native American tribes. It was assumed that because the Tribe’s headquarters are located in the sample community, Tribal members may have different experiences than other local Native American. The Tribe may offer specific Tribal activities to support their members, and being a relative majority population group can affect community member experiences.

A dichotomous variable, *Number of Parents*, was created. Respondents were asked which adults lived in the home with them. Responses included Mother, Father, Stepmom, Stepdad, Mother’s Partner, Father’s Partner, Grandparents, siblings over 18, Other Family, Foster Parent, or Friend of the Family. Total scores were gathered, though the category “Siblings over 18” was discarded. Responses ranged from one to five adults in the home. Total scores were then sorted into either “One Parent” or “Two-or-More Parent” groups.

**Severe Emotional Disturbance Measures**

Gary Bess Associates designed the surveys, basing the measures off existing normed assessments and similar surveys they had previously conducted. One measure on the survey examined youth emotions. For this study, this scale is referred to as the *Emotion* scale. Youth were asked “in the last six (6) months, typically, how often each week did you experience [this feeling].” Youth were given the option to respond with “Always, Most of the Time, Sometimes, Hardly Ever, or Never.” Ten items comprised this measure, which had been used by GBA in previous surveys. Items on the Emotion scale were similar to some items on the Ohio Scales. Items on this scale were applicable
to the DSM-IV diagnostic criteria for Generalized Anxiety Disorder (American Psychiatric Association [DSM-IV-TR], 2000).

Respondents’ scores were collected for seven of the ten items on the Emotion scale. The three items disregarded from the original GBA scale did not appear to compare with the constructed definition of severe emotional disturbance. A response of “Never” was scored as one point, while a response of “Always” was scored as five points. The sums of respondent’s scores to the seven items were totaled into a variable referred to as Emotion Sums. For the 86 youth who completed all seven items, Emotion Sums ranged from seven to 31.

A second variable was created from the Emotion scale responses. The same seven items were re-examined. “Most of the Time” and “Always” responses were used as an indication of heightened severity, and a new variable was created to track the total frequency of severe emotional reports. This variable was labeled Emotional Severity, and scores ranged from zero to seven. A dichotomous variable was created by utilizing the Emotional Severity scores. Respondents who indicated frequent severity on at least four of the seven items were disaggregated from those reporting severity on less than four items. Four items were chosen as the cut-point in agreement with the literature regarding functional impairment. It was decided that four pervasive emotions each week for six months would interfere with and impair functioning. This new dichotomous variable was labeled SED Emotional Threshold. Respondents reporting four or more instances of Emotional Severity were classified as Above Emotion Threshold (+ET), and those reporting less than four instances of Emotional Severity were labeled Below Emotion.
Threshold (-ET). Eight respondents met criteria for the +ET group, comprising over 9% of the 86 respondents.

A second measure was examined to test youths’ responses to anger. GBA created an 18-item measure regarding responses to anger adapted from the 41-item Adolescent Anger Rating System (AARS). The AARS is composed of three subscales. Gary Bess Associates adapted 14 of 20 items on the Instrumental Anger Scale, two of eight items on the Reactive Anger Scale, and two of 13 items from the Anger Control Subscale. Gary Bess Associates also altered the scoring of the items, from a four-point Likert scale to a five-point Likert scale. McKinney-Burney and Kromrey (2001) found the AARS demonstrated internal consistency and stability. Youth were directed “For each of the [18] statements below, please check the response that best describes you when you become angry.” The response choices were “Always, Very Often, Sometimes, Hardly Ever, or Never.” This scale will be referred to as the Anger Response scale.

Respondents’ scores were collected for 16 of the 18 items on the Anger Response scale. The two items were discarded from the original GBA scale after preliminary tests revealed no respondents indicated measurable severity in response to them. A response of “Never” was scored as one point, while a response of “Always” was scored as five points. One item on the Anger Response scale—“Have enough self-control not to hit back”—was reverse scored. The sums of respondent’s scores to the sixteen items were totaled into a variable referred to as Anger Sums. For the 84 youth completing all 16 items, Anger Sums ranged from 41 to 85.

A second variable was created from the Anger Response scale responses. The same sixteen items were re-examined. “Very Often” and “Always” responses were
categorized as an indication of heightened severity, and a new variable was created to track the total frequency of severe responses to anger. This variable was labeled *Anger Severity*, and scores ranged from zero to ten.

A dichotomous variable was created by utilizing the Anger Severity scores. Respondents who indicated frequent severity on at least five of the 16 items were disaggregated from those reporting severe anger responses on less than five items. Five items were chosen as the cut-point in agreement with the literature; it was decided that five frequent inappropriate responses to anger would constitute substantial impairment in a student’s role and functioning. This new dichotomous variable was labeled *SED Anger Threshold*. Respondents reporting five or more instances of Anger Severity were classified as *Above Anger Threshold* (+AT), and those reporting less than five instances of Anger Severity were labeled *Below Anger Threshold* (-AT). Criteria for the +AT group was met by 13 respondents, representing more than 15% of the 84 respondents.

The literature suggested that SED is displayed across various aspects of functioning, impacting emotions, behaviors, thoughts, learning, and inter-personal relationships. Regarding the two SED indicators measured in this study, an increased frequency of severe emotions would likely correspond with an increased frequency of severe responses to anger. The Combined Sums, Combined Severity, and SED Combined Threshold variables were created to test and display this assumption.

A measure was created from the composite scores of Emotion Sums and Anger Sums, a variable referred to as *Combined Sums*. While the scores on this measure shared the same five-item Likert scale, the total extreme responses are limited in their application. It was hypothesized that overall heightened severity may be revealed, even if
respondents did not report significant frequencies for individual SED indicators. The goal of this measure was to track respondent’s pervasive feelings and reports in response to anger. Combined Sums scores ranged from 60 to 102 for the 81 respondents who responded to the combined 23 items on the Emotion Scale and Anger Response Scale.

The scores of the measures Emotional Severity and Anger Severity were combined to create a variable labeled Combined Severity. Combined Severity scores ranged from zero to 14. Like the Combined Sums measure, this measure was limited by the differences between the Emotion and Anger Response scales. The decision for this measure was the understanding that functional impairment could occur not only when a few pervasive inappropriate emotions or behaviors were reported, but also when more numerous but less sustained inappropriate emotions are reported.

A dichotomous variable was created by utilizing the Combined Severity scores. Respondents who indicated frequent severity on at least nine of the 23 total items were disaggregated from those reporting severe responses on less than nine items. Nine items were chosen as the cut-point based upon the previous measures—four on Emotional Severity and five on Anger Severity. This new grouping variable was labeled SED Combined Threshold. Respondents reporting nine or more instances on Combined Severity were classified as Above Combined Threshold (+CT), and those reporting less than four instances of Emotional Severity were labeled Below Combined Threshold (-CT). Four youth met criteria for the +CT group, representing nearly 5% of the 81 respondents.
Cultural Engagement Measures

Cultural engagement was measured among youth by three items. Youth were asked the frequency of their own participation in cultural activities and their families’ participation in cultural activities. These variables were labeled *Personal Participation* and *Family Participation*. For each of the two items, survey responses were reported in one of five categories: never, one to five times per year, six to ten times per year, 11 to 15 times per year, and more than 15 times per year.

After preliminary tests displayed intriguing results, a dichotomous variable was created to further separate responses into two groups of cultural engagement. These new dichotomous variables were called *Split Participation—Personal* and *Split Participation—Family*, respectively. Respondents who reported attending never or one to five times per year were placed in the *Personally Less Often* group, while respondents who reported attending six or more activities per year were placed in the *Personally More Often* group. Using similar questioning regarding *their families’* attendance, responses were divided into a *Family Less Often* and a *Family More Often* group.

A database of each survey’s variables was generated and analyzed in SPSS/PASW. Variables included total anger response scores, self-reported feeling scores, and cultural engagement levels. Additional demographic information, including race/ethnicity, age, gender, and the number of adults in the home, were also recorded for analysis. Inferential and descriptive statistical tests were run to examine the frequencies of potential SED indicators and any correlations involving protective factors. Chi-square tests and t-tests were run to examine relationships between demographic grouping variables and SED indicators.
CHAPTER IV

RESULTS

The convenience sample for this study included 93 youth who participated in cultural activities in and around the Tribe’s central community between 2009 and 2010. The survey was disseminated to 55 youth in 2009 and 38 youth in 2010. Administrators of the survey reported knowing every youth and ensuring no youth repeated the survey.

Nearly 41% of respondents reported being Tribal members. Ninety youth reported ages ranging from ten to 20 years old, with a mean age of 15.03 (SD=2.003). The sample’s gender breakdown was: Female=60.2% and Male=39.8%. Ethnicity distribution rates were: African American=4.3%, Latino/Hispanic=8.6%, White=31.2%, Native American=63.4%, and Multi-racial/Ethnic=6.5%. It is an interesting demonstration of this study’s limitations that despite being directed to “please choose only one,” and being given the option of “Multi-racial/Ethnic,” responses for ethnicity totaled 114% (107.5% not including “Multi-racial/Ethnic.”) Youth reported living with between one and five adults in the home, giving a distribution of: One adult in the home=18.3%, Two or more parents in the home=81.7%.

Frequent negative emotions were measured as an indicator of heightened severe emotions. Table 1 displays the items on the Emotion Scale and the percentage of respondents who reported frequently feeling the emotion during each week in the past six months. Table 1 is rank ordered, with the greatest percentage of respondents listed first.
Table 1

*Emotion Scale and Frequent Respondents*

<table>
<thead>
<tr>
<th>Feeling each week in the last six months</th>
<th>n</th>
<th>Frequent Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed out</td>
<td>89</td>
<td>24.7%</td>
</tr>
<tr>
<td>Worry about everything</td>
<td>88</td>
<td>21.6%</td>
</tr>
<tr>
<td>Sad or unhappy</td>
<td>88</td>
<td>19.3%</td>
</tr>
<tr>
<td>Alone</td>
<td>87</td>
<td>8.0%</td>
</tr>
<tr>
<td>Afraid</td>
<td>88</td>
<td>8.0%</td>
</tr>
<tr>
<td>Fear for my safety</td>
<td>89</td>
<td>7.9%</td>
</tr>
<tr>
<td>Think about hurting myself</td>
<td>89</td>
<td>3.4%</td>
</tr>
</tbody>
</table>

Table 2 displays the percentage of respondents who reported frequently ("most of the time" or "always") responding to anger for each item of the Anger Response scale. Frequent inappropriate responses to anger were measured as indicators of severe behaviors. Table 2 is rank ordered, with the highest percentage of respondents reporting an item displayed first. One item on the Anger Response scale—"Have enough self-control not to hit back"—was reverse scored for this new variable, with lower scores ("hardly ever" or "never") indicating more inappropriate behavior.

Table 3 shows the groupings of respondents who indicated a level of heightened severity on each scale. These groupings report only those youth who responded to every item on each respective scale. The Above Emotion Threshold (+ET) group denotes those respondents indicating severe responses to at least four of the seven Emotion scale items. The Above Anger Threshold (+AT) group denotes those
Table 2

Anger Response Scale and Frequent Respondents

<table>
<thead>
<tr>
<th>When I am angry, I…</th>
<th>n</th>
<th>Frequent Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hit right back if someone hits me.</td>
<td>89</td>
<td>53.9%</td>
</tr>
<tr>
<td>Have enough self-control not to hit back.</td>
<td>88</td>
<td>35.8%</td>
</tr>
<tr>
<td>Have difficulty controlling my temper.</td>
<td>91</td>
<td>18.7%</td>
</tr>
<tr>
<td>Have a hot temper.</td>
<td>90</td>
<td>16.7%</td>
</tr>
<tr>
<td>Leave class without permission.</td>
<td>90</td>
<td>15.6%</td>
</tr>
<tr>
<td>Get into trouble because of my temper.</td>
<td>93</td>
<td>12.9%</td>
</tr>
<tr>
<td>Feel relieved after hurting the person who upset me.</td>
<td>93</td>
<td>10.8%</td>
</tr>
<tr>
<td>Will hurt the person who upset me.</td>
<td>90</td>
<td>10.0%</td>
</tr>
<tr>
<td>Plan to fight.</td>
<td>89</td>
<td>7.9%</td>
</tr>
<tr>
<td>Pick fights with anyone.</td>
<td>91</td>
<td>5.5%</td>
</tr>
<tr>
<td>Have thoughts about how to kill the person who made me angry.</td>
<td>90</td>
<td>3.3%</td>
</tr>
<tr>
<td>Bully others.</td>
<td>90</td>
<td>1.1%</td>
</tr>
<tr>
<td>Will find a weapon to deliberately hurt someone.</td>
<td>89</td>
<td>1.1%</td>
</tr>
<tr>
<td>Plan to destroy property</td>
<td>90</td>
<td>1.1%</td>
</tr>
<tr>
<td>Will hurt myself to get back at others.</td>
<td>91</td>
<td>1.1%</td>
</tr>
<tr>
<td>Use anything as a weapon to fight.</td>
<td>91</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

a Scores reversed to display responses of never and hardly ever.
respondents indicating severe responses to at least five of the sixteen Anger Response items. The Above Combined Threshold (+CT) group denotes those respondents who indicated a combined total of a least nine of the 23 items offered on the Emotion and Anger scales.

Table 3

**Severe Response Groupings**

<table>
<thead>
<tr>
<th>Criteria Threshold</th>
<th>n</th>
<th>Severity Group</th>
<th>Respondents above threshold</th>
<th>Percentage above threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED Emotion Threshold</td>
<td>86</td>
<td>+ET</td>
<td>8</td>
<td>9.4%</td>
</tr>
<tr>
<td>SED Anger Threshold</td>
<td>84</td>
<td>+AT</td>
<td>13</td>
<td>15.5%</td>
</tr>
<tr>
<td>SED Combined Threshold</td>
<td>81</td>
<td>+CT</td>
<td>5</td>
<td>6.1%</td>
</tr>
<tr>
<td>Any SED Threshold</td>
<td>89</td>
<td>+ET and/or +AT</td>
<td>19</td>
<td>21.3%</td>
</tr>
</tbody>
</table>

Parents in the Home

T-tests were run, comparing mean scores on the measures Emotion Sums, Anger Sums, and Combined Sums between respondents with only one parent in the home and those with more than one parent in the home. One-parent and Two-or-more-parent families did not differ significantly on Emotion Sums, $t(84) = -0.74, p = .461$. One-parent and Two-or-more-parent families did not differ significantly on Anger Sums, $t(82) = 0.59, p = .555$. One-parent and Two-or-more-parent families did not differ significantly on Combined Sums, $t(79) = 0.68, p = .496$.

Additional t-tests were run to compare the relationship of Severity frequencies between the One-parent and Two-or-more-parents groups. One-parent and Two-or-more-
parent families did not differ significantly on Emotional Severity, $t(84) = -.49, p = .627.$

One-parent and Two-or-more-parent families did not differ significantly on Anger Severity, $t(82) = .44, p = .661.$ One-parent and Two-or-more-parent families did not differ significantly on Combined Severity, $t(79) = .57, p = .570.$

Chi-square tests were run between One-parent and Two-or-more-parent homes, and the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold, respectively. The percentage of +ET and -ET respondents did not differ between the One-parent and Two-or-more-parent groups, $\chi^2(1, n= 86) = .002, p = .63.$ The percentage of +AT and –AT respondents did not differ between the One-parent and Two-or-more-parent groups, $\chi^2(1, n = 84) = .03, p = .585.$ The percentage of +CT and -CT respondents did not differ between the One-parent and Two-or-more-parent groups, $\chi^2(1, n = 81) = .000, p = .686.$

Gender

T-tests were run, comparing mean scores on the measures Emotion Sums, Anger Sums, and Combined Sums between males and females. Males and females differed significantly on Emotion Sums, $t(84) = 2.37, p = .020,$ with females reporting higher Emotion Sums. Males and females did not differ significantly on Anger Sums, $t(82) = 1.57, p = .121.$ Males and females differed significantly on Combined Sums, $t(80) = 2.77, p = .007,$ with females reporting higher Combined Sums.

Additional t-tests were run to compare the relationship of Severity frequencies with gender. Males and females differed significantly on Emotional Severity, $t(81.623) = 2.46, p = .016,$ with females reporting Sever Emotions more frequently. Males and
females did not differ significantly on Anger Severity, \( t(82) = 1.65, p = .103 \). Males and females did not differ significantly on Combined Severity, \( t(79) = .11, p = .942 \).

Chi-square tests were run for gender and the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold, respectively. The percentage of +ET and –ET respondents differed significantly by gender, \( \chi^2(1, n = 86) = 5.49, p = .019 \), with females being significantly overrepresented in the +ET group. The percentage of +AT and -AT respondents did not differ by gender, \( \chi^2(1, n = 84) = 2.20, p = .138 \). The percentage of +CT and -CT respondents did not differ by gender, \( \chi^2(1, n = 81) = 1.21, p = .272 \).

Native Americans

T-tests were run, comparing mean scores on the measures Emotion Sums, Anger Sums, and Combined Sums between Native American youth to non-Native American youth. Native Americans were found to report lower scores on each of the three Sums tests. Native Americans and non-Native Americans did not differ significantly on Emotion Sums, \( t(84) = 1.34, p = .183 \). Native Americans and non-Native Americans did not differ significantly on Anger Sums, \( t(82) = 1.35, p = .182 \). Native Americans and non-Native Americans differed significantly on Combined Sums, \( t(80) = 2.24, p = .028 \), where Native Americans reported lower Combined Sums scores.

T-tests were run on mean scores on the measures Emotional Severity, Anger Severity, and Combined Severity, comparing Native American respondents to non-Native American respondents. While no difference was significant, Native Americans reported lower frequencies on each of the three Severity scores. Native Americans and non-Native
Americans did not differ significantly on Emotional Severity, \( t(84) = 1.40, p = .165 \).

Native Americans and non-Native Americans did not differ significantly on Anger Severity, \( t(82) = 1.47, p = .146 \). Native Americans and non-Native Americans did not differ significantly on Combined Severity, \( t(79) = .25, p = .804 \).

Chi-square tests were run comparing Native American affiliation with the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold. There were no significant relationships between any Threshold group and Native American ethnicity. The percentage of Above Emotional Threshold (+ET) and Below Emotional Threshold (-ET) respondents did not differ by Native American ethnicity, \( \chi^2(1, n = 86) = 0.03, p = .870 \). The percentage of Above Anger Threshold (+AT) and Below Anger Threshold (-AT) respondents did not differ by Native American ethnicity, \( \chi^2(1, n = 84) = 0.73, p = .394 \). The percentage of Above Combined Threshold (+CT) and Below Combined Threshold (-CT) respondents did not differ by Native American ethnicity, \( \chi^2(1, n = 81) = 0.43, p = .514 \).

Tribal Affiliation

T-tests were run, comparing mean scores on the measures Emotion Sums, Anger Sums, and Combined Sums between Tribal youth and non-Tribal youth. Tribal respondents and non-Tribal respondents did not differ significantly on Emotion Sums, \( t(83.85) = -.83, p = .410 \). Tribal respondents and non-Tribal respondents approached, but did not differ significantly on Anger Sums, \( t(81.39) = 1.75, p = .084 \). Tribal respondents and non-Tribal respondents did not differ significantly on Combined Sums, \( t(78.50) = 1.20, p = .233 \).
Additional t-tests were run to compare Severity frequencies for Tribal affiliation. Tribal respondents and non-Tribal respondents did not differ significantly on Emotional Severity, $t(83.94) = 1.48, p = .142$. Tribal respondents and non-Tribal respondents differed significantly on Anger Severity, $t(75.84) = -2.25, p = .027$, with Tribal members displaying lower frequencies of Anger Severity. Tribal respondents and non-Tribal respondents also differed significantly on Combined Severity, $t(75.01) = -2.42, p = .018$, with Tribal members displaying lower frequencies of severity.

Chi-square tests were run for Tribal affiliation and the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold, respectively. The percentage of +ET and -ET respondents did not differ by Tribal affiliation, $\chi^2(1, n = 86) = 2.70, p = .101$. The percentage of +AT and -AT respondents did not differ by Tribal affiliation, $\chi^2(1, n = 84) = 1.69, p = .193$. The percentage of +CT and -CT respondents did not differ by Tribal affiliation, though it did approach significance, $\chi^2(1, n = 81) = 3.48, p = .062$, with non-Tribal members being over-represented in the +CT group.

Cultural Participation

The literature indicated that Native American youth who reported strong cultural identity were likely to report lower risky behaviors and stronger self-identity. It was surmised that stronger cultural identity would correspond to lower rates of SED indicators. Cultural identity was measured by frequency of attendance at cultural activities. Examples of cultural activities were provided: “ceremonies, gathering of traditional foods, basketry and regalia materials, traditional methods of fishing, eeling, or trapping” (GBA, 2009, p. 6). Respondents were asked to respond to two items regarding
cultural events: “How often does your family participate in cultural activities” as well as “How often do you participate in cultural activities?” Respondents were given response choices of: “Never, 1 to 5 times a year, 6 to 10 times a year, 11 to 15 times a year,” and “More than 15 times a year.” This research tested the cultural engagement hypothesis by comparing only Tribal and Native American respondents (n = 80) rates of SED indicators in relation to respondents’ attendance at cultural events.

**Personal Cultural Participation**

Personal Participation measured respondents’ frequency of personal attendance at cultural activities. Respondents were asked “How often do you participate in cultural activities?” Answer options ranged from “Never, 1 to 5 times a year, 6 to 10 times a year, 11 to 15 times a year,” and “More than 15 times per year.” One-way ANOVA tests comparing Personal Participation groups revealed a significant effect on respondents’ mean scores of Emotion Sums, \[F(4, 70) = 3.40, p = .013\]. Post hoc comparisons using the Tukey HSD test indicated that the Emotion Sums mean score for “Never” (\(M = 18.50, SD = 5.5\)) was significantly different than the Emotion Sums mean score for “More than 15 times a year” (\(M = 11.89, SD = 4.60\)), with the Never group reporting higher Emotional Sums. Personal Participation did not show a significant effect on Anger Sums \([F(4, 68) = 1.32, p = .273]\). Personal Participation did not show a significant on Combined Sums \([F(4, 67) = .41, p = .801]\).

T-tests were run to compare SED indicator Sums between Split Participation—Personal respondents. The Personally Less Often and Personally More Often groups approached, but did not differ significantly on Emotion Sums, \(t(73) = 1.89, p = .063\), indicating higher Emotion Sums for those youth who participate Less Often
(Never to five times per year.) The Personally Less Often and Personally More Often groups did not differ significantly on Anger Sums, $t(71) = .13$, $p = .893$ The Personally Less Often and Personally More Often groups did not differ significantly on Combined Sums, $t(70) = .57$, $p = .569$.

Additional t-tests were run to compare the relationship of Severity frequencies between those participating in cultural activities Personally Less Often and Personally More Often. The Personally Less Often and Personally More Often groups did not differ significantly on Emotional Severity, $t(73) = 1.15$, $p = .256$. The Personally Less Often and Personally More Often groups did not differ significantly on Anger Severity, $t(71) = .27$, $p = .791$. The Personally Less Often and Personally More Often groups did not differ significantly on Severity Combined, $t(69) = .35$, $p = .729$.

Chi-square tests were run between Split Participation—Personal, and the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold, respectively. The percentage of $+ET$ and $-ET$ respondents approached, but did not differ significantly by Split Participation—Personal responses, $\chi^2(1, n = 75) = 3.46$, $p = .063$, indicating that those participating Personally Less Often were overrepresented in the $+ET$ group. The percentage of $+AT$ and $-AT$ respondents did not differ by Split Participation—Personal responses, $\chi^2(1, n = 73) = .23$, $p = .632$. The percentage of $+CT$ and $-CT$ respondents did not differ by Split Participation—Personal responses, $\chi^2(1, n = 71) = 11.28$, $p = .420$.

Family Cultural Participation

Family Participation measured respondents’ frequency of family attendance at cultural activities. Respondents were asked “How often does your family participate in
cultural activities?" Answer options ranged from “Never, 1 to 5 times a year, 6 to 10 times a year, 11 to 15 times a year,” and “More than 15 times per year.” One-way ANOVA tests comparing mean scores of Emotions Sums with respondents’ Family Participation groups approached, but did not report a significant effect on Emotion Sums $[F(4, 70) = 2.07, p = .095]$, with respondents generally indicating more frequent attendance reporting less extreme Emotion Sums. Family Participation did not show a significant effect on Anger Sums $[F(4, 72) = .726, p = .577]$. Family Participation did not show a significant effect on Combined Sums $[F(4, 71) = .60, p = .664]$.

T-tests were run to compare SED indicator Sums between Split Participation—Family respondents. The Family Less Often and Family More Often groups differed significantly on Emotion Sums, $t(73) = 2.72, p = .008$, indicated higher Emotion Sums for those youth whose families participate Less Often. The Family Less Often and Family More Often groups did not differ significantly on Anger Sums, $t(71) = .47, p = .640$. The Family Less Often and Family More Often groups did not differ significantly on Combined Sums, $t(70) = .64, p = .522$.

Additional t-tests were run to compare the relationship of Severity frequencies between those respondents’ families participating in cultural activities Less Often and those respondents’ families participating More Often. The Family Less Often and Family More Often groups approached, but did not differ significantly on Emotional Severity, $t(71.86) = 1.97, p = .053$, with those participating Less Often displaying more frequent Emotional Severity. The Family Less Often and Family More Often groups did not differ significantly on Anger Severity, $t(71) = .19, p = .854$. The Family Less Often and Family
More Often groups did not differ significantly on Combined Severity, \( t(69) = .97, p = .334 \).

Chi-square tests were run between Split Participation—Family and the SED Emotional Threshold, SED Anger Threshold, and SED Combined Threshold, respectively. The percentage of +ET and -ET respondents differed significantly by Split Participation—Family responses, \( \chi^2(1, n = 75) = 4.11, p = .043 \), indicating that respondents reporting their families participated Less Often were overrepresented in the +ET group. The percentage of +AT and -AT respondents did not differ by Split Participation—Family responses, \( \chi^2(1, n = 73) = .023, p = .881 \). The percentage of +CT and -CT respondents did not differ by Split Participation—Family responses, \( \chi^2(1, n = 71) = 6.40, p = .845 \).

Summary of Results

The following list presents a summary of the significant results of this study.

- Criteria for the Above Emotion Threshold (+ET) group were met by 9.4% of respondents answering all seven Emotion Scale items.
- Criteria for the Above Anger Threshold (+AT) group were met by 15.5% of respondents answering all 16 Anger Response Scale items.
- Criteria for the Above Combined Threshold group were met by 4.9% of respondents answering all 23 items from the Emotion and Anger Response Scales.
- More than one-fifth (21.3%) met criteria for either the +ET or +AT groups, of those respondents fully completing either the Emotion or Anger Response Scale.
- The number of parents in the home showed no significant effect upon any SED measure.
• Females reported significantly higher Emotion Sums and Emotional Severity scores than males. Females also reported significant overrepresentation in the +ET group, compared with males.

• Native Americans did not report a significant difference on any SED measure in comparison with non-Native Americans.

• Tribal members reported significantly lower Anger Severity and Combined Severity scores than non-Tribal members. Concurrently, Non-Tribal members reported significant overrepresentation in the +ET and +CT groups, compared with Tribal members.

• Personal participation in culture had a significant effect on Emotion Sums and Combined Sums scores, with respondents participating less often reporting higher Emotion Sums scores than respondents participating more often. Comparing the dichotomous Split Participation—Personal groups, Personally Less Often respondents were significantly overrepresented in the +ET group when compared with Personally More Often respondents.

• Comparing the Split Participation—Family groups, Family participation in culture had a significant effect on Emotion Sums scores, with Family Less Often respondents reporting higher Emotions Sums scores than Family More Often respondents. Family Less Often respondents were overrepresented in the +ET group, when compared with Family More Often respondents.
CHAPTER V

CONCLUSIONS AND
RECOMMENDATIONS

This study set out to measure SED indicators in a northern Californian Native American Tribal community. In the total sample population, 6.1% of respondents met the established criteria for the SED Combined Threshold, reporting both frequent severe emotionality and severe responses to anger. 21.3% of the total sample population met criteria for either the SED Emotional Threshold or the SED Anger Threshold, reporting either frequent severe emotionality or frequent severe responses to anger. These results establish a theoretical SED rate between 6.1% and 21.3%. The broader estimate of SED prevalence, 21.3% would indicate higher SED rates than the national average. The conservative estimate for SED of 6.1% of the sample population lies within both the National Center for Education Statistics’ (2010) estimated range of one and 13 percent of school-age children and Friedman, et al.’s (1996) range of five to nine percent. The conservative estimate established by the SED Combined Threshold is likely more indicative of the actual SED rate because it suggests substantial impairment, an integral part of the Federal Register’s definition (1993) of severe emotional disturbance. This study did not find conclusive evidence for higher SED rates than the national average in the Tribal tribe, the local Native American population, or in the entire sample population.
The literature review led to several hypotheses. It was predicted that several demographic groups—Native Americans, Tribal members, males, and youth living in a home with only one parent—would each report higher rates of SED indicators than the general population. Secondarily, it was expected that those Tribal and Native American youth who are more involved in their cultural activities (and their families) would display lower rates of SED indicators than less involved Tribal and Native American respondents.

This study measured three types of variables—demographics, SED indicators, and cultural participation habits. Demographics included Native American ethnicity, Tribal affiliation, gender, and the number of parents in the home. SED indicators included frequency of emotions and responses to anger. Cultural participation habits included personal participation and family participation. Of these three types of variables, recommendations can only be made for the tribe to regarding participation habits. By addressing the effectiveness of cultural participation, the tribe may be able to more effectively protect youth from SED.

It is recommended that the Tribal facilitate increased attendance at cultural events—not just for youth, but for the entire family. This study found that attending even a few more activities per year may prove beneficial in decreasing severe emotional indicators. The Emotion Sums mean score for those Never personally attending is 18.50, and attending one to five times per year is 14.30—an interesting, though not significant, sign.

It is also recommended that the tribe work with local schools to assess a greater percentage of the youth population. Furthermore, it is recommended that the tribe
assess its youth with normed SED assessments that address a variety of indicators, as this study found SED indicators varied by gender. Females reported higher mean scores on the Emotion scale, while males reported higher mean scores on the Anger Response scale.

Parents in Household

Unlike the literature, this study found no relationship between the number of parents/adults in the home and SED indicators. This is likely due to the limited number of respondents with only one parent in the home (18.3%). Based on the literature, the low number of respondents with only one parent is a positive indicator for the community—most youths have several adults in the home for potential support. Further research into this area might analyze SED rates through a variety of family groupings—both parents, remarried parents, parents with partners, and other non-traditional family groups.

Gender

Gender was a significant demographic in determining SED indicators. It was hypothesized that males would report higher levels of SED, but this study found that females reported significantly higher Emotion Sums and more frequent Emotional Severity. Females were also overrepresented in the +ET group, which indicates that pervasive severe emotions impact females in this community more often than males. All eight members of the +ET group were female.

There are several possible interpretations for these results. It may mean that females in this sample actually are experiencing higher rates of SED, but it may also mean that females are more emotionally aware or emotionally expressive than males. While there was not a significant difference, males reported higher Anger Response
Sums. Males might minimize the severity of their feelings, but not their behaviors. These indicators appear to match American cultural stereotypes for male and female youth behavior. Further research into the history of the Tribal culture would be interesting—is the Tribe historically patriarchal and thereby potentially neglectful of its female members’ needs?

**Native Americans and Tribal Affiliation**

While it was expected that Native Americans would report higher levels of SED indicators, the data did not support this conclusion. Native Americans reported no significant differences from other ethnicities on any measure, indicating that the rates of SED are likely the same for the two groups. However, Tribal members reported several significant differences from non-Tribal respondents, raising further questions.

Tribal members reported lower scores on every SED measure. In particular, Tribal members reported significantly less frequent Anger Severity and Combined Severity scores than non-Tribal respondents, and Tribal members were significantly underrepresented in the +ET and +CT groups. The implications of these findings are that Tribal members have lower rates of SED than the non-Tribal youth in the community. A second explanation of these results may be due to convenience sampling. Because this survey was offered at Tribal events in the Tribal headquarters community, it is possible that the survey takers were not representative of the larger community. Furthermore, being the member of a majority group often has psychological benefits for group members. While Native Americans struggle as a minority population across America, in this community the Tribe is a relative majority, possibly lessening that minority struggle for its members.
Cultural Participation

As supported by the literature, cultural participation by Tribal and other Native American respondents and their families indicated several significant relationships with SED indicators. In general, higher rates of cultural participation were associated with fewer SED indicators. Personal Participation had a significant effect on Emotion Sums mean scores, with those respondents participating Less Often reporting higher Emotion Sums mean scores. Those respondents “Never” attending cultural activities recorded significantly higher Emotion Sums scores, than those participating “15 or more times per year,” with a mean score of 11.89. The Split Participation—Personal dichotomous groupings saw a significant effect on both Emotion Sums and Emotional Severity scores, with respondents attending Less Often reporting higher Emotion Sums and more frequent Emotional Severity than those respondents attending More Often.

Family Participation also had a significant effect on Emotion Sums. The Split Participation—Family dichotomy revealed more subtle, yet significant, effects on Emotion Sums and Emotional Severity. Respondents whose families participated zero to five times per year reported higher Emotional Sums and more frequent Emotional Severity. Moreover, Split Participation—Family scores differed significantly, with respondents with families attending zero to five times per year being overrepresented for SED Emotional Threshold. All eight members of the +ET group were females whose families participate five or less times per year. It is interesting to note that this significant relationship did not occur for Personal Participation. The implication of this finding is that family relationships are strong indicators for emotional severity for females in this community.
REFERENCES


http://www.ldonline.org/features/idea2004