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THE EFFECTS OF TRAUMA EXPERIENCES IN MALTREATED ADOLESCENTS WITH RESPECT TO FAMILIAL AND CULTURAL VARIABLES

by

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A dissertation submitted in partial fulfillment
of the requirements for the

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August 2008

UMI Number: 3338185

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Dissertation Approval
The Graduate College
University of Nevada, Las Vegas

June 24, 2008

The Dissertation prepared by

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Entitled

The Effects of Trauma Experiences in Maltreated Adolescents with Respect to Familial and Cultural Variables

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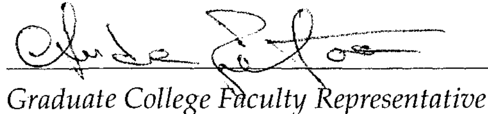

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ABSTRACT

The Effects of Trauma Experiences in Maltreated Adolescents with Respect to Familial and Cultural Variables

by

Amie Marie Lemos-Miller

Dr. Christopher A. Kearney, Examination Committee Chair
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Child maltreatment is a societal problem that affects thousands of youths in the United States. Substantial amounts of youths affected by child maltreatment develop Posttraumatic Disorder (PTSD) symptoms. Depression, maladaptive cognitions, dissociation, and anger are symptoms often associated with presentations of PTSD. Specifically, these PTSD-related symptoms may influence development and maintenance of PTSD. This study examined PTSD-related symptoms and PTSD associated with child maltreatment within a culturally competent, ecologically-based framework.

The first hypothesis was that family expressiveness, cohesion, control, conflict, and independence would mediate the relationship between (1) PTSD-related symptoms of depression, dissociation, maladaptive cognitions, and anger and (2) PTSD symptoms. The second hypothesis was that ethnic identity would mediate the relationship between (1) depression, dissociation, anger, and maladaptive cognitions and (2) PTSD symptoms.

The third hypothesis was that ethnicity/race would influence relationships outlined in the first two hypotheses. Analyses did not confirm hypotheses one, two, or three.

Increased PTSD-related symptoms did contribute to increased PTSD symptomatology. Study findings implicate depression and trauma-related cognitions as salient contributors to adolescent PTSD. Analyses did not implicate family environment and ethnic identity as mediators in this relationship. Family environment variables did relate to PTSD-related symptoms. PTSD presentations and family environment dynamics also differed according to ethnicity/race. Minimal findings emerged regarding ethnic identity with the exception of some racial/ethnic differences in ethnic identity and ethnic behaviors. A discussion of study results indicate that PTSD alone is not sufficient in explaining adolescent reactions to trauma. Considerations of PTSD-related symptoms and contextual factors (e.g., ethnicity, ethnic identification, and family) relate to PTSD and influence trauma reactions.

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ACKNOWLEDGMENTS

My husband, family, friends, and dissertation advisor and committee members deserve full recognition and much applause for guiding me as I completed this study. My committee chair and mentor, Dr. Christopher Kearney deserves my greatest appreciation. He helped me immensely with this dissertation study and with my academic and professional development. Dr. Kearney is an invaluable source of practical and insightful suggestions and devoted numerous hours towards this project. My colleagues, Adrianna Wechsler and Dio Turner spent numerous challenging hours assisting with data collection. Ms. Wechsler has been a reliable supporter of this study and is responsible for overcoming multiple barriers that initially hindered us from collecting data at Child Haven. I would also like to thank my committee members, Drs. Gottschalk, Kern, and Rennels. Thank you for your understanding, support, and knowledgeable suggestions pertaining to this project.

My family members are my biggest supporters and unwavering sources of strength and love. My deepest thanks apply to my husband, Nick, who has exhibited patience, care, and offered me strength during the completion of this endeavor. My parents, Tony and Linda, encouraged me to maintain discipline in my studies and fostered the motivation to achieve. My siblings, Alex and LindaRose have cheered me on from day one. Lastly, I would like to thank the participants, administrators, and staff at Child Haven and CAARE Center. The youth participants in this study demonstrated

admirable strength and resiliency. This study would not be possible without their participation and bravery.

CHAPTER 1

INTRODUCTION

Child Maltreatment

Child Maltreatment Definitions and Prevalence Rates

Child and adolescent clinical psychology concerns the well-being of youths affected by various circumstances. One particular area within child and adolescent clinical psychology is child maltreatment. Child maltreatment researchers are particularly interested in fostering the well-being of youths who have experienced physical maltreatment, sexual maltreatment, or neglect. In related fashion, child maltreatment researchers wish to discover how such experiences impact youth and how such information can be used to develop prevention and intervention strategies.

Approximately 872,000 allegations of child maltreatment were substantiated in 2004 (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2006). Additionally, 1,490 youths experienced fatal consequences from child maltreatment. Many other maltreatment cases are never reported to child protection agencies. The substantiated cases may thus be a gross underestimate of the total number of youths affected by child maltreatment (Straus & Kantor, 1994).

Federal and state statutes are often used to define child maltreatment (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). Under regulations outlined by the Child Abuse Prevention and

Treatment Act (CAPTA), each U.S. state/territory maintains individual child maltreatment policies. The CAPTA minimally defines child maltreatment as (Child Abuse Prevention and Treatment Act, 42 U.S.C.A. § 5106g (2)):

> *Any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act which presents an imminent risk of serious harm.*

CAPTA also defines sexual abuse as (Child Abuse Prevention and Treatment Act, 42 U.S.C.A. § 5106g (4)):

> *The employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct for the purpose of producing a visual depiction of such conduct; or the rape, and in cases of caretaker or interfamilial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children.*

Although CAPTA allows each U.S. state/territory to specify acts of child maltreatment, general definitions of each type of maltreatment will be provided. According to most child maltreatment researchers and organizations, four main categories of child maltreatment exist. These include physical maltreatment, sexual maltreatment, emotional maltreatment, and neglect (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). In addition, children and adolescents often experience more than one type of maltreatment.

Physical maltreatment involves any intentional action that results, or has the potential to result, in physical injury such as kicking, biting, or punching (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). Sexual maltreatment is generally defined as various acts involving sexual exploitation.

From substantiated cases of child maltreatment in 2004, 17.5% involved physical maltreatment and 9.7% involved sexual maltreatment.

Emotional maltreatment involves inflicting mental injury that results in behavioral or psychological harm (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). Seven-percent of child maltreatment cases were due to emotional maltreatment in 2004. Neglect is defined as parental/caretaker failure to provide necessary and minimal food, shelter, clothing, and medical resources. Neglect may include medical, educational, and emotional neglect (Wolfe, 1999). In 2004, 62.4% of child maltreatment cases involved neglect and 2.1% of all cases concerned medical neglect (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005).

CAPTA and most states also outline other situations that may constitute child maltreatment (U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). For example, child abandonment involves a guardian(s) deserting a child while not maintaining contact and/or securing care. Acts involving substance abuse, such as manufacturing controlled substances in a child's presence, is child maltreatment as well. In 2004, 14.5% of substantiated child maltreatment cases involved situations described in this paragraph.

Prevalence rates for substantiated cases of maltreatment have slightly decreased in recent years (Jones, Finkelhor, & Halter, 2006; U.S. Department of Health and Human Services, Administration on Children, Youth and Families, 2005). However, lower rates of substantiated cases are most evident for sexual maltreatment and physical

maltreatment. Substantial amounts of youths continue to experience detrimental and sometimes fatal occurrences of maltreatment.

Racial Disproportionality in Child Maltreatment Populations

In 2004, 54% of child maltreatment victims were European-American, 25% African-American, and 17% Hispanic (U. S. Department of Health and Human Services, Administration on Children, Youth and Families, 2006). Prevalence rates for American Indian/Alaskan Native, Asian-American/Pacific Islander, and other racial/ethnic categories comprised remaining cases. Approximately 20 of every 1,000 African-American children, 18 of every 1,000 Pacific Islander children, 15 of every 1,000 Native-American/Alaskan Native children, 11 of every 1,000 European-American children, 10 of every 1,000 Hispanic children, and about 3 of every 1,000 Asian-American children were maltreated.

According to the National Child Abuse and Neglect Data System, a disproportionate amount of African-American, Pacific Islander, and Native-American/Alaskan Native youths were victims of child maltreatment (U. S. Department of Health and Human Services, Administration on Children, Youth and Families, 2006). Several researchers have examined racial/ethnic disparities that exist in the child welfare system (Ards, Myers, & Malkis, 2003; Ashton, 2004; Garland, Landsverk, & Lau, 2003; Lu, Landsverk, Ellis-Macleod, Newton, Ganger, & Johnson, 2004; Needell, Brookhart, & Lee, 2003). The term racial disproportionality is often used regarding the fact that ethnic minority children and families in the child welfare system are overrepresented compared to the general population or overall victim rates (Courtney & Skyles, 2003). For

example, Spearly and Lauderdale (1983) found that higher rates of African-Americans residing in a particular Texas county predicted higher maltreatment rates.

Other situations contribute to child welfare racial disproportionality, such as number of children entering and exiting foster placements or other out-of-home care. For example, African-American children are overly represented in the child welfare system and, when placed in out-of-home facilities, stay in these situations for longer times compared to other youths (Needell, Brookhart, & Lee, 2003). Some researchers note that ethnicity/race and social class continue to be confounded in research and national statistics of maltreatment and violence, providing an unclear picture of racial disproportionality (DeBruyn, Chino, Serna, & Fullerton-Gleason, 2001; Garbarino & Ebata, 1983). To better serve ethnic minority children and families in the child welfare system, child protective agencies need to consider how ethnic/racial group values and beliefs are related to maltreatment.

Effects of Child Maltreatment

In the mid-1970s, more funding was allocated for research into child maltreatment (Wolfe, 1999). As a result, many professionals found children to suffer negative psychological and physical ailments from such experiences. Children experiencing maltreatment are at risk for minor, severe, or fatal physical injuries as well as minor to severe developmental, behavioral, and emotional problems (Cole & Putnam, 1992; Crittenden & DiLalla, 1988; Egeland & Sroufe, 1981; Hartman & Burgess, 1989; Price & Glad, 2003; Wolfe, 1999).

The nature and severity of difficulties associated with maltreatment may depend on the specifics, frequency, and intensity of the experience (Elwell & Ephross, 1987). In

one study, sexually maltreated youths who reported force, physical injury, and penetration had more psychological symptoms than other maltreated children. Following this section is a review of common psychological problems associated with child maltreatment.

Intellectual/Cognitive Deficits

Physically maltreated children may exhibit poorer language comprehension compared to non-maltreated children (Fox, Hong, & Langlois, 1988). In addition, severely neglected children may exhibit poorer language comprehension compared to children who experience less severe neglect. Researchers speculate that impaired language development may be related to poor malnutrition or untended medical ailments.

The effects of child maltreatment and neglect may persist into adulthood (Perez & Widom, 1994). For example, adults who had experienced child maltreatment had lower IQ scores, and experiences of neglect were related to lower IQ scores and lower reading ability compared to controls (Perez & Widom, 1994). Perez and Widom (1994) reported that child sexual maltreatment was unrelated to lower cognitive functioning compared to non-maltreated control participants. However, Basta and Peterson (1990) found that children who experienced sexual maltreatment (e.g., intrafamilial or extrafamilial) had lower verbal IQs compared to controls. Similar results are reported by other researchers. For example, sexual maltreatment has been associated with lower intellectual abilities and classroom competence compared to controls (Trickett, McBride-Chang, & Putnam, 1994). Many researchers have documented associations between verbal-related scores and child maltreatment (Basta & Peterson, 1990; Fox, Hong, & Langlois, 1988). A

general consensus however, is that child maltreatment, especially physical maltreatment and neglect, does impair cognitive functioning to some extent (Crouch & Milner, 1993).

Behavioral Excesses

Sexually maltreated females may exhibit higher levels of externalizing problems compared to non-clinical females (Mannarino, Cohen, & Gregor, 1989). However, sexually maltreated females may exhibit externalizing difficulties at levels similar to non-sexually maltreated females with various psychological difficulties. Other researchers have also found higher levels of externalizing problems among maltreated youths compared to controls (Cicchetti & Rogosch, 1997). Adults, especially males with histories of child maltreatment, exhibit higher rates of violent criminal acts compared to controls (Rivera & Widom, 1990).

Emotional and Information-Processing Deficits

Child maltreatment relates to social withdrawal and poor peer relationships (Cicchetti & Rogosch, 1997; Dodge, Pettit, & Bates, 1994). Physically maltreated youths tend to be more disliked and less involved with peers compared to controls (Dodge, Pettit, & Bates, 1994). Some researchers have concluded that these youths exhibit social difficulties due to several developmental problems associated with maltreatment experiences, such as poor attachment patterns and difficulties with emotional regulation (Rogosch, Cicchetti, & Aber, 1995; van der Kolk & Fisler, 1994).

Severe experiences of child maltreatment influence a youth's social, emotional, and cognitive development and functioning (Cole & Putnam, 1992; Gaensbauer & Sands, 1979; van der Kolk & Fisler, 1994). For example, neglect may foster insecure mother-child attachments (Egeland & Sroufe, 1981). Some maltreated children may increasingly

exhibit a behavioral pattern called compulsive compliance compared to controls (Crittenden & DiLalla, 1988). Compulsive compliance is an adaptive behavior developed by maltreated children that involves inhibited emotion, overcompliance, and passivity toward an abusive parent (Crittenden & DiLalla, 1988). Some researchers view compulsive compliance as a way of preventing the maltreated parent from becoming angry and engaging in maltreatment.

Other internalizing and emotional difficulties are also exhibited by maltreated youths compared to controls (Cicchetti & Rogosch, 1997; Mannarino, Cohen, & Gregor, 1989). For example, pathological dissociative experiences often occur in maltreated and severely neglected children and adolescents (Brunner, Parzer, Schuld, & Resch, 2000; Coons, 1996; Plattner et al., 2003; Silberg, 2000). Examples of dissociation include mind-body detachment, forgetting aspects of a trauma, or sense of numbness in painful or distressing situations (van der Kolk, 1996a).

Some researchers posit that physically maltreated children do not develop appropriate affect and behavioral regulation, which may contribute to poor social relationships and violence (Rivera & Widom, 1990; Rogosch, Cicchetti, & Aber, 1995; van der Kolk & Fisler, 1994). Specifically, physical maltreatment may prevent children from developing an appropriate understanding of emotional and interpersonal functioning. The latter failure in development may hinder a youths' future ability to interact appropriately with peers.

Maltreated youths also appear to interpret non-abusive situations more negatively than controls (Rodriguez, 2006). Rodriguez (2006) reported that higher levels of parental physical maltreatment potential were related to more child internalizing difficulties.

However, this relationship was somewhat mediated by a greater tendency to interpret positive relationships and events in an uncontrollable and pessimistic way. The authors theorized that this maladaptive attributional style for positive events stems from experiences of maltreatment viewed as uncontrollable. These distorted attributions may increase child internalizing symptoms such as hopelessness or withdrawal.

Boys who experienced physical maltreatment were more likely to interpret various ambiguous situations as hostile compared to controls (Price & Glad, 2003). Physically maltreated children are more likely to view their mother's ambiguous actions as hostile, which in turn contributes to a child's view that the actions of others (e.g., teacher, peer, non-familiar people) are hostile. Children experiencing maltreatment at higher frequencies and younger ages may fail to develop adequate emotional and impulse regulation due to abusive or neglectful caretaker practices and problematic caretaker-child interactions (van der Kolk & Fisler, 1994). When in abusive situations, these children appear to utilize specific emotional coping strategies such as compulsive compliance, dissociation, or hypervigilance to hostility (Brunner, Parzer, Schuld, & Resch, 2000; Crittenden & DiLalla, 1988; Price & Glad, 2003). These children continue to rely on these coping strategies when interpreting ambiguous social cues or managing minor difficulties in peer relationships. Unfortunately, many of these coping strategies may be ineffective or fail to resolve the child's problem.

Physically maltreated children may develop information-processing strategies involving quick responses to potential cues of threat (Pollak & Tolley-Schell, 2003). These children seem to attend more to angry faces compared to non-maltreated children. Physically maltreated children may also have more difficulty refocusing their attention

after exposure to these faces. Pollack and Tolley-Schell (2003) speculated that maltreated children who develop these selective attention strategies may have trouble with emotional regulation. Emotional dysregulation may contribute to various psychological and peer-related problems because these youths may be overly impulsive or incorrectly interpret socio-emotional cues.

Comorbidity

Maltreated youths meet criteria for more psychiatric disorders compared to non-clinical, non-maltreated youths (McLeer, Dixon, Henry, Ruggiero, Escovitz, Niedda, & Scholle, 1998). Major depressive disorder and separation anxiety disorder are more common to maltreated youths than non-clinical, non-maltreated youths (Cicchetti & Rogosch, 1997; Linning & Kearney, 2004; Richert, Carrion, Karchemskiy, & Reiss, 2006; Sadowski, Trowell, Kolvin, Weeramanthri, Berelowitz, & Gilbert, 2003; Sansonnet-Hayden, Haley, Marriage, & Fine, 1987). Furthermore, maltreated youths qualify for a similar amount of psychiatric disorders compared to clinical, non-maltreated youths.

Symptom presentation. Researchers report higher levels of general anxiety and depressive symptoms in maltreated youths compared to controls (Allen & Tarnowski, 1989; Gomes-Schwartz, Horowitz, & Sauzier, 1985; Johnson, Greenhoot, Glisky, & McCloskey, 2005; Mannarino, Cohen, & Gregor, 1989; Saigh, 1989; Sansonnet-Hayden et al., 1987; Toth, Manly, & Cicchetti, 1992). Some researchers have documented more conduct symptoms in maltreated youths as well (Sansonnet-Hayden et al., 1987). Maltreated children and adolescents also exhibit clinically significant posttraumatic stress symptoms (Finkelhor, 1990; Kiser, Heston, Millsap, & Pruitt, 1991; Linning &

Kearney, 2003; Lemos-Miller & Kearney, 2006; Wolfe, Sas, & Wekerle, 1994). Many researchers studying the effects of maltreatment have focused on the relationship between maltreatment and PTSD symptomatology in youths. This relationship is described next in more detail.

Posttraumatic Stress Disorder in Maltreated Youths

PTSD Diagnostic Criteria

PTSD is an anxiety disorder classified by the American Psychiatric Association (American Psychiatric Association, 2000; Pitman, Shalev, & Orr, 2000). Davidson (1993) noted that diagnostic criteria for PTSD are partially based on the cause of the main symptoms, which is trauma involving life-threatening or extraordinary stress. An individual must experience an event they perceive and react to as uncontrollable and with fear and/or horror (American Psychiatric Association, 2000). Examples of traumas include military combat, child maltreatment, assault, motor vehicle accidents, and natural disasters (American Psychiatric Association, 2000).

The DSM-IV-TR outlines six main symptom categories (criterion A, B, C, D, E, and F) for PTSD (see Table 1). Criterion A is that an individual must experience or witness a threatening traumatic event to which he reacts with generalized fear and helplessness. The threat must result in personal injury or threaten one's integrity and/or involve risk of injury or death.

Criteria B, C, and D involve symptoms of reexperiencing, avoidance, and arousal (American Psychiatric Association, 2000). An individual must experience at least one reexperiencing symptom, at least three avoidance/numbing symptoms, and at least two arousal symptoms. Reexperiencing symptoms involve dissociative experiences (e.g.,

flashbacks) or reliving a trauma via invasive recollections, dreams, and physiological reactivity, or distress in response to cues reminiscent of the event.

Avoidance symptoms include evasion of internal and external reminders related to the trauma (American Psychiatric Association, 2000). Avoidance symptoms involve affect restriction, detachment from others, losing interest in activities, and belief that one will have a doomed or foreshortened future. Avoidance symptoms may also involve failing to recall parts or all of a traumatic event. Increased arousal may involve sleep problems, anger modulation difficulties, concentration problems, and/or sensitivity to threat cues as demonstrated by extreme hypervigiliance and an enhanced startle response.

Individuals must meet criteria A, B, C, and D for at least one month after the traumatic event (American Psychiatric Association, 2000). Furthermore, the symptoms must interfere with one's social, family, and occupational responsibilities. Specifiers within the diagnosis of PTSD apply in certain cases. For example, if symptoms persist longer than three months, then chronic PTSD applies. If symptoms appear for less than three months, then acute PTSD is diagnosed. PTSD with delayed onset occurs when PTSD symptoms do not develop until 6 months after the traumatic event. Acute stress disorder occurs if symptoms similar to PTSD occur for less than one month.

Table I

PTSD Diagnostic Criteria

Criteria	Required Symptoms	Symptom Descriptions
A. Trauma	Both	Experience or witness event involving personal injury, threats to self-integrity, or threatened injury or death
		Feelings of uncontrollability and extreme fear during the event
B. Reexperiencing	1+	Intrusive distressing trauma recollections
		Distressing trauma-related dreams
		Dissociative experiences (e.g., flashbacks)
		Psychological distress when exposed to trauma cues
		Physiological distress when exposed to trauma cues
C. Avoidance/Numbing	3+	Avoidance of trauma-related thoughts, feelings, or conversations
		Avoidance of trauma-related activities/places/people
		Forgetting all/entire trauma
		Loss of interest in activities
		Detachment from others
		Affect restriction
		Belief of a foreshortened/doomed future
D. Arousal	2+	Sleep problems
		Anger modulation problems
		Concentration problems
		Hypervigilance
		Enhanced startle response

E. Symptom Duration	1 month	
F. Impairment		Impairment in social, family, and/or occupational functioning

Note. From "*Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision*," by American Psychiatric Association, 2000, p. 463-468. Copyright 2000 by the American Psychiatric Association.

PTSD diagnostic criteria in youth. Age and developmental level may influence the presentation of PTSD (American Psychiatric Association, 2000; Vogel & Vernberg, 1993). Children may express PTSD symptoms differently than adults (Terr, 1991). The DSM-IV-TR includes guidelines for PTSD in children (American Psychiatric Association, 2000). A child's reactions during the traumatic event may involve behavioral agitation instead of generalized fear or helplessness. In young children, reexperiencing symptoms can reflect nightmares that do not necessarily reflect trauma but may feature generalized and related content such as monsters (American Psychiatric Association, 2000; Terr, 1991).

Children may also exhibit reexperiencing symptoms by reenacting trauma through repetitive play (American Psychiatric, 2000; Terr, 1991; Vogel & Vernberg, 1993). Arousal symptoms can represent an increase in tantrums or general irritability (Vogel & Vernberg, 1993). Increased somatic symptoms such as headaches or stomachaches may also reflect distress in children with PTSD (American Psychiatric, 2000). Knowledge of PTSD in children and adolescents may require examination of research concerning PTSD symptoms in youths. To assess for reexperiencing, avoidant, numbing, and arousal symptoms in younger children, interview multiple sources such as teachers and/or parents.

PTSD Prevalence

The American Psychiatric Association (2000) reports community-sampled, lifetime adult prevalence rates of 8% for PTSD. Results from the 2001-2003 national comorbidity survey replication indicated that 12-month prevalence rates of PTSD were approximately 3.5% among community sampled adults (Kessler, Chiu, Demler, &

Walters, 2005). Results from the 1995 national survey of adolescents indicated 6-month prevalence rates of PTSD to be 10% (Kilpatrick et al., 2003). Females are more likely to report PTSD symptoms than males (Kessler, 1998; Kilpatrick et al., 2003; Putnam, Hornstein, & Peterson, 1996). PTSD rates in community-sampled adolescents revealed 6-month prevalence rates of PTSD to be 6.3% for females and 3.7% for males (Kilpatrick et al., 2003).

Rates of PTSD in maltreated youths vary, though some researchers report that 48% of sexually maltreated children and 55% of physically and sexually maltreated youths have PTSD (Kiser, Heston, Millsap, & Pruitt, 1991; McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988). Children and adolescents who witness intrafamilial domestic violence are also prone to develop PTSD (Lehmann, 2000). Youths with frequent and severe maltreatment history appear more likely to develop PTSD compared to controls (Kiser et al., 1991). A perpetrator may also influence whether PTSD develops. Youths maltreated by fathers or familiar adults are more likely to develop PTSD compared to youths maltreated by other children/adolescents (Kiser et al., 1991; McLeer et al., 1988).

PTSD Course and Outcome in Youths

PTSD typically develops soon after a trauma (American Psychiatric Association, 2000). The course, severity, and development of PTSD often depends, however, on the specific trauma experience, family history, social support, parental reactions to the trauma, and personality factors (American Psychiatric Association, 2000; Ruggiero, McLeer, & Dixon, 2000; Wolfe, Sas, & Wekerle, 1994). Various contextual factors such as specific nature of the trauma, an individual's interpretations, and other preexisting factors (e.g., a supportive family) contribute to subsequent psychological reactions

(Davidson, 1993; Finkelhor, 1990). People who experience war, rape, sexual maltreatment, or genocide may be at higher risk for developing PTSD (American Psychiatric, 2000; Dixon, Howie, & Franzcp, 2005; Kilpatrick & Resnick, 1993). Not all individuals who experience a trauma develop symptoms of PTSD or formal PTSD (Davidson, 1993; Dixon, Howie, & Franzcp, 2005). Furthermore, some youths who do not meet formal criteria for PTSD may show subclinical or transient PTSD symptoms following maltreatment (McLeer et al., 1988).

According to the American Psychiatric Association (2000), about 50% of PTSD cases subside after three months. Some individuals experience chronic PTSD as symptom severity fluctuates in response to life stress or exposure to trauma cues. Adolescents who develop PTSD and who do not receive treatment may continue to exhibit mild PTSD symptoms for several years after trauma (Goenjian et al., 2005; Perkonigg et al., 2005). The course of PTSD symptomatology may depend on various contextual and individual factors before, during, and after the traumatic experience (American Psychiatric, 2000; Goenjian, et al., 2005; Perkonigg, et al., 2005). For example, the presence of a strong social support network may hinder PTSD symptoms (Carlson, Dalenberg, Armstrong, Daniels, Loewenstein, & Roth, 2001). The presence of perpetrator violence during maltreatment may exacerbate PTSD development.

PTSD may be difficult to assess in younger children, especially youngsters with limited vocabulary (Terr, 1991; Vogel & Vernberg, 1993). However, occurrences of PTSD symptoms in preschoolers emerge in some studies (Liberman, Van Horn, & Ippen, 2005; Vogel & Vernberg, 1993; Yorbik, Akbiyik, & Kirmizigul, 2004). Young children exposed to trauma may also display a wide range of behavioral and emotional symptoms

(Liberman, Van Horn, & Ippen, 2005). Adolescent presentations of PTSD may more closely mirror adult PTSD. More studies need to be conducted with children and adolescents exposed to trauma.

PTSD Etiology

Several etiological biological, cognitive, and learning theories have been proposed for PTSD (Pitman, Shalev, & Orr, 2000; Silove, 1998). Silove (1998) proposed that PTSD arousal and intrusion symptoms stem from activity in the limbic system and cortex. The limbic system instinctively responds to innocuous cues associated with trauma memories without integrating these signals with the cortex, which is more involved in cognitively and logically interpreting sources of threat. As a result, an individual automatically responds to cues associated with trauma by becoming physiologically aroused.

The individual cannot cognitively comprehend or realistically assess a situation and instead reacts to situational cues with intense physiological symptoms or overlearned survival responses (Silove, 1998). Other researchers believe that individuals with PTSD overattend to cues associated with their trauma. For example, Bryant and Harvey (1995) reported that people with PTSD devoted more attention to, and were more distracted by, words associated with trauma than controls.

van der Kolk, van der Hart, and Marmar (1996) asserted that whether extreme stressors are considered traumatic depends on individual interpretations of the event. Individuals who develop PTSD process extreme events in a faulty fashion and employ dissociation as a coping strategy during and after trauma. Unfortunately, dissociative strategies prevent someone from forming a cohesive and integrated view of their

experience. Following trauma, these individuals may view innocuous stimuli as threatening or are overly sensitive to insignificant cues associated with trauma. Individuals who develop PTSD employ distorted, faulty information processing to cope with trauma (van der Kolk et al., 1996). These cognitive strategies are actually maladaptive and maintain or strengthen PTSD symptoms. PTSD and dissociative symptoms inextricably relate in this model.

Acute Stress Disorder

For some maltreated children, acute stress disorder is often a preliminary diagnosis for PTSD. Acute stress disorder (ASD) parallels PTSD in many ways. ASD is diagnosed only after an individual experiences or witnesses a traumatic event involving real or threatened injury or death which they view as uncontrollable and fearful (American Psychiatric Association, 2000) (see Table 2).

Diagnostic criteria for ASD feature numerous dissociative symptoms (American Psychiatric Association, 2000). An individual must exhibit at least three dissociative symptoms such as emotional numbing, derealization, and forgetting part or all of the trauma. A person must experience at least one reexperiencing symptom, avoidant symptom, and arousal symptom. As with PTSD criteria, a person must experience significant dysfunction in family, career, or social life.

To diagnose ASD, symptoms must be present for a minimum of two days to a maximum of one month after the trauma (American Psychiatric Association, 2000). If the symptom pattern persists after one month, a diagnosis of PTSD may be considered. According to the American Psychiatric Association (2000), prevalence rates of ASD range from 14-33%. Many individuals and children with PTSD initially meet criteria for

ASD, providing evidence that ASD symptoms often develop into PTSD over time (American Psychiatric Association, 2000; Meiser-Stedman, Yule, Smith, Glucksman, & Dalgeish, 2005). However, as with PTSD, certain traumatic events such as war, genocide, assault, or rape may place an individual at a higher risk for ASD compared to individuals exposed to less salient or severe traumas.

Table 2

ASD Diagnostic Criteria

Criteria	Required Symptoms	Symptom Descriptions
A. Trauma	Both	Experience or witness event involving personal injury, threats to self-integrity, or threatened injury or death
		Feelings of uncontrollability and extreme fear during the event
B. Dissociation	3+	Numbness, detachment, or lack of emotional responsiveness
		Less awareness of external environment
		Derealization
		Depersonalization
		Dissociative amnesia
C. Reexperiencing	1+	Recurrent images, thoughts, illusions, or dreams
		Flashbacks/reliving the trauma
		Distress when reminded of trauma
D. Avoidance		Avoidance of trauma-related thoughts, feelings, conversations, activities, places, or people
E. Anxiety/Increased Arousal		Sleep problems, irritability, concentration problems, hypervigilance, enhanced startle response, and/or restlessness
F. Impairment		Impairment in social, family, and/or occupational functioning or in seeking help for dealing with the trauma
G. Symptom Duration		Minimum of 2 days-maximum of four weeks

H. Considerations	Symptoms are not due to effects of a substance, medical condition, preexisting disorder, or psychosis

Note. From "*Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision*," by American Psychiatric Association, 2000, p. 469-472. Copyright 2000 by the American Psychiatric Association.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Theories Related to Child Maltreatment

Risk and Resilience in Child Maltreatment

On a yearly basis, child maltreatment affects the well-being of thousands of children and adolescents in the United States (U. S. Department of Health and Human Services, Administration on Children, Youth and Families, 2006). Child maltreatment often results in intellectual, emotional, physical, behavioral, and sometimes fatal consequences (Cicchetti & Rogosch, 1997; Hartman & Burgess, 1989; Fox, Hong, & Langlois, 1988; Linning & Kearney, 2004; Perez & Widom, 1994; Wolfe, 1999). Specifically, maltreatment increases a child's potential to experience maladaptive coping strategies, emotional regulation difficulties, behavioral problems, and other psychological symptoms. Although not all youths develop psychopathology after maltreatment, many report mild to severe psychological symptoms.

A child's response to maltreatment may change with the presence of protective or resilience variables (Garmezy, 1985; Rutter, 1987). Protective and risk variables associated with child maltreatment outcomes involve family, cultural, personality, community, and societal contexts (Garmezy, 1985; Rutter, 1987). The presence of multiple protective factors guard children or enable resiliency against detrimental effects

associated with maltreatment. For example, healthy or secure parent-child relationships appear to function as a protective variable, increasing a child's resiliency when maltreated. In some instances, living in a dangerous neighborhood could function as a risk factor.

Child maltreatment effects appear to relate to various risk and protective variables in a dynamic and complicated manner (Rutter, 1987). Much individual variation exists concerning the influence of specific protective and risk variables in relation to maltreatment outcomes. Risk and protective variables may also interact to influence subsequent maltreatment effects.

Several theories attempt to explain why some children are prone to psychological symptoms after maltreatment. Some of these theorists examine multiple protective and risk factors that may influence the effects of child maltreatment. Dominant child maltreatment theories include ecologically-based models that examine child development in relation to social, economic, and family risk and protective variables (Belsky, 1980, 1993; Bronfenbrenner, 1994; Murry et al., 2001; Spearly & Lauderdale, 1983). Many ecologically-based theories of child maltreatment are heavily influenced by Bronfenbrenner's (1994) ecological theory.

Bronfenbrenner's ecological theory. The ecological theory strives to examine how a child develops based on influences from five different levels: microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1994). In the ecological paradigm, Bronfenbrenner (1994) also posited that "proximal process," or interactions between the levels, determines the amount of dysfunction or adaptation influencing child

development. The five levels described by Bronfenbrenner represent the ecological environment that influences development.

The microsystem consists of a child's unique traits (e.g., intelligence, temperament, and motivation) and the influence of family, peers, school, and work environments (Bronfenbrenner, 1993; 1994). The mesosystem involves the dynamic of the child and two or more settings. An example of a mesosystem would be a child who has sources of social supports outside of the home, such as clergy members. The exosystem involves environmental settings that influence a child indirectly. For example, a child's parent loses his job and becomes more irritable at home, which escalates potential for maltreatment.

The macrosystem involves general cultural and societal factors that influence a child (Bronfenbrenner, 1993; 1994). For example, a child may reside in a culture where others view physical punishment as acceptable. In this culture, an enhanced risk of maltreatment may exist. The chronosystem involves historical influences on a child. For example, severe and frequent maltreatment that occurs at a younger age may lead to increased psychological effects.

The ecological paradigm considers personal factors such as temperament as well as environmental factors such as family and culture to explain what will influence a child (Bronfenbrenner, 1994). Bogenschneider (1996) proposed an ecological risk/protective theory based on Bronfenbrenner's ecological model. She proposed that cumulative effects of risk and protective factors influence child development. To help at-risk adolescents, psychologists must assess specific risk and protective processes in each community.

Although Bogenschneider (1996) did not specifically apply her ecological risk/protective theory to maltreatment, she tailored the model to youths at-risk for behaviors such as teen pregnancy and substance use/abuse. Bogenschneider illustrated that problem behaviors stem from multiple risk factors such as inconsistent parenting. However, if a youth is surrounded by several protective factors, such as supportive community and school organizations, he has a higher probability of healthy psychological development.

Belsky's ecological paradigm. Belsky (1980) developed an interactive perspective on the causes of child maltreatment, which related to Bronfenbrenner's (1993, 1994) ecological model by linking the causes of child maltreatment to several influences. Belsky (1980) viewed child maltreatment as the interaction of several causal agents involving parental, child, community, and cultural factors. For example, parental factors linked to child maltreatment include family disorganization, single mothers, lack of social support, or instances where a parent experienced maltreatment as a child, was rejected by parents, or lacks knowledge regarding child care or self-care. Belsky also cites several child factors linked to maltreatment such as temperament and physical factors (1980; 1993). Temperamental factors important in maltreatment may include difficult, hyperactive, or passive children and physical factors such as premature or unhealthy infants.

Community factors leading to child maltreatment could consist of disorganized neighborhoods or neighborhoods that lack social cohesion (Belsky, 1980; 1993). Cultural agents influencing child maltreatment may include positive portrayal of violence in the media and general social violence. These parental, child, community, and cultural

factors combine to increase or decrease a child's risk of experiencing maltreatment and a parent's risk or perpetuating maltreatment.

Belsky (1980; 1993) does not believe that child traits cause maltreatment but believes they interact with parental traits to promote an abusive environment. For example, a person maltreated as a child who gives birth to a temperamentally difficult infant may engage in maltreatment. This parent may become frustrated with the infant, especially if the child was born prematurely and the parent is not properly educated about child rearing and developmental norms. Other factors also contribute to maltreatment potential such as poor parental social support and neighborhood social cohesion. Belsky (1980; 1993) reviewed the extensive literature concerning child maltreatment and combined these findings into a comprehensive etiological theory.

Although Belsky's (1980; 1993) theory is structured and comprehensive, many factors are difficult to separate into individual factors. Numerous factors are involved in child maltreatment, so any attempt to test the theory empirically will be difficult or incomplete. Researchers will struggle to examine all causal factors in Belsky's theory of child maltreatment.

Based on Bronfenbrenner's (1993; 1994) and Belsky's (1980) ecological theories, Spearly and Lauderdale (1983) examined contextual factors with respect to child maltreatment. Spearly and Lauderdale (1983) examined county statistics regarding effects of family socioeconomic status, population mobility, single/working mothers, social services, and ethnicity/race with respect to child maltreatment rates. Socioeconomic and maternal factors predicted maltreatment rates. For African-Americans and Hispanics, urban neighborhood status predicted maltreatment rates,

suggesting that increased urbanization may pose distinct risks to some groups. The authors speculated that availability of family resources may relate to child maltreatment rates because working/single maternal status was a significant predictor of increased maltreatment.

Spearly and Lauderdale (1983) urged researchers to consider various socioeconomic and contextual factors when exploring the nature of child maltreatment. Murry and colleagues (2001) also posited that ecological models are highly beneficial in examining risk and resilience in African-American families. These researchers proposed that, by examining individual, family, and community contexts, they will be able to identify protective factors that contribute to healthy child functioning in the presence of risks. This perspective may be useful to researchers examining the effects of childhood trauma in African-American families.

Burton's theory of child maltreatment. Burton and colleagues (1997) used a descriptive/correlational research approach and solicited several clinicians for information about sexually aggressive children. Burton and colleagues (1997) theorized that the mechanisms in which sexually aggressive children form their behavior can be better interpreted using Bandura's triadic model, which involves environmental, cognitive, and behavior factors.

The authors theorized that children exposed to sexual maltreatment live in an environment in which caregivers may be victims themselves (Burton, Nesmith, & Badten, 1997). The child may live in an environment where caregivers exhibit psychopathology and other maladaptive behaviors such as sexual aggression. An example of a cognitive factor is a child learning that he can engage in sexual aggression

to achieve dominance or control. Over time, behavioral factors are activated, such as when a child with these particular experiences begins to be sexually aggressive towards others. The authors stated that cognitive-behavioral therapy may benefit sexually aggressive children because several cognitive distortions and maladaptive learned behaviors exist within these children. This study has far-reaching implications for clinicians, who can prevent maltreated children from becoming abusers themselves by integrating this knowledge in their interventions (Burton et al., 1997). The authors stressed that, because environmental factors leading to aggression involve a child's family, individual and family therapy are crucial.

Summary of ecological theories of maltreatment. Due to lack of integration in the child maltreatment literature, attempts to develop a complete theory of child maltreatment have been difficult. Many researchers have attempted to explain child maltreatment in ecological perspectives to form a comprehensive theory of maltreatment (Belsky, 1980; Belsky, 1993; Bronfenbrenner, 1994; Stockhammer, Salzinger, Feldman, & Mojica, 2001; Williamson, Borduin, & Howe, 1991). Ecologically-based maltreatment theories are similar in nature and include many parental, child, community, and cultural factors interacting as risk or protective variables. A main limitation concerning ecologically-based maltreatment theories is that researchers will have difficulty deconstructing multiple interactive agents thought to contribute to maltreatment.

Ecological theories drive researchers to consider many factors that can contribute to the onset and effects of maltreatment. By considering family, societal, and economic factors that contribute to the development of psychopathology after a child experiences

trauma or maltreatment, researchers will have a better understanding of how to safeguard children from detrimental consequences. The rise of the ecological model has led researchers to consider how family environment and neighborhood factors act as risk and resilient factors following trauma (Burton & Jarrett, 2000; Murry et al., 2001).

By considering child development in relation to other, often ignored ecological factors such as race, ethnicity, and culture, researchers will be better equipped to help mainstream and diverse children. By examining racial and ethnic ecological factors, researchers will also be able to identify resilient cultural factors that help prevent negative effects of trauma. Unfortunately, most studies examining maltreatment in relation to family factors are not theory-driven.

The literature base concerning how the effects of child maltreatment are influenced by cultural and family variables is not concise. However, attempts to organize existing literature will occur. The following sections will examine risk and resilience factors related to child development. The specific focus will be family and cultural factors with respect to child psychological functioning. A review of family and cultural variables influencing healthy and at-risk child psychological development will hopefully provide a better understanding of variables that protect children against the negative effects of trauma. Foremost, descriptions of basic family functioning and important cultural variables are reviewed.

Family Environment

Healthy Family Functioning

Many characteristics comprise a family. Some researchers acknowledge that identifying normal family styles may not be possible (Walsh, 2003a). Many perspectives

on healthy family functioning do not focus on particular traits but rather relational, communication, and problem-solving patterns that promote resiliency among members. Normal and healthy families are not without problems or stress, but families that use effective and flexible problem-solving strategies can be defined as healthy and well-functioning (Richardson, Galambos, Schulenberg, & Petersen, 1984; Walsh, 2003a). A healthy family environment includes members who promote and maintain parental boundaries and authority and adaptability to change.

Baumrind (1991) conceptualized a model of parent-child relationships and family functioning. Specifically, four parenting styles are thought to influence youth development: *authoritative*, *authoritarian*, *permissive*, and *rejecting-neglecting* (Baumrind, 1991). Authoritative parents seem to influence the best youth outcomes by setting clear parent-child boundaries, family structure, and rules while not being overly punitive. Authoritative parents also consider youth's concerns and needs. Permissive parents are lenient and create low family structure, poor boundaries, and little parental confrontation while allowing a youth to regulate his emotions and behaviors. Authoritarian parents set clear and firm parent-child boundaries, family structure, and rules. Unlike authoritative parents, authoritarian parents are often overly restrictive and punitive, and fail to consider a child's concerns and needs. Rejecting-neglectful parents provide little structure, parental monitoring, and support and often disregard a child's basic needs.

Typically, "normal" or "traditional" family values are defined by European-American or Western norms. Such families often employ authoritative parenting and encourage independence and individualism in the family (Baumrind, 1991; Yamamoto & Kubota,

1983). Members are encouraged to be self-sufficient and achievement is seen as an individual accomplishment. Children are encouraged to be verbal and outgoing and develop individualized identities, which contrasts with ethnic families such as Japanese-Americans. When youths reach adolescence, healthy development often consists of becoming increasingly close to peers, possibly in lieu of family relationships (Baumrind, 1991).

Richardson and colleagues (1984) interviewed non-clinical male and female middle school students about family dynamics. Youths generally described good relationships with supportive mothers and fathers. Youths described positive interactions with family members partly due to family harmony, shared family activities, and understanding parents who cared for their needs. Family interactions were rated as more harmonious than conflictive.

Youths in the Richardson study (1984) did report minor conflicts within the family. Youths commonly reported that conflict occurred because of arguments over chores and the youth's privileges. A minority of youths did express some dissatisfaction within the family, citing parents who exhibited angry outbursts. Recent studies support the notion that family conflicts will likely increase when children reach early adolescence, even in well-functioning households (Baer, 1999). In the Richardson (1984) study, however, most youths continued to perceive their family environment as supportive and positive despite minor conflicts. A major limitation of this study concerns generalization because most adolescents were European-Americans from middle- to upper-class, two-parent families.

Another dynamic studied in relation to effective family functioning is resilience. Family resilience is the ability to overcome and recover from challenges with strength and adaptation (Walsh, 2003b). Families that are resilient and overcome crises and problems are flexible enough to allow change but stable enough to maintain clear parental authority, values, and dependability. Authoritative parenting, or strong and adaptable parenting, seems to define resilient relationships between European-American parents and children (Chao, 2001; Walsh, 2003b). Families involved in conflict and challenges should not be automatically considered dysfunctional because many other dynamics are involved in the strengths and weaknesses of a family environment (Baer, 1999; Richardson, Galambos, Schulenberg, & Petersen, 1984). To further examine the nature of family functioning, family dynamics should be examined in relation to family members' psychological functioning.

Burton and Jarrett (2000) reviewed research pertaining to family characteristics in urban neighborhoods. Research on ethnically and racially diverse neighborhoods were targeted to synthesize literature on resilient family factors that protect children from negative neighborhood influences and low socioeconomic statuses. Burton and Jarrett (2000) revealed several family processes that acted as protective factors for child and adolescent outcomes. Important characteristics included features of the parent(s) such as commitment to care and supervision of the child even in adolescence, structured roles and boundaries between a parent and child, positive opportunities for youths, and attention to the youth's morality. Supportive and proximal extended family networks also contributed to positive youth outcomes, as more adults were willing to help with

child care. Other family influences that promoted resilient youth functioning in urban neighborhoods included commitment to family well-being and flexibility.

Parents responsive to their child's needs are another healthy aspect of family environments (Bradley, Corwyn, Burchinal, McAdoo, & Coll, 2001). In a longitudinal study, higher levels of caregiver responsiveness related to better youth language skills and motor and social skill development among children aged 3-13 years. Home environments with more learning opportunities available (e.g., presence of books in household, reading time, trips to museums) were also related to better youth language and arithmetic skills. These findings applied to participants who were racially/ethnically diverse.

Although researchers struggle with forming a clear definition for what constitutes a healthy, normal family, many possible resilient factors exist. Healthy families do experience minor conflicts (Richardson et al., 1984). Even so, members within healthy families continue to report supportive, positive family environments. A major difference between healthy families and poorly functioning families is the ability to adapt to, and recover from, difficult circumstances and challenges while maintaining family unity (Burton & Jarrett, 2000; Walsh, 2003b).

While much homogeneity exists among healthy and well-functioning families, certain family patterns and dynamics are clearly dysfunctional. For example, violence within a home, such as child maltreatment or domestic violence is an attribute of pathology in the United States (Walsh, 2003a). Furthermore, families that have poor structure and boundaries and fail to negotiate problems on a consistent basis is an attribute of dysfunction (Beavers & Hampson, 2003; Mandara & Murray, 2002).

Dysfunctional Family Environments

The process of identifying normal and dysfunctional families often seems subjective and involves evaluation of many different variables. Certain parenting styles, however, such as rejecting-neglectful, are more prominent in dysfunctional families and often lead to poor child psychological development (Baumrind, 1991). Furthermore, authoritarian parenting styles may lead to moderate but not optimal youth functioning compared to authoritative parenting (Baumrind, 1991).

The Family Environment Scale (FES) is a scale designed to yield profiles of family characteristics (Moos, 1974; Moos & Moos, 1986). Tyerman and Humphrey (1981) used the FES to differentiate adolescents receiving psychiatric care from controls. Non-clinical adolescents perceived their family environments as lower in conflict and higher in cohesion, expressiveness, independence, and intellectual-cultural and recreational orientations compared to adolescent outpatients. However, authors did not explain the relationship between a youth's psychological functioning and family environment.

Glaser, Sayger, and Horne (1993) administered a version of the FES to families classified as functional, distressed, and abusive. Distressed families were those with a child with significant, clinical-level behavior problems. Maltreating families were those with substantiated cases of maltreatment between a parent and child. Functional families were those with no maltreatment and no child with behavioral problems. Distressed and maltreating families exhibited lower cohesion compared to functional families.

Maltreating families had higher conflict and lower expressiveness compared to other families (Glaser et al., 1993). Distressed families further exhibited low control compared to maltreating and functional families. The authors suggested that family environments

function on a continuum from healthy to dysfunctional. For example, distressed families were less healthy than functional families, but healthier than maltreating families.

Families experiencing key difficulties are distinct from healthy families (Glaser et al., 1993). Families who experience difficulty functioning in the presence of stressors often exhibit distinct clinical profiles compared to well-functioning families (Glaser et al., 1993; Tyerman & Humphrey, 1981). Furthermore, families perpetuating maltreatment or other types of violence among members demonstrate less supportive and cohesive family profiles compared to non-violent families (Davis & Graybill, 1983; Glaser et al., 1993). Overall, family functioning operates on a multi-dimensional continuum and involves several aspects of the family environment.

Beavers and Hampson (2003) posited that dysfunctional families lack parental cooperation in two-parent households or lack clarity in relationships, communication, or goals. These researchers also cite other features that characterize familial dysfunction, such as lack of individuality and families that foster children who are withdrawn (Beavers & Hampson, 2003). In the past, non-traditional families (e.g., single-parent families and diverse families) were considered dysfunctional because family norms were conceptualized according to Western, European-American values. As more empirical research is conducted on diverse family environments, however, many resilient factors are identified in these non-traditional families. The next section will summarize research concerning diverse family environments related to youth psychological functioning.

Ethnic and Racial Variations in Family Functioning

Much variation exists in the demographic composition of American families. With higher numbers of single, adoptive, and same-sex parents, as well as more ethnically and

racially diverse families, the view of the traditional European-American two-parent family is no longer applicable to many families. The view of the nuclear family has expanded to include more extended family members and community networks (McCreary & Dancy, 2004). Many factors may influence the family dynamics of non-traditional families, including sexual orientation, socioeconomic status, religion, and adoption (Walsh, 2003a). However, this particular paper will focus on culture, ethnicity, and race in relation to family environment.

Given that the ethnic and racial composition of America is changing, many researchers explore aspects of diverse families in America. Ethnicity consists of beliefs and traditions common to a group of individuals with similar heritage (McGoldrick, 2003). Many people who immigrate to America quickly adopt mainstream American values and reject some of their cultural traditions. However, certain cultural values remain with families after immigration and consequently transfer to later generation family members (Ying, Coombs, & Lee, 1999). Acculturative changes and ethnic identity affect family environments and contribute to ethnic differences among families. Definitions applicable to ethnic and racial variations in family functioning are provided in the next section.

Acculturation and Ethnic Identity

Ethnic-minority researchers have differentiated various terms associated with culture such as race, ethnicity, and culture. Race refers to genetic or phenotypic similarities among group members, whereas ethnicity refers to similarity in ancestry, family history, country-of-origin, or nationality (Murry, Smith, & Hill, 2001). Culture refers to one's values, viewpoints, and ways of perceiving experiences and behaviors in the environment

(Murry, Smith, & Hill, 2001; Phinney, 1996). Researchers categorize ethnicity and race as independent variables, with the assumption that differences relate to underlying cultural variations among groups.

Psychological researchers now realize that cultural factors influence the effectiveness of traditional assessment, treatment, and research practices. Most authors discussing child-rearing, trauma, or maltreatment with respect to ethnic and racial differences acknowledge that acculturative and ethnic identity factors can influence these practices (Zayas, 1992). Studies of acculturation and ethnic identity allow researchers to explore what cultural factors relate to individual presentations of psychopathology. However, researchers have not empirically examined these factors in relation to effects of trauma in youths. Similar to the concept of culture, many definitions exist regarding acculturation and ethnic identity.

Acculturation is the process of transforming one's native behaviors, cultural beliefs, traditions, and attitudes due to contact with, and influence of, a mainstream or host culture (Szapocznik, Scopetta, Kurtines, & Aranalde, 1978). Ethnic identity most commonly refers to self-identification in a certain ethnic group and degree of belongingness and pride a person has in a specific ethnic group (Cuellar, Nyberg, Maldonado, & Roberts, 1997; Phinney, 1990, 2003). Acculturation is a process that occurs over time and affects the cultural beliefs and traditions of individuals and groups (Szapocznik et al., 1978). The process of acculturation often depends on individual factors such as time of stay in host country, age, and gender. An acculturation-related study of Cuban-Americans revealed that more time spent in a host country related to more acculturation to the country's mainstream values and behaviors (Szapocznik et al.,

1978). Furthermore, young adults and adolescents seem to acculturate more rapidly than older adults.

Acculturative transitions may affect individuals and families who have migrated to a new country, but is best conceptualized as an interactive and multidimensional process influenced by many factors (Cuellar, Arnold, & Maldonado, 1995; Trimble, 2003). Acculturation to a host country can range from overt changes, such as speaking primarily in the host country language instead of one's native language, to more subtle changes in value orientations, such as adhering less to traditional cultural values (Szapocznik et al., 1978). For example, a Chinese-American adolescent may begin to seek more independence from family members despite parental objections.

Cuellar and colleagues (1995) conceptualized acculturation as changes from native values and behaviors to more mainstream values and behaviors. The process of acculturation appears to occur on three different levels, a *behavioral level*, an *affective level*, and a *cognitive level*. The behavioral level of acculturation refers to changes in a person's language and preferences for items such as music and food. The affective level of acculturation refers to ways of interpreting emotions and attitudes. The cognitive level of acculturation refers to attitudes toward gender roles and other core opinions and values.

Ethnic identity is a construct that interacts with acculturation and is often subsumed under acculturation (Phinney, 2003). Ethnic identity is the inherent sense of belonging to a specific ethnic group and level of association with an ethnic group's shared phenotype, values, religion, country-of-origin, or language (Cuellar et al., 1997; Phinney, 1990, 2003). One's ethnic identity is not fixed and can change over time, and is the degree to

which an individual shares attitudes and behaviors of their ethnic group. Ethnic identity also refers to an individual's personal understanding and conceptualization of ethnic group values and participation in ethnic-related activities. Phenotypic factors can influence ethnic identity. In the Latino community, salient differences in conceptualizations of darker-skinned and lighter-skinned Hispanics occur, with lighter-skinned Hispanics categorized more positively than darker-skinned Hispanics (Arredondo & Perez, 2003).

Acculturation and ethnic identity interrelate and researchers often conceptualize these terms interchangeably (Phinney, 2003). Indeed, ethnic identity is a component of acculturation. For example, ethnic identity relates to acculturative changes within an individual. Specifically, acculturative stress (e.g., family turmoil related to acculturation) is more likely to affect first-generation or immigrant families, whereas conflicts in developing one's ethnic identity are more likely to effect ethnic minority individuals born in the United States (Roysircar, 2003). Acculturative group changes do have an effect on ethnic identity. For instance, ethnic self-labels, or how individuals label themselves based on ethnicity, often change over generations. The examination of generational changes associated with acculturation occurs with ethnic identity facets such as degree to which individuals endorse ethnic behaviors or values. Ethnic identity also may act independently of acculturation, as when individuals integrated into mainstream practices still maintain strong ties to ethnic values and traditions.

Cuellar and colleagues (1997) examined the relationship between ethnic identity and acculturation among predominantly Mexican-American college students. As expected, higher levels of acculturation to the host culture related to lower ethnic identity scores.

European-American-oriented Mexican-Americans had the lowest ethnic identity scores compared to more Hispanic-oriented Mexican-American students.

Complex analyses revealed more in-depth relationships within Mexican-American students. For example, generational status used as an indicator of acculturation, did not fully explain factors involved in acculturation (Cuellar et al., 1997). Variations in levels of acculturation emerged. Individuals with mid-level acculturation scores were more open to other ethnic group influences than low-acculturated individuals and high-acculturated individuals. Furthermore, individuals considered bicultural, or those endorsing Mexican and European-American orientations, were open to other ethnic group influences but also had high levels of ethnic identity.

Acculturation relates to ethnic identity but this may not be a linear relationship (Cuellar et al., 1997). Acculturation involves a combination of individual factors such as generational status and behavioral orientation to traditional or mainstream traditions. Unfortunately, the sample consisted of college students of varying ages and did not provide a concise picture of how ethnic identity is influenced in adolescents.

The development of one's ethnic identity in adolescence may also bring conflict within a family (Szapocznik et al., 1978). Cuban immigrants attending family therapy sometimes report acculturative stress because an adolescent acculturated at a faster rate than other family members. The adolescent is often trying to form an ethnic identity based on attitudes different from the family's traditional culture. Parents may experience distress and frustration as adolescents separate from a family.

Many researchers posit that ethnic identity is increasingly solidified during adolescence (Umana-Taylor, Bhanot, & Shin, 2006). Umana-Taylor and colleagues

examined ethnic identity development in relation to several contextual variables in a United States sample of Chinese, Vietnamese, Filipino, Asian-Indian, and Salvadoran adolescents. Specifically, families attempting to socialize their children with cultural traditions demonstrated stronger ethnic identity development for all adolescent ethnic groups. Although the development of ethnic identity in adolescence may bring initial familial conflict, the ultimate formation of a healthy ethnic identity is heavily dependent on family influences. Family socialization practices likely depend on cultural traditions of that particular ethnic/racial group. Consequently, the next section will explore research findings concerning the influence of ethnic/racial variations in family functioning and acculturation and ethnic identity in diverse families.

Acculturation, Ethnic Identity, and Family Functioning

African-Americans: Family Functioning and Ethnic Identity

African-American family functioning. African-American families historically have faced racism and prejudice from mainstream American society. Despite this and other historical challenges, researchers document many resilient aspects of current and traditional African-American families. The following descriptions of African-American families do not encompass all African-American families because many within-group differences exist. However, certain attributes consistently associate with African-American families (Boyd-Franklin, 2003; McCubbin, Thompson, Thompson, & Furrell, 1998).

Past literature erroneously equated family functioning of African-American families to European-American nuclear families (Boyd-Franklin, 2003). Many similarities to European-American families and unique strengths are associated with aspects of African-

American family life. For example, African-American families may differ more in composition compared to European-American families, as outlined in the following paragraphs (Boyd-Franklin, 2003; Chatters, Taylor, & Jayakody, 1994; McCreary & Dancy, 2004; Taylor Gibbs, 2003).

Many forms of African-American families exist. Some are headed by a female single parent, some consist of augmented families or families in which a child is raised in a house without biological parents, and some contain extended and non-blood relatives (Boyd-Franklin, 2003; Chatters et al., 1994; McCreary & Dancy, 2004; Taylor Gibbs, 2003). Many but not all African-American families also report strong kin networks or social and economic support networks that consist of extended family members, clergy members, and fictive kin, or individuals who are non-blood family members (Chatters et al., 1994; Taylor, 1996; Taylor, Casten, & Flickinger, 1993). In such extended family networks, reciprocity may be apparent in which members rely on each other for economic and social support via exchange and sharing. In the case of a family headed by a single mother, male role models for children may consist of non-paternal males within the network (Ho, 1992; McCreary & Dancy, 2004).

The value of reciprocity and cooperation is common in many African-American communities and is sometimes a survival skill (Bagley & Carroll, 1998; Boyd-Franklin, 2003). McCreary and Dancy (2004) illustrated this concept in a qualitative examination of African-American families. Mothers and family members defined healthy and unhealthy family functioning (McCreary & Dancy, 2004). Mothers named many extended family members in their definition of family. Most single parents, however, did not name their child's father in definitions of family. Family members helped each

other emotionally and with resources. Effective families were networks that communicated, were affectionate with each other, and spent time with each other. Ineffective families failed to engage in proper childcare or supervision, fostered violence within the home, did not help each other emotionally, or did not provide economic or other support.

Extended family support or kinship support was further examined among African-American adolescents (Taylor et al., 1993). Kinship support was defined by adolescent perception of several factors such as number of extended family members living nearby and frequency and degree of social and emotional support these individuals offered. Level of kinship support in two-parent households did not affect adolescents. Adolescents in single-parent homes tended to report more extended family members living nearby compared to adolescents in two-parent homes. More kinship support related to less problem behavior and more self-reliance in adolescents from single-parent homes compared to adolescents in two-parent households.

For adolescents in single-parent households, authoritative parenting practices related to positive levels of youth self-reliance and less problem behaviors (Taylor et al., 1993). Examination of the relationship among the kinship support, authoritative parenting, and functioning variables revealed a more complex relationship. For adolescents in single-parent households, authoritative parenting mediated kinship support, self-reliance, and problem behavior. The authors speculated that, with kinship support, single parents are more able to use authoritative parenting practices with their children. Further, such balanced, warm, and encouraging parenting practices influence the development of healthy adolescent psychological functioning.

Taylor also reported similar findings in a 1996 study. Kinship support allowed parents to institute more family routines and involvement, which contributed to healthier adolescent functioning. Healthy adolescent functioning was increased autonomy, less problem behavior, less depression, higher GPA, and more school involvement. Further, less kin support contributed to higher levels of adolescent depressive symptoms.

Family factors related to African-American youth functioning. Specific parenting practices and kinship support may contribute to healthy youth psychological functioning (Taylor, 1996; Taylor et al., 1993). Many other aspects of family functioning in African-American families can also serve as risk or resilient factors for child development (Howard et al., 2002). Among African-American adolescents, Howard and colleagues (2002) reported that those who perceived their families as lacking healthy communication skills reported more distress from witnessing violence compared to adolescents in families with healthier communication patterns. Further, when African-American pre-adolescents experience permissive child-parent boundaries and perceive higher levels of conflict with parental figures and less parental monitoring, their symptoms of depression may increase (Sagrestano, Paikoff, Fendrick, & Holmbeck, 2003). Additional research studies should identify family factors that can aid optimal development in African-American youths.

Researchers in rural Georgia recruited African-American single mothers with at least one 6-9-year-old child (Brody & Flor, 1997). Mothers reported on family factors, self-esteem, and depression. Furthermore, researchers observed family activities and interviewed teachers about child functioning. More structured family routines and healthy mother-child relationships predicted healthy child functioning. When a child was

functioning in a healthy manner, as evidenced by good emotional self-control, he was also more likely to exhibit academic success and less psychological symptoms. Furthermore, the role of structured family routines strongly related to healthy child functioning in male children than female children.

Brody and Flor (1997) also reported that other family variables, such as finances, indirectly related to family functioning. Greater financial resources related to healthier maternal psychological functioning in terms of self-esteem and depression. Maternal self-esteem, but not depression, consequently mediated the relationship between finances and family processes.

Brody and Flor (1997) demonstrated that poverty-stricken, African-American families foster resilient children and healthy child academic and psychological functioning. However, financial resources can indirectly impact family processes because finances can influence maternal psychological functioning. The findings of this study provide insight into the process of developing resiliency in African-American families. However, the sample consisted of rural African-American families and included children aged 6-9 years, which may not generalize to urban African-American families or adolescents. The current study also failed to examine the influence of parenting styles in relation to youth functioning.

Murry and colleagues (2001) suggested that effective African-American parenting styles may slightly differ from non-African-American parenting styles. Murry and colleagues (2001) noted that child-rearing approaches employing high levels of warmth, maternal support, and control may contribute to the most positive youth functioning in African-American families. The researchers conveyed that African-American parents

might feel more pressure to employ greater control in parenting styles to protect children from the negative influences of neighborhood or community threats.

Ball, Armistead, and Austin (2003) examined African-American, female adolescents in urban neighborhoods to examine the influence of religiosity on psychological functioning. Religiosity was defined by how often an adolescent and adolescents' family attended church activities and endorsed dedication to religious beliefs and practices. Religiosity did seem to promote resiliency in the general psychological functioning of the adolescents. Lower self-esteem occurred in youths who were indecisive about their religiosity and who reported either "never" attending church or attending church "nearly every day."

Well-functioning African-American females were more likely to attend church services a few times a month and be in moderately religious families (Ball et al., 2003). Most of the sample reported religion to be an important influence in their lives. The researchers demonstrated that moderate levels of familial and self-religiosity seem to optimally promote resiliency in African-American adolescents. Conversely, indecisiveness concerning one's beliefs may be a risk factor for negative psychological functioning. Unfortunately, the researchers did not examine overall family functioning, which also can strongly influence youth psychological functioning.

Employing a longitudinal design, Kim and Brody (2005) examined single parent, African-American families. Families consisted of single mothers in rural Georgia with 11-year-old male or female children. Eighty-three percent of children and mothers remained in the study for four waves. Data collection conducted at year one was "wave one" and data collection conducted at the end of the fourth year was "wave five."

Kim and Brody (2005) utilized structural equation modeling to deconstruct the relationship among family and youth outcome variables across the five years (wave one to wave five). Maternal well-being at wave two predicted competent parenting practices at wave three. Wave three parenting practices predicted wave four child outcomes with respect to youth self-regulation. In conclusion, the researchers linked youth self-regulation at wave four to youth psychological functioning at wave five.

Brody and Kim (2005) demonstrated that more supportive, involved, and less conflicting parenting practices related to healthier youth self-regulation. Over time, such parenting practices related to lower levels of youth internalizing and externalizing problems. Lower family resources and income levels were also threats to youth well-being. The researchers supported the notion that parent functioning and other family factors can serve as risk or resilience factors in a child's development. The results of this study may apply to children who are not rural African-American children. However, the researchers did not include youths from other races or ethnicities, so generalization of the findings is limited.

Brody and Kim (2005) reported that lower financial resources and lack of adequate resources may relate to youth functioning. Several researchers have more specifically sought to examine the relationship among SES levels and deteriorating neighborhoods and African-American family and youth functioning (Abell, Clawson, Washington, Bost, & Vaughn, 1996; Brody, Flor, & Gibson, 1999; Gutman, McLoyd, & Tokoyawa, 2005; Kelley, Power, & Wimbush, 1992; Klein & Forehand, 2000; Mandara & Murray, 2000; Taylor, 2000). Low SES and living in a deteriorating neighborhood may not necessarily relate to negative youth functioning or dysfunctional parenting practices (Abell et al.,

1996; Taylor, 2000). Such apparently difficult conditions may actually breed resilience as parents modify parenting practices to protect their child from these risks. For example, Taylor (2000) reported that African-American mothers in deteriorating neighborhoods employed stricter and more controlling disciplinary practices compared to African-American mothers in safer neighborhoods. Even so, adolescents in deteriorating neighborhoods reported lower levels of self-esteem compared to adolescents in less deteriorating neighborhoods.

Among African-American adolescents, higher levels of anxiety and depression were related to more family financial strain (Gutman et al., 2005). Specifically, when parents became distressed because of financial strain or neighborhood deterioration, their relationship with the adolescent also became strained. Furthermore, more parent and adolescent conflict related to higher levels of adolescent anxiety and depression. The authors noted that the relationship among neighborhood and income factors and youth functioning may be mediated by other family variables such as parental psychological functioning. The inclusion of other mediators in this relationship, such as kinship support, would strengthen the model.

Risk and familial factors related to child functioning were examined among African-American mothers and children aged 6-12 years (Klein & Forehand, 2000). Cumulative risk factors directly and indirectly related to poor child psychological functioning. More exposure to cumulative risk factors (e.g., stress, low SES, high maternal stress, maternal HIV, etc.) contributed to higher levels of child depression and externalizing behaviors. Less parental monitoring also contributed to more child depressive symptoms and risk for poor child psychological development. However, when mothers were supportive and

reported more parental monitoring, children reported less anxiety and depression. Klein and colleagues (2000) measured many potential stressors and provided an accurate view concerning the influence of risk on child psychological functioning. Unfortunately, the generalizability of the findings to all African-American families may be limited because one-third of mothers had HIV.

Summary of African-American family functioning. The composition and values of some African-American families may differ from the traditional American nuclear family. However, many dynamics (Walsh, 2003a, Walsh, 2003b) that comprise healthy European-American and African-American family environments include flexibility within the family, cohesion, and adaptability (Boyd-Franklin, 2003; Compton et al., 2005). Family social support, kinship support, maternal well-being, cohesiveness, and religiosity are implicated as protective factors in the psychological development of African-American adolescents (Ball et al., 2003; Brody & Kim, 2005; Compton et al., 2005; Kim & Brody, 2005; Taylor et al., 1993).

Many African-American parents are concerned with helping their children become resilient against deteriorating neighborhoods, racism, and discrimination (Boyd-Franklin, 2003; Taylor, 2000). Unfortunately, poverty and low-income status affect some African-American families (Abell et al., 1996). The relationship between low SES levels as risk factors and child development is still not fully clear.

Some researchers have cited low financial resources and poor living conditions as negatively affecting African-American youths (Brody & Kim, 2005; Gibbs, 1986). Other researchers have reported that poverty may influence parenting styles (Abell, et al., 1996). African-American parenting practices and beliefs do seem influenced by

neighborhood and SES contexts (Brody et al., 1999; Taylor, 2000). For example, as environmental or neighborhood risks increase, parents, particularly African-American mothers, may increase their use of controlling and strict disciplinary methods (Taylor, 2000). Some African-American families also may develop resilient characteristics to deter poverty from negatively affecting functioning (Abell et al., 1996).

In addition to family functioning and parenting practices, another variable possibly related to adolescent functioning is ethnic identity. Well-functioning families promote the development of a healthier African-American ethnic identity compared to more conflictive families (Mandara & Murray, 2002). The next section will explore the role of ethnic identity in relation to youth functioning.

African-American ethnic identity. Although African-Americans do not have a recent history of immigration to the United States, many African-American individuals continue to practice specific cultural traditions that differ from European-Americans (Phinney & Onwughalu, 1996). African-American parents attempt to socialize their children with culturally-based lessons to help children develop a healthy ethnic identity. Some researchers state that, although African-American parents believe ethnic socialization is important, similar to European-Americans, they emphasize education, self-esteem, and religiosity (Marshall, 1995). However, Marshall also noted that children with parents who specifically teach about racial issues may more quickly develop a healthy ethnic identity. Marshall examined ethnic socialization and identity development in middle income, African-American mothers and their children. African-American children were attending elementary schools in predominately European-American areas.

Mandara and Murray (2002) examined African-American family functioning and familial emphasis on African-American cultural values. The authors reported that "defensive-neglectful" or chaotic families that had mostly single, low SES mothers contributed poorly to adolescent functioning. The family style that facilitated healthy but not optimal child functioning was a "Conflictive-Authoritarian" style where families valued achievement but were more conflicting and controlling and less expressive compared to other family types. The healthiest African-American families demonstrated a "Cohesive-Authoritative" style in which families fostered cohesion, expressiveness, and low conflict within the home and emphasized African-American cultural values. The well-functioning families placed great importance on developing healthy African-American ethnic identities and this contributed to youth behavior and self-esteem. Many traits such as cohesion, expressiveness, and low conflict are characteristics that define healthy family environments across the literature and not only in African-American families.

Phinney and Onwughalu (1996) specifically examined ethnic identity in relation to psychological functioning among African-American and African college students. Higher levels of ethnic identity in African-American students predicted higher levels of self-esteem. For African students, higher ethnic identity related to longer residency in the United States. The authors posited that levels of ethnic identity increased with more time spent in the United States for African students, due to the more salient role race plays in the United States compared to their home countries.

Ethnic identity may influence some aspects of psychological functioning. However, Phinney and Onwughalu (1996) found ethnic identity to be unrelated to college grades.

Kaslow and colleagues (2004) also examined the influence of ethnic identity among low-income African-American adults. One limitation of this study is that the recruitment occurred at a public hospital where adults were seeking medical or psychiatric care. However, a major goal of the study was to examine suicidal behaviors. Specifically, individuals who attempted suicide reported lower levels of ethnic identity development and feelings of congruence with their ethnic group compared to individuals who did not have a history of suicidal behaviors. In addition to feeling distant from their own ethnic group, people who engaged in suicidal behaviors also felt more incongruent with other ethnic groups.

Youth psychological functioning in adolescence may be affected by level of ethnic belongingness, as adolescents may still be developing their ethnic identities. Brook and colleagues (1998) specifically examined the role ethnic identity serves in adolescent substance use among African-Americans aged 16-25 years. The authors reported that multiple factors such as risk-taking personalities, conflicted family relationships, deviant peers, and some aspects of ethnic identity contributed to substance abuse. Higher levels of pride in one's ethnic group, knowledge of ethnic practices, and identification with one's ethnic group directly led to more resilience in peer, family, and personality functioning domains, which related to lower substance use. Adolescent functioning can be due to many personal and contextual variables. However, healthy ethnic identity may serve as a particularly salient protective factor against adolescent substance use in an indirect fashion.

Over a two-year period, middle-school aged African-American adolescents participated in a study of ethnic identity and discrimination (Wong, Eccles, & Sameroff,

2003). Higher levels of ethnic identity were associated with more positive school achievement, resiliency, and prosocial peers. As expected, more perceived discrimination contributed to higher levels of negative developmental outcomes concerning resiliency, peer relationships, and school. Ethnic identity and perceived discrimination also influenced African-American adolescent psychological outcome.

Specifically, higher levels of ethnic identity influenced the relationship between perceived discrimination and psychological outcome (Wong et al., 2003). Youths who endorsed high levels of ethnic identity reported less negative effects in psychological development associated with perceived discrimination. High identification with one's racial group seemed to protect youths from experiencing potential deleterious psychological effects related to discrimination. The findings supported the role of ethnic identity as a protective factor against discrimination in African-American youths. Similar studies with youths from other racial/ethnic backgrounds should explore whether these findings more strongly apply to African-Americans or other groups.

Caldwell and colleagues (2002) recruited ninth-grade African-American students at risk for academic problems. The authors collected data on student functioning for four years. By investigating maternal support, psychological distress, and racial identity in a structural equation model, the authors specifically outlined the relationship among each variable. Stronger perceived maternal support related to higher levels of racial identity. More maternal support, more positive attitudes toward one's racial group, and less identification with one's racial group were related to less psychological stress.

The authors posited that racial identity is a complex variable (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002). Viewing one's racial group as more positive may help

an adolescent cope with difficult situations. However, adolescents who strongly believe that they are a member of an ethnic minority group may be vulnerable to perceiving events as discriminating. The authors contended that future studies should better examine the complex nature of ethnic identity in relation to psychological well-being.

Sellers and colleagues (2006) examined ethnic identity in relation to discrimination and mental health among ninth-grade African-American students who were performing poorly academically. Youths were followed until they were approximately 20 years old. Youths who believed their race to be a major part of their self-identity (termed racial centrality) reported less psychological distress in relation to discrimination compared to youths who self-identified less with their race.

Furthermore, perceptions of how one's racial group is viewed by other people did not influence mental health (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2006). However, higher levels of racial centrality may also influence one's perceptions. Individuals with the highest endorsement of racial centrality also perceived the highest levels of discrimination based on race. The authors speculated that racial centrality may serve as a protective, resilient variable in the relationship between discrimination and mental health outcomes. Similar studies should explore how racial centrality or ethnic identity influences the relationship between maltreatment and PTSD symptoms.

Summary of African-American family functioning and ethnic identity. Compared to European-American parents, African-American parents may have to employ firmer parenting practices due to unique risks some African-American children are likely to encounter, such as discrimination, poverty, or neighborhood violence (Gorman-Smith et al., 1996; Murry et al., 2001). African-American mothers in particular seem to modify

parenting practices in relation to their neighborhood (Taylor, 2000). Such parenting practices influence youth psychological development. African-American children who may be at risk for developing psychological issues because of a low-income or single-parent family are still able to develop in a positive fashion when caregivers receive kinship support, employ strong parenting practices, and maintain structured routines in the home (Brody & Flor, 1997; Brody & Kim, 2005; Murry et al., 2001; Taylor et al., 1993). Families that encourage moderate religious participation in youths may also contribute to positive psychological development in African-American adolescents (Ball et al., 2003).

Ethnic identity or racial centrality may also contribute to positive psychological functioning in certain situations (Caldwell et al., 2002; Sellers et al., 2006; Caldwell et al., 2006; Wong et al., 2003). However, the relationship between ethnic identity and psychological well-being appears to be complex and not straightforward. Even so, some researchers have examined the possible protective nature of ethnic identity in African-Americans. More studies have examined ethnic identity in African-Americans compared to other racial/ethnic groups. Advanced statistical models such as structural equation modeling should further examine this potentially complex relationship (Sellers et al., 2006).

The literature on African-American families indicates that, while certain cultural distinctions define many African-American families, healthy family functioning is sometimes similar across cultures. A major limitation of many empirical articles on African-American family functioning concerns the samples recruited (Murry, Bynum, Brody, Willert, & Stephens, 2001). Many African-American families are headed by

single mothers, however, a significant percentage of African-American families consist of dual-parent families that are not always included (Brody & Flor, 1997; Kim & Brody, 2005).

Multiple factors influence family dynamics, such as family composition. Consequently, the paucity of research involving dual-parent African-American families presents a major deficit in the literature concerning African-American families. This variability results in many within-group differences and cultural variations among families. At times, the dynamics of an African-American family may more relate to contextual factors than cultural values. Family functioning seems to interact with multiple socioeconomic, social, and historical factors and varies within groups.

Asian-Americans: Family Functioning and Ethnic Identity

Asian-American family functioning. Asian-Americans are not a homogeneous group. Rather, many subcategories of Asian groups exist in the United States, including Chinese-Americans, Filipino-Americans, Japanese-Americans, Vietnamese-Americans, and others. Many of these groups view the family in terms that differ from Western mores (Fuligni, Tseng, & Lam, 1999; McGoldrick, 2003). Many differences are inherent among various Asian-American subgroups, depending on socioeconomic status, immigration history, generational status, and acculturation (Ho, 1992; Pimental, 2002).

Many factors influence the values and dynamics of Asian-American families. Across subgroups, however, certain values seem to be important in many Asian-American individuals and families. Asian-Americans incorporate several culture-based values into family life such as shame, filial pity, self-control, and concern for family over oneself (Ho, 1992; Huang, Ying, & Arganza, 2003). *Filial pity* involves responsibility to and

respect for one's ancestors and parents above personal needs and desires (Ho, 1992; Ying, Coombs, & Lee, 1999). Asian-American refugee parents may also be more likely to discourage the expression of emotions and outright affection within families compared to European-American parents (Nguyen & Williams, 1989).

As noted earlier, authoritative parenting may lead to positive youth outcomes in families (Walsh, 2003b). Asian-American families may rely more often on authoritarian parenting compared to European-American families (Chao, 1994; 2001). For example, Chinese-American mothers reported more parental control and authoritarian parenting strategies compared to European-American mothers, even after controlling for education (Chao, 1994). Furthermore, both groups of mothers reported similar income levels. Chinese-American mothers also endorsed more instances of maintaining close physical proximity with their child and of being the sole caretaker.

Authoritative parenting styles may not be a salient protective factor for Asian-American adolescents (Chao, 2001). Chao demonstrated that authoritative parenting styles more strongly predicted positive school achievement in European-Americans than Chinese-Americans. In contrast to European-American adolescents, school success in first-generation and second-generation Chinese-American adolescents related to authoritative and authoritarian or stricter parenting. Furthermore, Chinese-American youths reported higher rates of authoritarian parenting than authoritative parenting styles compared to European-American youths.

Chao (2001) demonstrated that authoritarian parenting styles may lead to more positive youth outcomes in Chinese-American youths compared to European-American youths. Child-parent closeness mediated the relationship between authoritative parenting

and school success for European-American, but not Chinese-American youths. Exploring other variables as potential mediators may further explain the relationship between school achievement and parenting styles in Chinese-American youths. For example, other researchers have shown Asian-American parents to be more demanding of higher achievement in school and that Asian-American adolescents participate in more non-school educational activities than parents and children of other racial/ethnic groups (Peng & Wright, 1994). However, Asian-American children were more likely to come from two-parent families with higher educational levels than parents from other ethnic/racial groups. Future studies should also examine how such culturally-specific parenting styles influence other factors of child development.

Asian-American young adults have reported that familial conflict may relate to differences between Western and Eastern cultural values. For example, in a study of Hispanic-American, European-American, and Asian-American college students, Asian-Americans reported the highest levels of intergenerational family conflict (Lee & Liu, 2001). However, family conflict does not necessarily mean that Asian-American youths reject Eastern cultural values. Among Asian-American adolescents, for example, slight variations in endorsement of Eastern and Western value orientations have been observed. However, the majority of adolescents still express importance of family respect and obligation as well as deference toward elders (Ying et al., 1999).

Similar to African-American families, Asian-American families often have extended family networks that consist of multigenerational family members (Boyd-Franklin, 2003; Ho, 1992; Taylor Gibbs, 2003). Unlike many African-American families, however, Asian-American families are often more structured in parental and gender-based roles

(Ho, 1992; Kim, Bean, & Harper, 2004; Shek, 2002). For example, compared to other cultures, Asian-American children and adolescents expect to behave more respectfully toward parents and other relatives and refrain from questioning authority figures.

Shek (1995; 2000; 2001) gathered a large amount of data on family functioning among Chinese families living in Hong Kong. Shek (2001) empirically tested factors relating to healthy family environments in two-parent Chinese families with at least one adolescent child. Adolescents and parents endorsed several themes relating to a happy family, such as avoiding conflict and maintaining harmony within the family. Family togetherness was also an important family attribute. However, Shek's (2001) findings may not fully generalize to Chinese families living in the United States.

Shek (2002) also examined parent-adolescent conflict in non-clinical Chinese families in Hong Kong. Shek (2002) noted that parent-adolescent conflict at year one influenced mothers and fathers to engage in different parenting styles at year two. After conflict, Chinese fathers were less concerned toward adolescents and treated them harshly. As a result of conflict, Chinese mothers altered parenting styles by monitoring adolescents more but, unlike fathers, did not act less warm toward the youth. Furthermore, Chinese female adolescents became more conflictual with parents after negative changes in parenting styles compared to male adolescents.

Shek (2002) interpreted the study findings in view of traditional Chinese family values, where females emotionally tie more to family relations. Unfortunately, Shek did not examine non-Chinese families to confirm his interpretations. Shek's findings parallel other reports indicating that Asian-American male adults are often treated with dignity and seem detached toward other family members (Ho, 1992; Kim et al., 2004; Shek,

1995). Furthermore, mothers in Asian-American households are often the parent who is physically and emotionally available for the children.

In a related study examining low-income Chinese families, Shek (2005a) also reported gender differences in Chinese adolescents related to family functioning. Overall, more perceived negative family functioning related to more youth general psychological problems. Conversely, positive family environments related to healthy adolescent psychological functioning. More specific analyses indicated that negative family functioning predicted more psychological problems in female adolescents over time. The latter finding was not evident in male adolescents. Shek suggested that Chinese females may be more at risk for psychological problems from negative family factors because daughters are more emotionally bound to the family than sons. However, authors did not examine the specific Chinese family attributes that led to positive or negative family functioning.

Shek (1995, 2000, 2001, 2005a, 2005b, 2006) provided an immense amount of information concerning the Chinese family and Chinese adolescent well-being. Unfortunately, whether Shek's findings generalize to Chinese-American families is unknown. Handal and colleagues (1999) examined family functioning related to adolescent psychological well-being among American-born Asian-Americans and immigrant Asian-American adolescents. The adolescents reported their ethnicities as Chinese, Vietnamese, Filipino, Japanese, and Korean. Unfortunately, authors only collected adolescent self-reports. Parental self-reports of family environment would have strengthened the study design.

Asian-Americans born in the United States reported higher levels of family independence and achievement compared to emigrated Asian-American adolescents (Handal, Stiebel, DiCarlo, & Gutzwiller, 1999). Furthermore, emigrated Asian-American adolescents reported higher levels of family organization than United States-born Asian-Americans. When examining psychological well-being, emigrated Asian-Americans reported a higher level of problems than American-born adolescents. However, this result may be explained by difficulty adjusting to a new country, as better psychological functioning was reported by immigrated adolescents who had spent the longest time in the United States compared to recently emigrated Asian-Americans. However, endorsement of traditional Asian family values may not depend on length of time in the United States. Reports of perceived family environment did not differ among emigrated Asian-American adolescents according to time in the United States.

This study strengthened the literature base on Asian-American families by providing information on how family functioning may differ according to immigration status (Handal et al., 1999). Unfortunately, large differences were apparent between income levels of the emigrated and non-emigrated families, which may have impacted the results. However, Handal and colleagues (1999) reported that neither family income nor parental/maternal education levels related to adolescent well-being. Furthermore, psychological well-being was measured using a 22-item scale that may not have been sensitive enough to detect specific psychological ailments differentiating the two groups of adolescents.

Particular considerations arise when working with or assessing Asian-American families. Shek (1995) reported that traditional, culturally-based parenting styles are still

apparent in China, regardless of socioeconomic status. However, Shek (2005) also reported that Chinese fathers at lower SES levels exhibited more negative relationships with their children than parents at higher SES levels. Many theorists posit that endorsement of traditional cultural values may slightly differ depending upon income levels, generational status, and the Asian-American subgroup or identified ethnicity of the family (Pimentel, 2006). Pimental (2006) noted that, in China, attitudes toward gender equality and husband and wife responsibilities depend somewhat on generational status. More specific differences are seen among Asian-Americans in the United States, where recent older immigrants may still speak in their native language whereas younger generations may quickly learn English (Lee, 1990). When children learn English more quickly than parents, conflict may arise within a family as traditional parental authority may be undermined.

Fuligni, Tseng, and Lam (1999) found Asian-American adolescents to retain some traditional cultural values despite generational status. The authors examined family obligations among Asian-American subgroups (Filipino and Chinese), Latin-American subgroups (Mexican, South-American, and Central-American), and European-American adolescents. Authors reported large differences in endorsements of family values among European-American and other youths. Compared to European-American adolescents, Latin-American and Asian-American youths demonstrated more family respect and obligation to take care of family members in the future. Furthermore, Filipino-American youths tended to strongly value familial respect more so than Chinese-American and Mexican-American youths. Asian-American youths also reported more obligations regarding family time and helping families compared to European-American youths.

Interestingly, these family obligation beliefs were not associated with generational status, socioeconomic status, or marital status (Fuligni et al., 1999). Concerning perceived parent-youth generational differences, most youths stressed they did not value family obligation and respect as much as their parents. European-Americans also reported more disagreement with parents over the issue of family respect compared to Filipino-Americans.

The researchers examined the relationship among endorsement of traditional cultural values, adolescent peer development, and family relationships (Fuligni et al., 1999). Although large differences among groups were found in values, fewer differences were noted concerning the effect of such values on youth development. Adolescents who endorsed stronger attitudes of family obligation reported happier family relationships, more academic motivation, and similar levels of peer involvement compared to youths who valued obligation toward the family at lower levels. Youths who valued family respect less than parents reported some difficulties, such as more distant adolescent-mother relationships and lower levels of peer social involvement compared to other youths.

Even after controlling for socioeconomic status, youths who reported strongest attitudes toward currently helping one's family earned the lowest academic grades (Fuligni et al., 1999). The authors stressed that the latter finding was not explained by any other variables studied. However, they speculated that youths who perceive high familial need (e.g., when a parent is sick or incompetent) may give up study time to attend to more urgent family issues. The Fuligni and colleagues (1999) study was a

comprehensive study that allowed researchers to learn more about cultural values surrounding the family of diverse youths.

Asian-American families may experience intra-familial conflict possibly associated with financial issues and acculturative changes (Lee, 1990; Shek, 2005). Asian-American families may also experience intra-familial conflict related to culturally related issues such as migration experiences. Asian-Americans who came to America as refugees may have experienced trauma or loss in their home country, which may affect their mental health and family functioning (Lee, 1990). Unfortunately, some Asian families move to a new country abruptly or forcibly when conflict or war occurs in their native country (Rousseau, Drapeau, & Corin, 1997).

Southeast-Asian and Central-American refugee families and children aged 8-12 years living in Canada were examined with respect to family separations and family functioning (Rousseau, Drapeau, & Corin, 1997). Both groups of families reported several experiences of trauma such as torture, refugee camps, and difficulties crossing the border. Approximately half of Southeast-Asian families reported child-caretaker separations. Southeast-Asian families appeared to be more cohesive and relied more on intermediate family members for support compared to Central-American families. Central-American families reported reliance on familial support and support from religious and political groups. Compared to Central-Americans, Southeast-Asian families actually experienced less familial conflict when they did not have to rely on or interact with such community networks. These reports suggest that Southeast-Asian families may view extended social support networks as burdensome.

The importance of recognizing possible differences among Asian-American subgroups should be considered when assessing or treating an Asian-American family. Among Chinese-Americans and Korean-Americans, for example, communication styles may be more subtle and less confrontational among family members compared to other Asian-American ethnic groups (Huang, Ying, & Arganza, 2003; Kim, Bean, Harper, 2004). Subtle, non-direct communication styles among family members differ from more direct and confrontational communication patterns in African-American families (Taylor Gibbs, 2003). As a group, Filipino-Americans are quite diverse due to historical and current events, with Filipino cultural values shaped by Chinese, American, and Spanish ideals (Agbayani-Siewert & Enrile, 2003). Furthermore, level of acculturation and migrant history influences the cultural values of many Asian-American families, resulting in a substantial within-group variation. Any examination of Asian-American families and youth functioning should consider the role of ethnic identity.

Asian-American ethnic identity. Many Asian-American families undergo processes of acculturation or assimilation because large numbers have emigrated to the United States (Heras & Revilla, 1994). Heras and Revilla (1994) studied first-generation and second-generation Filipino-American college students aged 18-24 years and their mothers. The generational status of the students indicated recent familial emigration to the United States. Results also indicated that acculturation levels of the college students related to mothers' reports of family satisfaction.

Mothers reported higher levels of family well-being when sons or daughters were less acculturated (Heras & Revilla, 1994). Furthermore, second-generation students reported lower family well-being, self-esteem, and less stable identities compared to

first-generation students. When youths acculturate at a faster rate than other family members, the family as a whole may face difficulties. By experiencing this familial dissatisfaction, young people may also experience more psychological difficulties compared to youths who acculturate similar to other family members. However, this study lacked sophisticated statistical analyses and no differentiation was made of the effects of family satisfaction and acculturation on son and daughter adjustment.

Heras and Revilla (1994) indicated that generational level or acculturative differences between young people and their family may foster dissatisfaction within a family (Heras & Revilla, 1994). Rosenthal and Feldman (1990) also examined acculturation effects on family functioning. The authors examined adolescents from Hong Kong (Chinese), Australia (Chinese-Australian and Anglo-American), and the United States (European-American and Chinese-American). Furthermore, Chinese-American and Chinese-Australian adolescents were classified as first or second-generation residents.

Rosenthal and Feldman (1990) noted that the largest reported differences in family environments occurred between Australian/European-American adolescents and Chinese adolescents living in Hong Kong. Specifically, European-American and Australian youths perceived a more autonomous family with higher levels of authoritative parenting compared to Chinese youths. Chinese youths reported family environments with higher emphases on morality, religiosity, and conformity.

Although Chinese-American and Chinese-Australian reports of family environment were similar to Hong Kong youths, they also reported some family conformity to mainstream European-American and Australian values (Rosenthal & Feldman, 1990). Regardless of acculturation status, Chinese-descent families retained some cultural

traditions within the family environment. However, higher levels of acculturation and time families spent away from their host country led to the adoption of some mainstream values within the family environment.

Nguyen and Williams (1989) also studied issues related to acculturation by examining Vietnamese and European-American families in the United States. Researchers gathered reports of family values from parent-adolescent dyads. Parents and adolescents reported about agreement with traditional Vietnamese family values such as authoritarian parenting styles, family togetherness, and male privilege. Vietnamese parents had more traditional Vietnamese family attitudes compared to Vietnamese youths and European-American parents and youths. Furthermore, Vietnamese boys expressed family attitudes more similar to their parents than Vietnamese girls.

Vietnamese adolescents moderately endorsed Vietnamese family traditions (Nguyen & Williams, 1989). Vietnamese adolescents' attitudes toward traditions were not as positive as Vietnamese parents or as negative as European-American parents and adolescents. However, Vietnamese parents and adolescents were similar concerning other attitudes. Vietnamese parents and adolescents were fairly but not strictly conservative with respect to adolescent freedoms such as dating and college choice. Generational differences in endorsement of some cultural values seem to exist, even among family members. However, Vietnamese family members from all generations were somewhat congruent in endorsing certain traditional cultural values. The authors noted that refugee Vietnamese parents may struggle with the task of raising adolescent children, as parental attitudes toward the family may become more mainstream the longer they are in the United States.

Using a structural equation model, Moon and DeWeaver (2005) examined acculturation and family conflict among emigrated Korean-American adolescents. Higher levels of familial conflict were related to higher levels of youth acculturation, identified by more western culturally-oriented identities. However, social support from the community was as a mediator in this relationship, buffering some of the negative effects of youth acculturation. Higher SES levels were also associated with higher youth acculturation scores. Unfortunately, authors only measured youth acculturation. Korean-American families able to find support within their community may be able to cope with acculturative changes in a healthy fashion.

Although many studies document the family environment of Asian-Americans in relation to generational and acculturation statuses of the family, fewer studies examine the role of the family in fostering youth ethnic identity development. Rosenthal and Feldman (1992) examined which family factors influence ethnic identity development in youths. Ethnic identity and parental styles were explored among first-generation and second-generation Chinese-American and Chinese-Australian adolescents. The authors demonstrated that pride in one's ethnic group among adolescents is influenced by positive family characteristics such as warmth, moderate control, and structure within the family. However, these family factors did not fully explain ethnic pride or other aspects of ethnic identity. Therefore, other personality and environmental factors likely influence ethnic identity development. Unfortunately, youth psychological functioning, such as self-esteem or adjustment, was not measured in relation to family functioning or ethnic identity.

Mossakowski (2003) specifically examined whether ethnic identity influences psychological functioning within Filipino-American adults. Relying on Phinney's (1991) conceptualization of ethnic identity, researchers interviewed participants concerning ethnic identity, discrimination experiences, and general psychological distress. Ethnic identity did influence the relationship between experiences of discrimination and depression. Specifically, higher levels of ethnic identity (e.g., more ethnic pride, belongingness, and involvement) acted as a protective factor for Filipino-Americans. Negative effects of experiencing more depressive symptoms from discrimination were lessened by the protective nature of higher ethnic identity. Although the current study is limited in identifying causal relationships among these variables, more studies with other racial/ethnic groups should explore the potential protective nature of ethnic identity.

Summary of Asian-American family environments and ethnic identity. Many researchers have examined the family environment of Asian-American families. Many authors have also explained the influence of acculturation on family values. However, fewer researchers have examined whether ethnic identity serves as a risk or resilient factor for Asian-American youth psychological functioning (Mossakowski, 2003).

The lack of studies in the area of Asian-American ethnic identity and youth functioning is surprising compared to the numerous studies documenting the protective role of ethnic identity in African-Americans. Mossakowski (2003) provided empirical evidence that ethnic identity may influence mental health among Filipino-Americans. Additional research needs to be conducted concerning the role ethnic identity plays in Asian-American adolescents' psychological functioning.

Hispanic-Americans: Family Functioning and Ethnic Identity

Hispanic-American family functioning. Hispanic-American or Latino-American families also vary according to subgroups, acculturation levels, and migrant history (Roosa, Morgan-Lopez, Cree, & Specter, 2000). The term Latino-American/Hispanic-American encompasses those residing in the United States who can trace ancestral roots from Latin America and includes various subgroups such as Puerto Rican-Americans, Mexican-Americans, Cuban-Americans, and Colombian-Americans (Hurtado, 1995; Massey, Zambrana, & Bell, 1995). Researchers have documented many cultural values that influence the family environment of Hispanic-American families. However, the extent to which any particular Hispanic-American family adopts or maintains such cultural practices depends on social, economic, and historical contexts.

Hispanic-American parents often try to instill values of respect and morality in their children (Azmita & Brown, 2000). Children learn the value of *respeto* and *simpatia* that refer to respecting authority figures and older family members and maintaining interpersonal relations by avoiding direct conflict (Fuligni et al., 1999; Organista, 2003). Regarding *simpatia*, youths should not directly disagree with elders. Respecting elders and authority figures is also a strong cultural value taught to Asian-American youths (Fuligni et al., 1999; Ying et al., 1999). Studies have documented that children in Hispanic families may experience more hostile or controlling parenting practices than other groups, but this has not been linked to psychological problems (Gonzales, Pitts, & Roosa, 2000).

Latino families also tend to promote values of *familismo* or *familism,* which refer to maintaining and valuing positive family functioning (Cauce & Domenech-Rodriguez, 2000; Hurtado, 1995; Organista, 2003; Perilla et al., 2002). The concept of *familismo* does not necessarily include friends outside the family but typically includes intermediate and extended kin (Cauce & Domenech-Rodriguez, 2000; Inclan & Quinones, 2003). The family consists of several geographically close, related intermediate families united by one main household, usually the house of a grandparent (Vega, Hough, & Romero, 1983). However, godparents or *compadres/comadres* are part of the family, even without blood ties (Hurtado, 2000). Central-American refugees, for example, reportedly receive much support from family and non-family organizations (Rousseau, Drapeau, & Corin, 1991).

Research on Latino families' indicates greater importance placed on family obligations, respect, and contact than European-American families (Fuligni et al., 1999; Organista, 2003). Perilla and colleagues (2002) included a measure of cultural beliefs when examining Hispanic-Americans, African-Americans, and European-Americans. Although not the main focus of the study, the researchers also confirmed that Hispanic-Americans and African-Americans report stronger feelings of familism than European-Americans. Furthermore, English and Spanish-speaking Hispanic-Americans responded more strongly on familism questions than African-Americans.

The importance of *familismo* likely varies on a family's generational status, with recent immigrants placing more value on these concepts than later generations (Cauce & Domenech-Rodgriguez, 2000). However, the maintenance of *familism* in many Hispanic-American families is important because *familism* provides support and

contributes to healthier family functioning (Coohey, 2001; Perilla et al., 2002; Vega, 1995). Some researchers believe that social contexts such as poverty and immigration shape Hispanic-American family values (Griswold del Castillo, 1984). However, other researchers believe that core cultural values and ethnic identity are salient, even with acculturation and among later generation family members (Hurtado, 1995; Perilla et al., 2002).

Hispanic-American parents may hope their child becomes educated and succeeds academically and occupationally while maintaining ties and responsibility toward one's family (Azmita & Brown, 2000). Although success of one's offspring is important, parents believe that youth should not forget the importance of family-of-origin. Parents also seem concerned about youth adopting American values and abandoning family-of-origin cultural values. Parents may worry more about adolescents, particularly daughters, and may advise them or restrict their activities in fear of negative peer influences (Azmita & Brown, 2000). Ferrari (2002) also found Hispanic parents to rely more on verbal punishment than European-American parents.

Many researchers have supported the notion that Hispanic families are patriarchal. The socialization of Hispanic males encourages machismo behavior (Villereal & Cavazos, 2005). Machismo behavior occurs when males strongly display traditional male behaviors such as having control over the family and protecting their family from threat. Furthermore, the cultural attitude of machismo has been associated with use of physical punishment by Hispanic fathers (Ferrari, 2002). However, some researchers have noted that many present-day Mexican-American families adopt a more egalitarian role with respect to parenting. Because women increasingly gain employment outside

the home, gender roles are becoming more similar to European-American families (Caldera et al., 2000; Villereal & Cavazos, 2005).

Varela and colleagues (2004) recruited intact Mexican-American, Mexican-immigrant, Mexican (living in Mexico), and European-American families with middle-school aged children. Parent educational levels and family income differed, but these variables did not contribute to parenting styles and/or were controlled in analyses. Mexican-American parents reported using more authoritarian (expectation of strict obedience) parenting styles than European-American families. Furthermore, Mexican parents reported lower levels of authoritarian parenting practices than Mexican-American and Mexican-immigrant parents.

More parents, regardless of ethnicity, utilized authoritative parenting for child-rearing (Varela et al., 2004). The authors suggested that differences between Mexican-American and European-American parenting styles could be fostered by environmental differences associated with ethnic minority status rather than specific differences based on Mexican culture. To further illustrate this concept, European-American and Mexican parents reported similar rates of authoritarian parenting practices. Unfortunately, one major limitation of this study concerned the small sample of Mexican-American families (n = 13) compared to other groups.

Although cultural values related to the family may remain important through generations, several current situations are increasingly disrupting Hispanic-American families. A common scenario concerns a parental figure migrating to America before her children to save money so the children can also migrate (Vlach, 2003). Children may

also live with relatives already residing in the United States, with parental figures remaining in the country of origin.

Mitrani, Santisteban, and Muir (2004) examined the impact of immigration-related family separations and subsequent reunifications in Hispanic families with adolescents using substances. Many children remained in their country-of-origin while a mother migrated to the United States to gain economic resources. Children then moved to the United States after a mother had sufficient resources. Upon reunification, the parent-youth relationship was distant and parents did not know how to raise or communicate with their children in America. Such parent-child conflicts may have contributed to the youth's behavioral problems.

Family separations due to immigration can disrupt and fragment family systems, but parental figures often believe a better life will exist in America and view separations as necessary sacrifices (Mitrani et al., 2004; Vlach, 2003). However, many youths do not understand the reasons behind separation and may feel confused or bitter toward the parent. Such separations are common in migrating Hispanic families and this is a unique problem for many Hispanic families moving to the United States. Many Hispanic families move to areas heavily populated with families from their native countries and are able to find support in these neighborhoods (Rousseau et al., 1997). More researchers are exploring how specific family factors relate to Hispanic-American youth functioning.

Family factors related to Hispanic-American youth functioning. Other issues that impact Hispanic families disproportionately are effects of living in urban, inner-city areas marked by economic disadvantage. Gorman-Smith and colleagues (2000) recruited African-American and Mexican-American middle school males at risk for aggressive

behavior. Researchers assessed the boys and their caregivers five times over a one-year period with respect to youth psychological functioning, family functioning, and parenting styles.

Gorman-Smith and colleagues (2000) used cluster analyses to classify families into four groups. Mexican-American families were characterized by parenting styles of moderate or low levels of discipline and monitoring more so than African-Americans. Furthermore, Mexican-American youths were more likely to be in families with lower levels of cohesion and beliefs than African-American youths. Compared to Mexican-American families, African-American families had (1) more structure, monitoring, warmth, family-related beliefs, and cohesion or (2) families with higher structure and lower levels of warmth and beliefs.

A potential confound in the Gorman-Smith et al. (2000) study was educational level. Mexican-American parents reported lower levels of high school completion and college and higher income levels than African-American parents. Using family income and mother's educational level as covariates, higher functioning families and, consequently, African-American boys, reported more positive educational attitudes and goals. Optimal family functioning did contribute to youth resiliency compared to other family functioning styles. At-risk youths in optimal families had lower levels of internalizing and externalizing symptoms. Specifically, Mexican-American youths who were in optimal functioning families were more strongly protected from further internalizing symptoms over time than other youths.

Gorman-Smith and colleagues (2000) demonstrated different functioning patterns in African-American and Mexican-American youths, partially related to family and

parenting styles. The authors speculated that Mexican-American families may experience more parent-adolescent conflict due to acculturative stress. Unfortunately, differences in family styles may have been confounded by educational and income differences between the two groups. Optimal family functioning served as a protective factor for youths living in at-risk, disadvantaged neighborhoods. Furthermore, families endorsing many family-related beliefs, which could relate to cultural beliefs, influenced positive youth outcomes.

Lindhal and Malik (1999) more specifically examined Hispanic-American and European-American families and how marital conflict related to child psychological functioning. Hispanic-American, European-American, and multiracial (Hispanic-American and European-American) boys aged 7-11 years and their mothers were interviewed. Children had two primary parents in the household. Approximately half of Hispanic-Americans described themselves as Cuban-Americans, with others described as Hispanic-Americans from other parts of Central or Latin America. All families were fairly similar with respect to parenting styles.

Families characterized by higher levels of marital conflict and permissive and inconsistent parenting related to higher youth externalizing problems, regardless of ethnicity (Lindhal & Malik, 1999). However, European-American and multiracial youths exhibited more symptoms when families employed hierarchical (similar to authoritarian) parenting styles. Unlike other groups, only Hispanic-American boys fared better psychologically when parents employed hierarchical rather than lax parenting styles. Furthermore, lower family cohesion more strongly related to symptoms in Hispanic-American boys compared to other ethnic groups. Consistent parenting and less

marital conflict may partially prevent a child from developing externalizing symptoms, across ethnic groups. However, stricter parenting and family togetherness may protect Hispanic-American boys in particular from deviant behavior.

The Varela et al. (2004) and Linhal and Malik (1999) studies indicate a need to consider multiple social contexts when examining influences of family functioning on child outcome. Relying on ecological theories, Keegan and Mulder (2005) examined risk for antisocial behaviors in Hispanic-American adolescents born to younger mothers aged 14-21 years. Higher levels of poor-quality neighborhoods/schools, peer pressure, poverty, and physical punishment were related to higher levels of adolescent deviant behavior.

Eamon and Mulder (2005) theorized that lower levels of acculturation in mothers may hamper her ability to optimally assist her child's psychological development. Higher maternal acculturation, or mothers who lived longer in the U.S. and were more comfortable with English, was associated with less youth symptoms. Interestingly, maternal education and parent-youth conflict were not risk factors for youth symptoms. Higher levels of parental monitoring and more positive parent-child relationships were protective factors associated with less youth antisocial symptoms.

Eamon and Mulder (2005) demonstrated that many variables, such as maternal acculturation and parental monitoring, play a role in youth psychological functioning. Analyzing current findings in a more sophisticated way, such as through structural equation modeling, may explain these relationships more specifically. The authors also noted that maternal acculturation level may influence child outcome. However, the authors were unable to specifically deconstruct this relationship.

Strong attitudes toward family obligations and respect are evident in Latin-American compared to European-American adolescents (Fuligni, Tseng, & Lam, 1999). In a comparison of Asian-American, Latin-American, and European-American youths, Latin-American adolescents continued to endorse strong family obligations across generational status and socioeconomic status levels. For example, Latin-American youths reported stronger commitment to helping parents in the future compared to European-American youths. Comparisons among generational levels revealed that first-generation Mexican-American adolescents reported stronger attitudes about assisting parents in the future compared to third-generation Mexican-American adolescents.

Endorsement of traditional cultural values surrounding the family generally did not have a negative impact on youth's peer development or grades (Fuligni, Tseng, & Lam, 1999). Youths who reported strongest commitments to assisting the family also reported lowest grades. Diverse youths who value family obligations seem to have healthier family relations and good peer networks. However, those youths with extreme obligations toward their family may experience negative consequences.

Summary of family factors related to Hispanic-American youth functioning. Many family variables seem to influence Hispanic-American adolescent psychological functioning. Researchers have implicated factors related to adolescent outcome such as poverty, neighborhood, parenting styles, family support, and acculturation factors (Eamon & Mulder, 2005; Keegan & Mulder, 2005; Way & Robinson, 2003). However, the role of some "risk factors" is still unclear. For example, other researchers have not discerned relationships between poverty and youth psychological difficulties (McDonald, McCabe, Yeh, Lau, Garland, & Hough, 2005; Samaniego & Gonzales, 1999; Weiss,

Goebel, Page, Wilson, & Warda, 1999). Other researchers are still attempting to deconstruct the role of acculturation and ethnic identity in Hispanic-American families and youths. The next section will review articles examining these specific cultural factors with respect to youth psychological functioning.

Hispanic-American ethnic identity and acculturation. The development of a healthy ethnic identity may serve as a protective factor against risky behaviors for Hispanic-American youths (Marcell, 1994). Lang and colleagues (1982) reported that Hispanic-American adults who had achieved "bicultural" identities reported healthier psychological adjustment compared to Hispanic-Americans not acculturated and Hispanic-Americans who were highly acculturated. For ethnic identity to serve as a protective factor, Hispanic-Americans may need to retain positive feelings towards cultural values and traditions while adapting to mainstream American norms.

Parental acculturation may impact child psychological functioning (Weiss et al., 1999). Hispanic-American children aged 2-3 years were more likely to exhibit externalizing symptoms when parents were immigrants compared to children of United States-born Hispanic-American parents. However, parental ethnic identity did not influence child behavioral problems. Higher levels of child internalizing symptoms were associated with families that reported greater reliance on passive coping strategies. Parents who were dissatisfied with family relations also negatively influenced child psychological functioning.

Parental acculturation and immigrant status influence child development (Weiss et al., 1999). In a study of parental acculturation and youth functioning, higher levels of stress reported by Hispanic children were related to poor family functioning

(McNaughton, Cowell, Gross, Fogg, & Ailey, 2004). Maternal mental health positively correlated with family functioning. However, maternal acculturation level was not strongly or directly related to youth mental health. All mothers were born in Mexico, yielding limits on the range of acculturation levels represented. Discrepant findings are apparent when reviewing studies concerning acculturation in relation to youth psychological functioning.

Other researchers have more specifically examined youth acculturation and ethnic identity with respect to psychological development. For example, Allen (1996) and colleagues found acculturated Hispanic-American female adolescents to be better able to cope with daily stressors compared to female adolescents who were less acculturated. However, the measure of acculturation was limited. The acculturation measure was limited to inquiries of participants' use of English in different contexts.

Allen and colleagues (1996) also reported that, for more acculturated Hispanic-American females, higher self-esteem serves as a protective factor against depression. In a two-year longitudinal study, cultural affiliation moderated a relationship between self-esteem and internalizing symptoms for Mexican-American females but not males. Specifically, Mexican-American female adolescents reported less cultural affiliation and a stronger relationship between these variables compared to females reporting higher cultural affiliation (McDonald et al., 2005).

The authors speculated that self-esteem may play a greater role in more acculturated Mexican-American females because these females base their psychological functioning on individual factors more than interpersonal contexts (McDonald et al., 2005). Affiliation with Mexican culture implies a collectivistic approach to relationships and

family life, so these factors may be more likely to influence the psychological development of affiliated Mexican-American females. Measures used in this study were more sophisticated than other studies of ethnic identity and acculturation in Hispanic-American youths. However, the findings may not apply to all Mexican-American youths. Youths identified as at-risk were from drug and alcohol programs, the juvenile justice system, and child welfare services.

Acculturation and ethnic identity may directly influence some areas of youth psychological functioning (Allen et al., 1996; McDonald et al., 2005). The role of acculturation in youth functioning may also function in a more indirect fashion for delinquent behaviors (Samaniego & Gonzales, 1999). Higher levels of acculturation related to delinquent behaviors among Mexican-American adolescents. However, the relationship between delinquency and acculturation was best explained via a mediational model.

Samaniego and Gonzales (1999) reported that higher levels of family conflict and inconsistent discipline, and lower levels of parental monitoring, mediated the relationship between acculturation and delinquency in Mexican-American adolescents. Peer pressure and peer conflicts were partial mediators in the relationship between acculturation and delinquent behaviors. The authors proposed that researchers must further examine how family, peer, and cultural influences relate to youth development. Unfortunately, acculturation was minimally measured via generational status and use of English.

Acculturation is often studied with respect to family functioning and youth development, whereas ethnic identity is studied less often. Higher acculturation related to greater overall substance use among multiethnic seventh-grade males and females

(Marsiglia, Kulis, Hecht, & Sills, 2004). For ethnic identity, higher levels of ethnic identity related to lower substance use.

Marsiglia and colleagues (2004) reported that ethnic identity was more of a protective factor against substance use for European-Americans than Mexican-Americans. Youths were from Southwest schools with primarily Hispanic-American students. Ethnic identity may be more important to individuals constantly reminded of their ethnicity or racial background. Whether the study results would generalize to adolescents in other regions is unclear, but contextual factors may influence the salience of ethnic identity.

Summary of Hispanic-Americans: Family functioning, acculturation and ethnic identity. Some researchers report that familial risk and resilience variables relating to child outcome are quite similar across ethnic groups (Baer, 1999; Way & Robinson, 2003). Other researchers note more specific differences relating to parenting styles and the greater importance of cohesion in Hispanic-American families (Lindhal & Malik, 1999). Certain contextual factors may define Hispanic-American families more than families from other racial/ethnic groups (Gorman-Smith et al., 2000). These contextual factors can hinder or foster healthy child psychological development. However, the role of some issues in relation to youth functioning, such as poverty, continues to be unclear (McDonald et al., 2005; Weiss et al., 1999). Research that considers these multiple aspects of the child's environment, such as family functioning and endorsement of cultural beliefs, may better explain Hispanic-American adolescent psychological development.

Multiracial Individuals: Family Functioning and Ethnic Identity

Multiracial Family Functioning. In the past, multiracial couples have often confronted discrimination, prejudice, and disapproval. Even so, an increase in the number of multiracial families and couples has occurred in the United States since the 1950s (Taylor Gibbs, 2003). Fortunately, American society increasingly accepts multiracial couples. However, children of these multiracial couples may experience further difficulties. For example, children of multiracial couples may report experiencing different conflicts than their parents, such as struggling to develop a healthy ethnic identity based on two ethnicities/races rather than one (Taylor-Gibbs, & Moskowitz-Sweet, 1991).

Current attempts to provide a coherent view of the multiracial family are incomplete or partially inaccurate. One study demonstrated that multiracial children raised by majority and minority parents may experience less restrictive parenting styles congruent with European-American parenting styles compared to non-European-American monoracial children (Cauce et al., 1992; Lindhal & Malik, 1999). Specifically, Lindhal and Malik (1999) reported that Multiracial (European-American and Hispanic-American) and European-American children may be similar in what family factors foster child resilience compared to Hispanic-American children. Specifically, multiracial and European-American displayed more externalizing symptoms in response to more strict parenting styles than Hispanic-American boys. Furthermore, multiracial boys exhibited more externalizing symptoms with increased lax parenting and marital conflict and less family cohesiveness.

Many reports indicate that a multiracial child is labeled a minority even if one parent is European-American (Cauce et al., 1992; Looby, 2001). This situation may drive a youth to identify more with their ethnic minority culture. However, some researchers have concluded that substantial differentiation exists among multiracial adolescents and families (Cauce et al., 1992; Phillips, 2004). If a multiracial youth is raised in a resilient and warm family, he should not face unique issues with respect to ethnic identity compared to non-multiracial youths (Okun, 1996). Researchers may have to appreciate the unique diversity of multiracial families and youths, understanding that attempts to identify coherent group similarities may be unsuccessful.

Multiracial status has generally been associated with adjustment problems, poor self-worth, and identity confusion (Cooney & Radina, 2000). However, some studies have not supported this assumption (Bracey, Bamaca, & Umana-Taylor, 2004; Cauce et al., 1992; Cooney & Radina, 2000). Furthermore, researchers interested in multiracial youth adjustment state that much research concerning multiracial youths features small samples or clinical samples (Cooney & Radina, 2000). Monoracial parents may have to reexamine their own views about race and their attitudes toward their own racial differences to facilitate children's ethnic identity development. Youths may also struggle to develop a healthy ethnic identity if parents do not unite in teaching children about their ethnic backgrounds and cultural norms (Phillips, 2004; Taylor-Gibbs, & Moskowitz-Sweet, 1991).

Multiracial ethnic identity. The development of ethnic identity in multiracial individuals may be coupled with unique challenges. Multiracial youths initially realize that their phenotypic traits may differ from one or both biological parents (Okun, 1996).

However, adolescence often marks the cognitive awareness of one's ethnic identity. Some adolescents may feel pressured to choose one parent's ethnic or racial group over another (Winn & Priest, 1993). The formation of racial identity continues through early adulthood, where an individual is confronted with issues of choosing one ethnic identity or integrating both racial/ethnic heritages, to deciding whom to date or marry (Herring, 1992; Okun, 1996). Family factors such as support and exposure to both racial heritages aid the development of a healthy multiracial ethnic identity. Single parent families and parental avoidance of race-oriented discussions may hinder development of a healthy ethnic identity in multiracial youths.

Research has supported the notion that multiracial individuals are a diverse group whose ethnic identity is influenced by multiple interacting factors (Bracey et al., 2004; Phillips, 2004). Bracey and colleagues (2004) reported that multiracial adolescents endorsed greater levels of positive ethnic identities compared to European-American adolescents. However, Hispanic-American, African-American, and Asian-American adolescents endorsed higher levels of ethnic identity than multiracial youths. Furthermore, higher levels of self-esteem were associated with more positive ethnic identities in all ethnic and racial groups.

Multiracial adolescents in the Bracey et al. (2004) study were able to develop healthy ethnic identities, though this process may be more complex compared to minority racial and ethnic groups. The process of ethnic identity development pressures an adolescent into considering their current and future self-image related to ethnicity and race. Among adolescent multiracial girls, self-esteem related to ethnic identity in girls of African-American and European-American descent (Phillips, 2004). Multiracial girls with

African-American and European-American heritages who identified themselves as "White" rated themselves lower in perceived attractiveness and endorsed lower levels of self-esteem compared to other multiracial girls. This result was opposite general findings related to monoracial and multiracial girls who identified themselves as "Black" and who endorsed highest levels of self-esteem and perceived attractiveness. The development of ethnic identity in adolescents is thus a complex process and the decision to identify with one ethnic group may not always be associated with optimal outcome.

Fatimilehin (1999) recruited adolescents with one African-Caribbean parent and one White-British parent. The sample size was small (n = 23) and four adolescents reported one parent with mixed heritage. Half of the adolescents lived with single mothers and 45% of these mothers were European-American. When adolescents described their ethnic heritage, over half labeled themselves as "African-Caribbean," with other adolescents stating they were "other" mixed heritage.

Fatimilehin (1999) reported age differences in ethnic identity endorsement. Fewer adolescents (under age 16 years) referred to themselves as having mixed heritage compared to older adolescents. Older adolescents also reported more overall positive attitudes toward their mixed race heritages compared to younger adolescents. Higher levels of self-esteem related to positive attitudes toward African and White-British heritages. Furthermore, adolescents who resided with both parents were more likely to receive lessons from parents concerning African cultural and spiritual content and the need to be aware of possible social oppression. However, adolescents living with one parent (who was more likely to be a White mother) also received parental lessons concerning African racial pride.

Fatimilehin (1999) demonstrated that ethnic identity development in youths may not be hampered by living with one monoracial parent. However, the author noted that 80% of youths resided in areas significantly populated with ethnic minority residents, which may have aided youth in ethnic identity development. Fatimilehin (1999) provided evidence for positive ethnic identity development in multiracial adolescents. Furthermore, even when youths do not receive exposure to both parents, they remain more likely to develop positive ethnic identities. A major limitation of this study concerns the population examined: adolescents living in Britain. The experience of multiracial adolescents in the United States may differ dramatically from multiracial adolescents in other countries.

Summary of multiracial families and ethnic identity. Few researchers have examined the psychological functioning of multiracial adolescents. Unfortunately, many theories regarding multiracial families are not based on empirical studies. However, some researchers have examined processes involved in multiracial ethnic identity development (Bracey et al., 2004; Fatimilehin; 1999; Phillips, 2004). These and other researchers should continue this work and more specifically examine how ethnic identity and family functioning relates to multiracial adolescent psychological functioning.

Multi-group research studies pertaining to ethnicity and family functioning

A major limitation concerning many of the research studies reviewed in the preceding sections concerns the nature of the comparisons conducted. Although many researchers examine family characteristics within a cultural framework, samples are often limited to one or two ethnic groups. Consequently, empirical knowledge of how different ethnic groups compare to one other is limited. Fortunately, a handful of researchers studying

youth functioning in relation to family environments have been able to recruit adequate participants from various racial and ethnic groups. Direct comparisons of multiple ethnic and racial groups will enable psychologists to outline relationships among family functioning and various cultural variables in youth psychological functioning.

Certain family environment characteristics may serve as risk or resilient factors for youth psychological functioning regardless of ethnicity and race (Way & Robinson, 2003). In a longitudinal study of low-income, African-American, Hispanic, and Asian-American adolescents, the effects of family support were similar across groups. Some youths who reported low familial support in the beginning of the study reported healthier psychological functioning at year two. Increased psychological functioning was related to increased familial support over time. Interestingly, only youths who reported low familial support at year one experienced improvement in psychological symptoms from increased family support. Healthy psychological functioning was indicated by lowered depressive symptoms and increased self-esteem over a two-year period.

In general, risk and resilience factors contribute to youth functioning. Among European-American, African-American, and Hispanic adolescents, more risk factors (e.g., low self-esteem, deviant friends) in a youth's environment predicted more involvement in deviant behaviors such as delinquent acts and drug/alcohol use (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Conversely, the presence of more resilient factors (good relationships with parents/other adults and pro-social friends) predicted less involvement in such deviant behaviors. Furthermore, even when youth faced multiple risk factors, their subsequent involvement in problem behaviors was moderated by protective factors. At-risk youths with higher levels of protection were

less likely to engage in deviance compared to at-risk youths with low levels of environmental protective factors. Unfortunately, adequate statistical analyses among various ethnic/racial groups were not possible given low sample size.

Choi and colleagues (2005) advocated statistical models to examine risk and resilience variables related to the development of ethnic minority problem behavior. Risk factors such as deviant peer beliefs, unsafe neighborhoods, and less parental monitoring contributed to deviant behaviors in African-American, Asian/Pacific Islander, European-American, and multiracial youths. Furthermore, positive family practices and healthy parent-child involvement and bonding protected all youths from engaging in deviant problem behaviors. Some ethnic differences were evident and slight variations occurred in the strength of the relationships among risk and protective variables and problem behaviors. For example, European-American youths reported that family involvement more often included democratic parenting practices compared to other youths. The latter study reported that not all participants were born in the United States, but the authors failed to examine constructs related to acculturation or ethnic identity.

In addition to parenting styles (Choi, Harachi, Gillmore, & Catalano, 2005), family decision making may contribute to youth adjustment (Lamborn, Dornbusch, & Steinberg, 1996). Lamborn and colleagues (1996) examined effects of family decision making for youth behavior with respect to youth psychological outcomes (e.g., grades, psychosocial development, and deviant behaviors) among African-American, Hispanic, European-American, and Asian-American adolescents. Adolescents who made decisions independently of their parents (unilateral adolescent decision making) engaged in more deviant behaviors over time. Conversely, healthy psychological adjustment, good

grades, and more prosocial behavior for all adolescents were associated with cooperative, democratic decision making that involved parents and adolescents (joint decision making).

Lamborn and colleagues (1996) noted slight differences in the effects of unilateral decision making (when parents were more dominant in decision making) among ethnic groups. Higher levels of unilateral parental decision making were related to poorer youth outcomes among European-American youths. Higher levels of unilateral parenting were unrelated to youth outcomes among Hispanic and Asian-American youths.

Unilateral decision making may serve a protective function for African-American youths (Lamborn et al., 1996). Low-income and middle-income African-American youths demonstrated better psychological and behavioral outcomes when parents employed higher levels of unilateral parental decision making. The authors speculated that strict parental control over African-American adolescents may serve as a protective function regardless of neighborhood. For example, African-American adolescents in poorer neighborhoods may have fewer resources or be in more dangerous situations. African-American youths residing in wealthier neighborhoods may be more vulnerable to discrimination, as these neighborhoods typically consisted of predominately European-American residents.

In addition to familial risk and resilient variables, ethnic identity and acculturation may influence youth attitudes toward negative experiences (Romero & Roberts, 2006). Acculturation, ethnic identity, and perceptions of discrimination were examined among African-American, European-American, Mexican-American, and Vietnamese-American adolescents. European-Americans reported less perceived discrimination and the lowest

ethnic affirmation and exploration. Compared to other adolescents, Mexican-American and Vietnamese-American groups were less acculturated. Adolescents less acculturated, as indicated by immigrant status and speaking less English, reported more discrimination compared to more acculturated youths.

Adolescents who endorsed more ethnic exploration and negative attitudes toward other ethnic/racial groups reported more perceived discrimination (Romero & Roberts, 2006). Conversely, levels of ethnic affirmation were unrelated to perceptions of discrimination. Adolescents who endorsed higher levels of ethnic affirmation reported more positive attitudes toward other ethnic and racial groups. Further, African-American adolescents endorsed highest levels of ethnic affirmation and perceived discrimination compared to other youths. Vietnamese-Americans endorsed the highest levels of ethnic exploration compared to other adolescents.

Some aspects of ethnic identity appear to influence adolescent perception of discrimination (Romero & Roberts, 1998). More studies should examine the relation of ethnic identity and family environment to various child experiences and functioning. Greene and colleagues (2006) reported that adolescents with high levels of ethnic identity achievement were prone to develop lower self-esteem with more peer discrimination compared to adolescents with lower levels of ethnic identity achievement. However, youths who reported high levels of ethnic affirmation were less prone to developing lower self-esteem as a result of peer discrimination compared to youths with lower levels of ethnic affirmation.

Greene and colleagues (2006) speculated that adolescents who actively explore their ethnic identity (high ethnic identity achievement) may be temporarily at risk for lower

self-esteem because these adolescents are still identifying in-group and out-group members and deciding where they belong. However, adolescents firmly attached to their ethnic group (high ethnic affirmation) may feel more comfortable about their ethnic group and this fosters resilience from negative effects of peer discrimination.

Some researchers are beginning to realize the importance of ethnic identity in ethnic minority youth attitudes, perceptions, and development. Ethnic identity may prominently influence various aspects of youth development. More specifically, researchers need to explore how ethnic identity may serve as a protective or risk factor with respect to child development.

Summary of Family Environment Variables and Cultural Influences

A common criticism of the family environment literature on diverse families concerns lack of empiricism. Many writings on the nature of ethnic minority individuals and families are based on assumptions and generalizations. Furthermore, many traits associated with ethnic minority individuals and families are confounded with socioeconomic status, ethnic identity, and acculturation differences (Turner & Wielding, 2004). As a result of such criticisms, recent researchers have conducted empirical studies on several aspects of diverse families. To adequately examine the psychological functioning of diverse youths and families, ethnic identity or acculturation measures should always be part of these studies.

Greene and colleagues (2006) emphasized that ethnic identity may serve as a protective factor for youth psychological functioning. Greene and colleagues (2006) supported the notion that ethnic identity variables may be important moderating variables for African-American, Asian-American, and Hispanic adolescents. Further, ethnic

identity appears to influence youth perceptions and attitudes toward negative experiences such as discrimination (Romero & Roberts, 1998). Unfortunately, researchers need to more carefully examine ethnic identity in relation to healthy youth functioning.

While many family characteristics can influence adolescent functioning, trauma is an event that can hinder an adolescent's well-being (Ray et al., 1991). Child maltreatment is a type of trauma that occurs in many traditional and non-traditional families. Child maltreatment is also an event that impacts all members of an affected child's family. Researchers have posited that child maltreatment may be associated with certain family dynamics (Mullen, 1993). The following section will thus focus on culturally influenced beliefs concerning child maltreatment.

Culturally Influenced Beliefs Concerning Maltreatment

Beliefs related to childrearing practices vary according to culture. Support exists for the notion that attitudes toward maltreatment vary cross-culturally as well (Ferrari, 2002; Hong & Hong, 1991; Rao, DiClemente, & Ponton, 1992). Hong and Hong (1991) reported that Chinese-Americans expressed more favorable attitudes concerning parental discipline and said they would be least likely to report maltreatment compared to Hispanic-Americans and European-Americans. However, Chinese-Americans in the Hong and Hong (1991) study were immigrants and may have different values compared to United States-born Chinese-Americans. In another study involving parent-child dyads receiving services for child sexual maltreatment, Asian-American children reported higher rates of suicidal ideation but lower rates of externalizing behaviors compared to other ethnic/racial groups (Rao et al., 1992). Asian-American caretakers were also less

supportive of their child's claims regarding sexual maltreatment compared to other ethnic groups.

Beliefs concerning maltreatment may vary across cultures. Family factors leading to maltreatment may also differ cross-culturally. Researchers gave measures of familism and social support to maltreating and non-maltreating Hispanic and European-American mothers (Coohey, 2001). Maltreating parents reported not receiving enough support and had fewer supportive kin than non-maltreating mothers.

Non-maltreating Hispanic mothers reported more supportive family networks compared to other mothers (Coohey, 2001). Maltreating Hispanic mothers received more support from non-family friends than family members. Coohey (2001) examined important aspects of familism in European-American and Hispanic mothers, demonstrating that kin networks, rather than support from friends, may play a more protective role in the Hispanic community. Some evidence exists that family-based cultural variables influence parental attitudes and risk toward child maltreatment. Family environment does affect child development and may influence a child's tendency to develop psychological symptoms after maltreatment. The following sections explore research findings examining the influence of family environment on effects of maltreatment.

Family Environment and Effects of Maltreatment

Psychological effects associated with trauma, such as PTSD, may relate to family contexts (Craine, Hanks, & Stevens, 1992). Specifically, family responses to a family member's traumatic experience may influence that family member's interpretation of, and reactions to, the trauma. Craine, Hanks, and Stevens (1992) posited that family

functioning in general may affect a family member's potential for managing PTSD. A recent article posited that general anxiety disorders in children may be fostered by particular family dynamics (Suveg, Zeman, Flannery-Schroeder, & Cassano, 2005). Because family environment may contribute to the development or maintenance of anxiety disorders, research concerning family environment and PTSD and related symptoms will be examined.

An examination of pre-adolescents with and without anxiety disorders supported the notion that anxiety disorders may develop in emotionally restrictive family environments (Suveg et al., 2005). Researchers noted that, compared to mothers of children without anxiety disorders, mothers of children with anxiety disorders refrained from discussing emotions and expressed less optimal thoughts on emotions when interacting with their child. The authors posited that mothers of children with anxiety disorders may be anxious themselves and that the family environment of these children was emotionally restrictive.

Researchers have overwhelmingly supported the notion that trauma and maltreatment contribute to the development of PTSD and PTSD symptoms in children and adolescents (Linning & Kearney, 2004; McLeer et al., 1998; Shaw et al., 1995; Wolfe, Sas, & Wekerle, 1994). Past studies of maltreatment and family environment focused on an array of adjustment symptoms in adults. However, researchers have begun to examine the relation of family factors to PTSD development and maintenance in youths.

Among adults reporting maltreatment during childhood, family factors such as cohesion mediated the relationship between maltreatment and PTSD symptoms (Higgins, McCabe, & Ricciardelli, 2003). Lower levels of cohesion influenced the relationship

between maltreatment and elevated PTSD symptoms. Family factors such as parental violence appeared to moderate the relationship between sexual maltreatment and PTSD symptoms.

Higgins and McCabe (2000) posited that family factors such as low cohesion are often associated with physical and psychological maltreatment. Caution must be taken when considering family and trauma research findings in adults because of the retrospective nature of victim self-reports. However, findings that parental violence and domestic violence within the home predict posttraumatic stress symptoms replicate in studies with children (Silva et al., 2000).

Substantial literature is devoted to the functioning of individuals affected by child maltreatment. More often than not, these studies are devoted to adult survivors of child sexual abuse (CSA). This literature base is relevant to the current study in that many authors have attempted to explain victim functioning with respect to family-of-origin variables. Unfortunately, the bulk of traditional maltreatment literature examining family functioning is retrospective and with samples of adult victims of CSA. Therefore, an overview is provided of studies of effects of maltreatment with respect to family functioning and later adult functioning. However, some studies will be presented that included child or adolescent samples.

Family environment and maltreatment: Adult studies. Maltreatment may occur more often in certain types of families (Mullen, 1993). Researchers have supported the notion that maltreatment, particularly CSA, occurs in families characterized by parental control, conflict, and less cohesion (Alexander & Shaeffer, 1994; Edwards & Alexander, 1992). For example, Alexander and Lupfer (1987) examined family traits of female

undergraduates who had experienced CSA by an intra-familial or extra-familial perpetrator. Women who were incest victims described their family-of-origin as more traditional in parental and gender roles compared to women who experienced extra-familial maltreatment. Compared to women who had not experienced maltreatment, women reporting maltreatment reported less family cohesion and adaptability.

Studies of family variables in victims of maltreatment yield similar results. Long and Jackson (1991) reported that families of sexual maltreatment victims were characterized by less organization and more rigidity. Furthermore, Yama, Tovey, and Fogas (1993) found increased family cohesion and conflict and less control to be important moderators in the experience of CSA and adult depression. An extremely cohesive, conflicting, and controlling family may facilitate the potential for negative psychological effects related to CSA.

The family environment of maltreatment victims relates to later psychological symptoms. Edwards and Alexander (1992) reported that features of family dysfunction such as parental conflict related to later psychological functioning regardless of whether maltreatment was intra-familial or extra-familial. Gold and colleagues (2004) reported that CSA victims had significantly more family-of-origin dysfunction than non-victims, regardless of whether the perpetrator was intra-familial or extra-familial (Gold, Hyman, & Andres-Hyman, 2004). Using the Family Environment Scale, victims reporting intra-familial abuse perceived their families as more conflictive than victims of extra-familial abuse, who reported more family cohesion and independence. However, the authors examined female CSA survivors who were primarily European-American (76.5%).

Ethnically and racially diverse individuals were placed in an "other" category (22.5%) and 1% of participants did not specify race/ethnicity.

Kinzl and colleagues (1995) examined factors of CSA and family experiences with respect to adult sexual dysfunction among European-American female college undergraduates. CSA and negative family experiences such as social isolation within the family or a negative parent-child relationship increased one's risk of developing sexual dysfunctions. However, this study did not have a representative sample and did not examine whether negative family experiences directly mediated a relationship between CSA and later sexual dysfunctions. Many studies demonstrate associations between negative family environments and poor psychological functioning. Unfortunately, many studies also recruit non-representative samples or fail to adequately separate effects of family environment from maltreatment.

Other researchers have attempted to better study the relationship between family environment and later functioning for those who have experienced CSA. Difficulty often arises in determining the greatest effect on later dysfunction, family environment, or experiences of maltreatment. For example, Edwards and Alexander (1992) reported that negative family-of-origin environments did predict psychological adjustment and relationship problems independently of CSA. However, CSA severity also was a salient experience independently contributing to later psychological functioning.

Nash and colleagues (1993) recruited adult females from clinical and non-clinical backgrounds who reported child sexual maltreatment. When family factors were a covariate, differences in psychological and dissociation symptoms were non-existent. Later pathology in victims of CSA may be due to family environment as much as

maltreatment itself. The Nash study provided fairly generalizable results because appropriate controls were used to specifically study the impact of CSA in clinical and normal samples.

Carlson and colleagues (2001) reported that more instances of child physical maltreatment, more caretaker mental health problems, and less childhood social support contributed to adult symptoms of PTSD, dissociation, and depression. These findings applied to adult psychiatric inpatients. Unfortunately, the retrospective reports of caretaker dysfunction and childhood social support may be partially inaccurate. However, the authors stated that family-of-origin variables and child maltreatment are important influences in child development. Further, later pathology may be influenced by child maltreatment and negative family factors. Determining which variable contributes more to later pathology may not be possible.

Family environment and maltreatment: Youth studies. A major criticism of many studies examining the family environment of adult maltreatment victims is the retrospective nature of the methods. Many researchers have thus examined the family profiles of adolescents who more recently experienced maltreatment. Ray and colleagues (1991) found no notable differences between intra-familial and extra-familial CSA adolescent victims. CSA victims in general perceived their family-of-origin as less cohesive, less independent, and more disorganized than controls. Dadds and colleagues (1991) recruited adolescent girls who had experienced incest. Maltreating families reported less family cohesion, expressiveness, and independence as well as more conflict, control, and structure than control families.

Abuse potential and family factors were examined with the Family Environment Scale (Moos & Moos, 1986) in maltreating parents and matched non-maltreating controls (Mollerstrom, Patchner, & Milner, 1992). Potential for physical maltreatment positively correlated with family conflict and control. As parents received higher physical maltreatment scores, their family environment was less likely to involve cohesion, expressiveness, organization, and independence. However, the authors did not examine how such family characteristics related to child functioning. Furthermore, while 19% of the sample was African-American, racial comparisons on family variables were not mentioned.

Adolescents who experience maltreatment demonstrate similar family profiles compared to adults who retrospectively report maltreatment. Many researchers have also examined how unhealthy family profiles influence a child psychologically after maltreatment. For example, Ray and colleagues (1991) reported that adolescents who experienced incest by a father or stepfather displayed more conduct-like behaviors than non-abused controls.

Williamson and colleagues (1991) examined family variables and adolescent behavior in mother-adolescent pairs affected by physical maltreatment, sexual maltreatment, and neglect (Williamson, Borduin, & Howe, 1991). Non-maltreated controls perceived their families as more cohesive than maltreated youths and more adaptable than sexually and physically maltreated adolescents. Physical maltreatment may be more likely to occur in particularly non-flexible families compared to families of non-maltreated, sexually maltreated, and neglected adolescents. Physically maltreated

adolescents were also more likely to engage in conduct-like behaviors and sexually maltreated adolescents reported more internalizing symptoms.

Experiences of sexual maltreatment, family factors, and psychological symptoms were examined among youths aged 4-17 years (Conte & Schuerman, 1987). Maltreated youths were more likely to report increased psychological symptoms when their family was less supportive and had dysfunctional characteristics. One of the most important indicators of healthy youth coping after sexual maltreatment was the presence of a supportive, healthy family.

Summary of family variables related to maltreatment. Some authors have implicated maltreatment as a risk factor for future difficulties independent of family functioning (Nash et al., 1993). Many researchers posit that family dysfunction may be a risk factor only in certain types of maltreatment, such as emotional maltreatment (Messman-Moore & Brown, 2004). Furthermore, many researchers posit that dysfunctional family members fail to teach a child proper coping and survival skills, thus making him more prone to maltreatment and later difficulties (Gold, 2000). Researchers have, however, provided evidence that individuals maltreated as a child are at high risk for developing an array of dysfunctions in adulthood. Furthermore, children are at risk for exhibiting psychological symptoms soon after trauma (Conte & Schuerman, 1987).

Most studies in this area indicate that not all individuals who experienced maltreatment develop dysfunctions. A history of maltreatment is presented as a significant risk factor for later dysfunctions such as sexual ailments, personality disorders, depression, and dissociation (Alexander & Schaeffer, 1994; Davis & Petretic-Jackson, 2000; Leonard & Follette, 2002; Heiman & Heard-Davison, 2004; Yama,

Tovey, & Fogas, 1993). Identifying maltreatment as a risk factor for later psychopathology is important. However, the question of why some maltreatment victims develop such symptoms and why others do not is unanswered. Maltreatment victims are reportedly more likely to come from a dysfunctional family than non-maltreated individuals (Gold, 2000). Factors such as family environment and specifics of maltreatment typically confound the relationship between CSA and later functioning (Rind et al., 1997). Specific factors of trauma increase the risk of developing dysfunctions, as do negative family-of-origin factors such as domestic violence in the home (Kinzl, Traweger, & Biebl, 1995; Sarwer & Durlak, 1996; Silva et al., 2000).

Another variable to consider is the nature of intra-familial versus extra-familial maltreatment. Researchers have posited that specific dysfunctional family factors are more common in families that have experienced extra-familial or intra-familial maltreatment. The literature is still mixed whether risk of dysfunction is due to an interaction between family environment and maltreatment or due solely to maltreatment or a dysfunctional family. Overall, the specific role family functioning plays in the relationship between maltreatment and functioning remains unclear.

Several limitations exist with most studies of family functioning and maltreatment. Most researchers have not studied family factors as mediators of the maltreatment experience, whereas studies that have examined such variables contained inadequate samples or statistical procedures. These studies did not specifically address family environment variables as risk or protective factors. Furthermore, most studies contained predominantly European-American adult college females that deemphasized ethnic and racial differences.

An additional limitation of family environment and maltreatment studies concerns retrospective data of an event that occurred years before the study. Other types of maltreatment besides CSA, as well as impact of family functioning on immediate coping after a trauma, need to be studied more adequately as well. Effects of maltreatment coupled with the influence of family environment on immediate functioning have not been investigated among ethnically and racially diverse adolescents.

Most traditional studies on maltreatment effects examined an array of symptoms, when the effects of maltreatment are best conceptualized within a PTSD symptomatology framework. Children and adolescents who experience maltreatment or witness domestic violence are at risk of developing PTSD and related symptoms (Linning & Kearney, 2004; Silva, Alpert, Munoz, Singh, Matzner, & Dummit, 2000). PTSD symptoms appear to be highly related to the effects of maltreatment. Further, many researchers are attempting to explain factors involved in PTSD development and maintenance in children and adolescents.

As demonstrated in many studies, family environment may influence the development of long-term psychological difficulties related to maltreatment (Kinzl et al., 1995; Sarwer & Durlak, 1996; Silva et al., 2000). Family environment may also influence the development of an anxiety disorder such as PTSD and may partially explain why some youths develop PTSD and related PTSD symptomatology (Higgins et al., 2003). Further, PTSD appears to be associated with several related symptoms that may also contribute to the disorder's development and maintenance (Lemos-Miller & Kearney, 2006). To better understand why some youths are more prone to developing PTSD symptoms, these related symptoms need to be further examined using advanced

statistical methods. To fully understand all the aspects involved in youth PTSD, these related symptoms and risk and resilient factors such as family environment need to be studied in relation to maltreatment.

PTSD and PTSD-related symptoms

Although not all traumatized youths develop psychological ailments, some of the more common general psychological deficits associated with child trauma and maltreatment include biological differences (e.g., abnormalities in brain systems), emotional and cognitive deficits such as dissociation, depression, anger, and more faulty cognitive processes (Bremner, Davis, Southwick, Krystal, & Charney , 1993a; Finkelhor, 1990; Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004; Lipschitz et al., 2005; McLeer et al., 1988; Wolfe et al., 1994). Furthermore, within the child maltreatment literature, one of the more common psychological diagnoses applied to maltreated youths is PTSD and subclinical PTSD symptoms. The development of PTSD in maltreated youths is often comorbid with other problems such as depression, separation anxiety, general anxiety, substance abuse/dependence, overall internalizing and externalizing symptoms, and eating disorders (Dixon et al., 2005; Kiser et al., 1991; Linning & Kearney, 2004; McLeer et al., 1988; McLeer et al., 1998).

In particular, depressive and dissociative symptoms, anger, and faulty cognitions are most often linked to PTSD presentations (Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004). Many researchers theorize that these related symptoms are associated with the development and maintenance of PTSD symptoms in youths (Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004). Related to these past research findings,

subsequent sections will focus on the comorbidity of such symptoms with PTSD in youths.

PTSD and depressive symptoms. Maltreated adolescents exhibit higher levels of depressive symptoms (e.g., sadness, hopelessness, etc.) compared to non-maltreated adolescents (Allen & Tarnowski, 1989; Sadowski et al., 2003; Toth, Manly, & Cicchetti, 1992). Increased comorbid depressive symptoms often occur in adolescents with PTSD compared to adolescents without PTSD (Lipschitz et al., 2005; Richert, Carrion, Karchemskiy, & Reiss, 2006; Saigh, 1989). Among incarcerated female adolescents, those with PTSD were more often diagnosed with depression compared to those without PTSD (Dixon, Howie, & Franzcp, 2005). Furthermore, female adolescents with PTSD more often reported suicide attempts compared to those without PTSD. Most females with PTSD developed depression after or at the same time of onset of PTSD. The authors demonstrated that the development of PTSD may be a catalyst for subsequent depressive symptoms in traumatized adolescent females.

Other researchers have documented more frequent depressive symptoms in maltreated adolescents with PTSD compared to maltreated adolescents without PTSD (Wolfe, Sas, & Wekerle, 1994). Among non-clinical sexually maltreated children and adolescents with PTSD, approximately 31% met criteria for depression and 10% met criteria for dysthymia (McLeer et al., 1998). These children also reported more depressive symptoms compared to clinical, non-maltreated youths and non-clinical, non-maltreated youths.

Feeny and colleagues (2000) found depressive symptomatology to be a predictor of chronic PTSD symptoms. The results were from data regarding traumatized adult

females. Lemos-Miller and Kearney (2006) further noted that depression is a key variable in overall PTSD symptoms in adolescents. Depression mediated the relationship between PTSD and PTSD-related symptoms, which were dissociative symptoms and trauma-related cognitions. Depressive symptoms seemed to highly influence the presentation of trauma symptoms in adolescents. Similar studies should document the relationship of depression to PTSD in adolescents.

PTSD and dissociative symptoms. Various pathological dissociative experiences (e.g., dream-like or fantasy states, feeling disconnected from one's body, etc.) are reported by children and adolescents with histories of maltreatment (Brunner, Parzer, Schuld, & Resch, 2000; Plattner et al., 2003; Putnam, 1996; Silberg, 2000). Multiple dissociative symptoms are often reported by individuals with PTSD compared to individuals without PTSD (Boon & Draijer, 1993; Bremner, Steinberg, Southwick, Johnson, & Charney, 1993b; Feeny, Zoellner, Fitzgibbons, & Foa, 2000; Lipschitz et al., 2005; van der Kolk et al., 1996).

Some researchers believe that PTSD and dissociative symptoms are inextricably linked (van der Kolk et al., 1996). In youths with histories of maltreatment, PTSD is often comorbid with extreme dissociative experiences and disorders (Berger et al., 1994; Coons, 1996). More dissociative symptoms are evident among individuals with current and lifetime PTSD compared to traumatized individuals without PTSD. Researchers report that individuals with PTSD have multiple types of dissociative experiences (Bremner et al., 1993b).

Feeny and colleagues (2002) found an association between increased dissociative symptoms and increased PTSD symptoms in female victims of sexual assault. Increased

dissociation also predicted more general social and functioning impairments. The authors posited that dissociation is a coping strategy in traumatized individuals but impedes recovery because these individuals are unable to fully and realistically process the traumatic event. Unfortunately, much of the PTSD literature concerning dissociation has involved adults.

Prominent researchers examining dissociation and trauma note that dissociative experiences are difficult to measure in children (Putnam, 1996). The difference between normative and pathological dissociative experiences is often unclear, especially in youth. Extensive empirical evidence documents pathological dissociative symptoms in youths with histories of childhood maltreatment, conflictual family environments, and severe stress (Brunner et al., 2000; Putnam, 1996; Silberg, 2000; van der Kolk, 1996b). Because pathological dissociation affects maltreated children and adolescents, more empirical studies are needed examining the relationship between PTSD and dissociation in youths.

PTSD and maladaptive cognitions. Children and adolescents with PTSD may be more likely to have negative beliefs surrounding their traumatic experience compared to traumatized youths without PTSD (Wolfe et al., 1994). For example, PTSD diagnoses and symptoms are related to more self-blame and guilt surrounding maltreatment (Feiring, Taska, & Chen, 2002; Vernberg et al., 1996; Wolfe et al., 1994). Not all youths who experience maltreatment endorse self-blame and guilt concerning their experience (Feiring et al., 2002). However, for those youths and adults who do, feelings of guilt or shame may independently contribute to PTSD status. This suggests that such

maladaptive beliefs concerning trauma may influence the development and maintenance of PTSD (Andrews, Brewin, Rose, & Kirk, 2000; Paunovic, 1998; Wolfe et al., 1994).

Attributions or beliefs surrounding maltreatment may contribute to a youth's reactions to the event and subsequently facilitate psychopathology (Feiring et al., 2002). For example, sexually maltreated youths who endorsed the most blame for the perpetrator exhibited less depressive symptoms compared to youths who assigned less perpetrator blame. Furthermore, more PTSD symptomatology occurred in children and adolescents who believed that maltreatment was partially due to their mother not being aware of the occurrence. Youths who engage in internal attributions, such as self-blame concerning maltreatment, tend to exhibit more PTSD and PTSD-related symptoms compared to youths who engage in less maltreatment-related internal attributions.

Ehlers and Clark (2000) proposed that particular types of trauma-related cognitions predict and maintain PTSD symptoms. Ehler and colleagues (1998) examined predictor and maintenance variables of PTSD among adults who experienced a traffic accident. Increased PTSD severity and chronicity was predicted by more negative interpretations of the trauma, more ruminations, more trauma suppression, increased dissociation during the trauma, and increased anger related to the trauma. Expanding on the Ehler et al. (1998) study, Mayou and colleagues (2001) also examined predictors of PTSD in adult victims of traffic accidents. Trauma-related cognitions such as rumination and negative trauma interpretations related to PTSD symptoms one-year post-trauma.

Ehlers and Clark (2000) posited that chronic PTSD is maintained by faulty information-processing of the trauma. An individual continues to sense threats in his external environment or believes that personal characteristics increase risk. Specific

cognitive mechanisms maintain this persistent sense of danger and threat. First, these individuals engage in faulty appraisals of a traumatic event. An example of a faulty appraisal is the belief that a personal action caused the trauma or that normal activities pose an unrealistic danger. After the trauma, these individuals avoid many everyday activities because of unrealistic fear and anxiety. An individual's avoidance maintains the unrealistic appraisal of being in danger or perceiving a current threat.

Second, individuals prone to chronic or severe PTSD negatively interpret behaviors, thoughts, and feelings that occurred after the trauma (Ehlers & Clark, 2000). These individuals may believe that other people reacted to them in an unsupportive or harsh way or that symptoms after the trauma indicate they are going crazy. Third, trauma-related appraisals lead to symptoms of fear, anger, guilt, shame, anxiety, and sadness.

Ehlers and Clark (2000) proposed that many individuals who develop PTSD believe the trauma threatened their sense of self. These individuals process the trauma memory in a fragmented and suppressive fashion, preventing the trauma from integrating in the autobiographical memory system. When these individuals try to recall the trauma, they recall distorted appraisals of the event. When subsequent PTSD symptoms are triggered, an individual copes in a non-functional manner by attempting to repress, numb, or avoid thoughts and emotions associated with the trauma. Unfortunately, these coping strategies maintain PTSD symptoms and prevent the individual from fully processing and integrating memories and thoughts surrounding the trauma event.

Ehlers, Mayou, and Bryant (2003) examined predictors of PTSD among children and adolescents who were victims of a traffic accident. Negative trauma-related appraisals related to PTSD severity and chronicity three and six months after the traumatic event.

Furthermore, individuals who reported incomplete information processing during the trauma exhibited more PTSD symptoms 3 and 6 months post-trauma. Unfortunately, the measure of incomplete information processing may not be comprehensive enough to measure trauma-related information processing. However, cognitive factors such as negative trauma-related appraisals, anger, and dissociation appear to predict and maintain PTSD in youths. Similar empirical studies should occur with maltreated youths.

PTSD and anger modulation difficulties. Emotional regulation patterns develop during childhood and relate to social, family, and peer influences (Zeman & Garber, 1996). Age differences in the ability to manage emotions such as sadness and anger exist. However, even younger elementary school children can regulate and control their emotional expressions to some extent. Difficulty regulating anger and sadness are associated with more internalizing symptoms (Zeman, Shipman, & Suveg, 2002). Children unable to adequately cope with angry feelings may be more prone to general internalizing and externalizing symptoms. Unfortunately, presentations of maltreatment and PTSD may also be associated with difficulties in emotional regulation (Sebre et al., 2004; van Der Kolk et al., 1996).

Along with general affective dysregulation, individuals with PTSD struggle with anger modulation (Andrews, Brewin, Rose, & Kirk, 2000; Ehlers et al., 2003; van Der Kolk et al., 1996). People with PTSD report more anger modulation and aggression problems compared to traumatized individuals without PTSD and individuals with lifetime diagnoses of PTSD. Furthermore, individuals with lifetime but not current PTSD continue to exhibit anger modulation difficulties compared to traumatized individuals without PTSD.

Initial PTSD research focused heavily on Vietnam veterans (Boulanger & Kadushin, 1986). PTSD presentations in combat veterans were coupled with increased aggression and anger (Chemtob, Hamada, Roitblat, & Muraoka, 1994; Gerlock, 1994; Novaco & Chemtob, 2002; Sutker, Corrigan, Sundgaard-Riise, Uddo, & Allain, 2002). Increased anger seems to predict subsequent diagnoses of PTSD from violent traumas in veterans and traumatized civilians (Brewin, Andrews, & Rose, 2000; Novaco & Chemtob, 2002).

Novaco and Chemtob (2002) hypothesized that PTSD-related anger in veterans may be explained by survival strategies. Individuals with PTSD become hypervigilant to sources of threat. Sources of threat begin to trigger anger, which lead to aggressive responses to the source of threat. Unfortunately, individuals with PTSD become overly sensitive to potential threat cues and may have difficulty modulating angry responses in ambiguous situations or may overinterpret ambiguous cues as sources of threat.

Feeny and colleagues (2000) reported that initial increased anger predicted more PTSD symptoms three months after a trauma experience among sexually assaulted females. The authors speculated that individuals who utilize anger as a trauma coping strategy do not fully process their trauma-related emotions or correctly interpret ambiguous stimuli. In similar fashion, children who utilize anger to cope with traumatic experiences may be more likely to maintain PTSD symptoms (La Greca, Silverman, Vernberg, & Prinstein, 1996; Vernberg, La Greca, Silverman, & Prinstein, 1996). Anger associated with a traumatic event may thus be associated with maintaining PTSD symptoms (Ehlers et al., 2003; Paunovic, 1998). Specifically, anger-related trauma may prevent an individual from realistically and completely processing the trauma (Feeny et

al., 2000; Paunovic, 1998). Additional studies should be conducted to explore the specific role of anger in PTSD development and maintenance.

Summary of studies examining PTSD and related symptoms. The development and maintenance of PTSD may relate to dissociation, depression, anger, and maladaptive cognitions (La Greca et al., 1996; Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004; Sutker et al., 2002; Vernberg et al., 1996). Youths and adults with PTSD diagnoses and symptoms consistently exhibit greater levels of depression, anger, dissociation, and maladaptive cognitions compared to those without PTSD (Andrews et al., 2000; Feeny et al., 2000; Sutker et al., 2002).

Lemos-Miller and Kearney (2006) implicated depression as a key variable in the relationship of PTSD and certain PTSD-related symptoms. Depressive symptoms mediated the relationship of dissociative symptoms and PTSD symptoms as well as maladaptive cognitions and PTSD symptoms. Unfortunately, few other researchers have specifically outlined the empirical relationship between PTSD-related symptoms and PTSD development and maintenance. Fewer researchers have explored these associations in maltreated youths.

Youths with PTSD are more likely to exhibit comorbid trauma symptomatology such as depressive and dissociative symptoms and increased anger and trauma-related cognitions. Some theorists and researchers posit that symptoms are inextricably linked to PTSD severity, maintenance, and development (Ehlers & Clark, 2000; Lemos-Miller & Kearney, 2006). However, why these youths are more prone to developing PTSD and PTSD-related symptoms is still partially unclear.

Although the exact mechanisms that link PTSD and PTSD-related symptoms are partially unknown, some evidence provides clues. To better understand the nature of child maltreatment, many theorists urge researchers to examine various ecological factors related to child development (Belsky, 1980, 1993; Bogenschneider, 1996). Exploring contextual factors possibly related to PTSD may yield more information about the link between PTSD and PTSD-related symptoms. As reviewed, family environment appears to influence youth reaction to trauma. An additional context which may influence a child's reaction to trauma is race/ethnicity (Lemos-Miller & Kearney, 2006).

Research Findings of Child Maltreatment and Trauma Symptoms in Diverse Populations

Some researchers posit that ethnic/racial differences exist in children's psychological reactions to maltreatment (Ards, Myers, & Malkis, 2003; Ashton, 2004; Garland, Landsverk, & Lau, 2003; Hanson et al., 2003; Lau, Huang, Garland, McCabe, Yeh, & Hough, 2006; Lemos-Miller & Kearney, 2006; Lu, Landsverk, Ellis-Macleod, Newton, Ganger, & Johnson, 2004; Needell, Brookhart, & Lee, 2003). Hanson and colleagues (2003) examined variables relating to disclosure of sexual maltreatment among African-American, European-American, and Hispanic adolescents. European-American adolescents more often disclosed experience(s) of sexual maltreatment compared to African-American adolescents. Hispanics' rates of disclosure did not significantly differ from European-American or African-American adolescents, suggesting that Hispanics may disclose more than African-American and less than European-American adolescents.

When examining contextual variables of sexual maltreatment (e.g., life threat, physical assault, ethnic/racial status), only African-American status predicted lower rates

of disclosure (Hanson et al., 2003). Certain contextual factors related to maltreatment did increase African-American adolescents' rate of disclosure, such as being female and maltreatment involving penetration. European-American adolescents' rate of disclosure increased with life threat and lack of physical injury during maltreatment. Unfortunately, variables that may have explained ethnic/racial differences in disclosure among African-American and European-American adolescents were not measured. Although ethnic/racial differences were noted, these findings could not be accurately explained.

African-American, Asian/Pacific Islander, European-American, and Hispanic youths aged 6-17 years were surveyed about maltreatment, parent-child conflict, parental support, and internalizing symptoms (Lau et al., 2006). Youths were from various county service agencies for youths and families, such as the child welfare system, juvenile justice, public school programs, and substance abuse treatment facilities. The Asian/Pacific Islander sample was composed of several subgroups such as Filipino, South East Asian, Pacific Islander, and East Asian. An overwhelming majority of Hispanics self-identified as Mexican. The Hispanic sample was also composed of other Hispanic and Puerto Rican youths.

Lau and colleagues (2006) were interested in what emotionally and physically punitive acts youths would label as emotional and physical maltreatment. Compared to European-American youths, Asian/Pacific Islanders who perceived their parents as more emotional and willing to use physically punitive discipline were less likely to perceive themselves as victims of emotional and physical maltreatment. Increased parental physical discipline related to all youths' perception of physical maltreatment victimization. Although differences occurred in Asian/Pacific Islanders' notion of

maltreatment compared to European-Americans, all youths demonstrated a relationship between internalizing symptoms and acts of emotional and physical discipline.

Further analyses indicated that race and ethnicity acted as moderators in certain situations (Lau et al., 2006). Hispanic and African-American ethnic/racial status strengthened the relationship between increased physical discipline and more internalizing symptoms. Hispanic and Asian-American youths also exhibited more symptoms associated with increased emotional discipline compared to European-American youths.

Causal conclusions cannot be made regarding Lau and colleagues' (2006) findings. However, other authors have noted that individuals from some Asian cultures (e.g., Korean) may be reluctant to label physical discipline as maltreatment, often hindering reports of many maltreatment incidents (Hahm & Guterman, 2001). The authors did provide evidence for possible racial/ethnic differences in perceptions of maltreatment and potential for harm from such maltreatment. Youth participants were involved in some type of county service program. Furthermore, differences existed in sample demographics. European-American participants were most likely recruited from treatment programs and school programs rather than child welfare services and juvenile justice compared to other participants. These differences could influence youth experiences and their perceptions of maltreatment.

Berton and Stabb (1996) specifically examined PTSD symptoms with respect to trauma exposure within a diverse sample of adolescents. Over 75% of the sample was female and the ethnic composition was African-American, European-American, Hispanic, and other. Adolescents were living in urban areas often affected by violent

events. Almost 30% of youths reported clinically significant PTSD symptoms. As expected, increased exposure to violent events predicted higher levels of PTSD symptoms. Interestingly, African-American males were more likely to reside in neighborhoods with increased exposure to violent acts compared to other youths. However, African-American youths did not endorse higher levels of PTSD symptoms compared to other youths.

Berton and Stabb (1996) examined contextual factors such as neighborhood violence, self-reported exposure to violence, and ethnicity. However, the study examined ethnicity via categorical labels rather than asking participants to identify the extent to which they identified with their ethnic/racial status. More sophisticated measures would have improved the validity of the study design. Additionally, the inclusion of measures examining family environment would give more information on variables influencing the development of PTSD symptoms in diverse youths.

Abram and colleagues (2004) studied PTSD symptom patterns in diverse male and female youths detained with juvenile justice. Over 90% of youths reported at least one trauma such as witnessing violence or personally experiencing physical maltreatment. Approximately 11% percent of youths reported clinically significant PTSD symptoms. Traumatic experiences that most often led to clinically significant PTSD were witnessing violence (for males) and having a close family member/friend threatened (for females).

Consistent with Berton and Stabb (1996), Abram and colleagues (2004) found African-American male youths to report more exposure to witnessing violent acts compared to European-American males. African-American, European-American, and Hispanics did not strongly differ in PTSD rates. The researchers used categorical and

forced choice ethnic/racial labels rather than specifically asking participants about their ethnic affiliation and valuation. By examining additional and more sophisticated variables such as family environment and ethnic identity, researchers may learn more about the development of PTSD symptomatology in diverse adolescents.

Few studies have involved Chinese-American, non-clinical youths and PTSD. Ozer and McDonald (2006) reported that 75% of adolescents reported recent incidents of witnessed or experienced community violence. Ozer and McDonald (2006) provided insight into how PTSD affects Chinese-American adolescents. Exposure predicted PTSD, self-reported depressive symptoms, and perpetration of violence. Interestingly, teacher observations of adolescent depression did not relate to self-reported PTSD or depressive symptoms. When Chinese-American adolescents are experiencing trauma-related difficulties, direct interviews may yield the best information concerning psychological functioning. Similar to other studies of youth PTSD, Ozer and colleagues (2006) did not specifically ask about maltreatment experiences, which may have occurred in some adolescents.

Several researchers examined the nature of trauma symptoms among children and adolescents exposed to Hurricane Andrew (La Greca, Silverman, Vernberg, & Prinstein, 1996; La Greca, Silverman, & Wasserstein, 1998; Perilla, Norris, & Lavizzo, 2002; Vernberg, La Greca, Silverman, & Prinstein, 1996; Wasserstein & La Greca, 1998). African-American, Asian-American, European-American, and Hispanic children in elementary school participated in research three months after the hurricane (Vernberg, La Greca, Silverman, & Prinstein, 1996). Most children reported significant PTSD symptoms. PTSD symptom patterns did not differ among ethnic/racial groups. For all

children, greater exposure to the hurricane, less social support, and negative coping strategies predicted PTSD development.

La Greca, Silverman, and Wasserstein (1998) examined PTSD symptoms three and seven months after Hurricane Andrew in elementary school aged children. The sample consisted of African-American, Asian-American, European-American, and Hispanic children. However, the sample sizes of the Hispanic (n = 11) and Asian-American (n = 1) youths were very small. Interestingly, these children were involved in a study before Hurricane Andrew, providing the authors with information on the children's pre-hurricane functioning. Approximately 33% and 11% of the children experienced moderate to severe PTSD symptoms three and seven months after the hurricane, respectively. African-American children reported more PTSD symptoms seven months after the hurricane compared to European-American and Hispanic youths. The latter finding was not apparent three months after the hurricane and continued to be evident after controlling for exposure to the hurricane. Specifically, seven months after the hurricane, African-American children exhibited similar levels of PTSD symptoms compared to three months after the hurricane.

In a similar study of elementary school aged children affected by Hurricane Andrew, additional ethnic/racial differences were apparent (La Greca et al., 1996). African-American and Hispanic children exhibited more PTSD symptoms compared to European-American children. Unlike European-American youths, African-American and Hispanic youths continued to report significant PTSD symptoms at 3-, 7-, and 10-months post-Hurricane Andrew. Researchers theorized that factors related to ethnic minority status may have influenced the symptom presentation of Hispanic and African-

American youths. For example, ethnic minority groups may have had less economic resources and were more financially affected by the disaster compared to European-American victims.

Adolescents were interviewed six months after experiencing Hurricane Andrew (Garrison, Bryant, Addy, Spurrier, Freedy, & Kilpatrick, 1995). Concerning PTSD symptoms, African-Americans reported greater avoidance symptoms compared to European-American and Hispanic adolescents. Furthermore, rates of PTSD symptoms differed according to ethnicity/race, with African-Americans reporting the most symptoms followed by Hispanics. European-American adolescents reported the lowest rate of PTSD symptoms. The researchers did not control for exposure to disaster-related traumas, which could have influenced differences among ethnic/racial groups.

Jaycox and colleagues (2002) studied trauma experiences, PTSD, and depression among recently emigrated children aged 8-15 years. Most youths had emigrated from Latin countries (e.g., Mexico, El Salvador, Guatemala, and Central/South America) but 12% did so from other countries (e.g., Korea, Russia, Armenia). Although boys reported more exposure to violence, females were more likely to exhibit depressive and PTSD symptoms. For males and females, increased exposure to trauma was associated with more PTSD and depressive symptoms.

The authors found that many youths experienced traumatic events (Jaycox et al., 2002). Furthermore, one-third of children met diagnostic criteria for PTSD. The authors noted that these children were not selected because they had histories of trauma but that the youths represented a general sample of emigrated children. The authors posited that

recently emigrated youths may be at risk for experiencing trauma and subsequently developing PTSD more than mainstream youths.

Jaycox and colleagues' (2002) conclusions may have been better supported by a control group of non-emigrated children. In a related study by the same authors, most emigrated children with PTSD and depressive symptoms were successfully treated with a school-based treatment program based on cognitive-behavioral techniques (Kataoka et al., 2003). The authors noted that parents appeared more comfortable with mental health services because the services were incorporated into the school, reducing some of the stigma associated with receiving therapy.

Mennen (1995) noted that sexually maltreated Hispanic females who had experienced more intrusive maltreatment such as penetration may demonstrate more severe trauma symptoms compared to Hispanic females reporting less intrusive sexual maltreatment. Researchers interviewed African-American, European-American, and Hispanic girls (aged 6-18 years) receiving services at mental health treatment centers about symptoms associated with their sexual maltreatment. African-American and European-American girls did not demonstrate differential symptom patterns associated with maltreatment. The author speculated that Hispanic females experience more pressure within the family to maintain sexual purity, which could influence differential symptom patterns. Including measures relating to cognitions and beliefs associated with maltreatment may have lent credence to the author's conclusions.

Most studies examining child sexual maltreatment feature females. Interestingly, Moisan, Sanders-Phillips, and Moisan (1997) examined trauma symptoms associated with sexual maltreatment among African-American and Hispanic adolescents. One study

limitation concerning generalizability of results was that males were from juvenile justice facilities and mental health treatment programs. Seventy percent of the Hispanic sample was born outside of the United States. Most boys were violated by nonfamily members. However, African-American males were more likely to experience maltreatment by an immediate family member compared to Hispanic males, who more often experienced maltreatment by an extended family member.

Most boys also reported that the perpetrators utilized forceful acts during maltreatment (Moisan, Sanders-Phillips, & Moisan, 1997). Compared to African-Americans, Hispanic boys reported that perpetrators more often relied on offering bribes and/or reminding youth of the perpetrator's position of authority to induce compliance with maltreatment. Over half the boys believed they did not receive much parental support after disclosing maltreatment. Regarding symptom patterns, Hispanic males more often reported feeling anhedonia, hopelessness, and loneliness compared to African-American males. Hispanic males also reported more symptoms associated with poor self-concepts compared to African-American males.

African-American males more often reported symptoms associated with somatization, crying spells, and anger compared to Hispanic boys. Anger was also associated with closer relationships with the perpetrator. However, African-American racial status also contributed independently to anger. The authors noted that Hispanic males are more at risk for maltreatment by extended family member(s) due to increased contact with these individuals compared to African-Americans. While differential symptom patterns were noted between African-American and Hispanic boys, the authors

could not fully explain the results. Future researchers should include measures of family environment and cultural beliefs to more accurately examine these differences.

Continuing to examine risk variables within diverse maltreated youths, Taussig (2002) administered youth measures to adolescents initially placed in foster care and 6 months later. Initial maltreatment related to later engagement in problem behaviors. As in Taussig and Talmi (2001), African-American youths reported very low levels of deliberate self-harm compared to European-American and Hispanic youths. However, Hispanic maltreated youths reported more self-harm compared to European-American adolescents. Over time, youths were more likely to engage in problem behaviors when they reported less support by classroom peers but greater social acceptance. Unfortunately, the social acceptance measure did not differentiate acceptance by deviant or prosocial peers who may or may not be in a youth's classroom.

Researchers assessed low-income maltreated and nonmaltreated Hispanic children regarding psychological functioning (Flores, Cicchetti, & Rogosch, 2005). Measures of prosocial behavior, aggression, and withdrawal assessed resilience. Maltreated children demonstrated more aggression, more internalizing and externalizing symptoms, less prosocial behaviors, and less overall resilient functioning than nonmaltreated youths. Maltreated youths also exhibited other issues such as more emotional dysregulation and relationship issues and less emotional and behavioral resilience. Increased regulation over behavioral and affective states related to better resilient functioning among all youths.

Among maltreated Hispanic children, the ability to regulate one's behavioral and affective states may best contribute to better psychological functioning and resiliency

even more so than developing a close relationship with prosocial adults (Flores et al., 2005). Although the study included nonmaltreated Hispanic youths, youths from other ethnic/racial groups were not included. How these findings relate to youths from other ethnic/racial groups is unknown. Similar to other studies, assessments of acculturation or ethnic identity may provide better insight into how or if ethnicity influenced results.

Researchers examined racial and ethnic factors regarding PTSD and PTSD-related symptoms among diverse maltreated youths (Lemos-Miller & Kearney, 2006). African-American and multiracial ethnic/racial status moderated a relationship between PTSD and depression symptoms. However, differential symptom patterns were noted depending on race/ethnicity. For example, African-Americans displayed less depressive symptoms in association with more PTSD symptoms compared to European-American, Hispanic, and multiracial youths. Conversely, multiracial adolescents exhibited more depressive symptoms associated with more PTSD symptoms compared to African-American, European-American, and Hispanic adolescents. Certain racial and ethnic statuses thus appeared to influence effects of maltreatment.

This study provided preliminary information on effects of trauma in multiracial youths (Lemos-Miller & Kearney, 2006). The authors speculated that multiracial youths may experience more conflict regarding their ethnic/racial status, putting these adolescents at risk for more depression while experiencing PTSD symptoms. Conversely, African-American adolescents often receive support from various sources such as immediate and extended family members. Such relationships possibly protect African-American youths from significant depressive symptoms associated with PTSD. Very few other studies involving child maltreatment have examined multiracial youths.

Including a measure of ethnic identity to better conceptualize race/ethnicity would certainly advance the field.

Summary of child maltreatment and trauma symptomatology in diverse populations. Diverse youths are often absent in most child maltreatment studies (Rabalais, Ruggiero, & Scotti, 2002). As such, researchers are still striving to understand effects of trauma in diverse youths. However, the little research regarding ethnicity, race, and maltreatment is mixed.

Some researchers also have reported scant differences in prevalence rates of PTSD among various ethnic/racial groups (Abram et al., 2004; Adams, & Boscarino, 2005; Berton & Stabb, 1996; Montoya, Covarrubias, Patek, & Graves, 2003). Ethnicity and race may not influence the prevalence of PTSD, but variables related to ethnicity and race, such as family traditions or ethnic identity, may influence the development of trauma symptomotology (Abram et al., 2004; Berton & Stabb, 1996). Measuring specific cultural attitudes and socialization practices may best examine race, ethnicity, and maltreatment (Korbin, 2002). Korbin (2002), Fontes (2001), and Cohen and colleagues (2001) advocated cultural competence in treating maltreated children and adolescents. Ethnicity may influence a youth's response to trauma, and subsequent treatments should be based on culturally acceptable or culturally amenable strategies.

Unfortunately, specific and empirically-based information about ethnicity and race, maltreatment, and subsequent treatment is not readily available (Behl, Crouch, May, Valente, & Conyngham, 2001; Cohen, Deblinger, Mannarino, & Arellano, 2001). Much of the child PTSD literature does not specifically examine child maltreatment but often focuses on general community violence or natural disasters (Jaycox et al., 2002; La

Greca et al., 1996; La Greca et al., 1998; Ozer & McDonald, 2006). Child maltreatment is a salient trauma.

Many studies of maltreatment lack statistical power to detect potential practical effect sizes, use race/ethnicity as an extraneous variable to be controlled, or crudely measure race and ethnicity (Berton & Stabb, 1996; Cohen et al., 2001; Fontes, 2001; Korbin, 2002). The most advanced studies that do examine ethnicity and race vis-à-vis child maltreatment often fail to measure cultural values, acculturation, or ethnic identity in relation to trauma symptoms (Flores et al., 2005; Moisan et al., 1997). Using ethnicity/race as a simple nominal demographic variable and subsequently attempting to interpret ethnic/racial differences is a crude and limited way of examining potential differences or similarities among groups. To provide more culturally competent services to diverse maltreated youths, more research should be conducted within an ecological model on risk and resilient factors within and across ethnic groups (Behl et al., 2001; DeBruyn, Chino, Serna, & Fullterton-Gleason, 2001; Flores et al., 2005; Korbin, 2002; Rabalais et al., 2002).

Family Environment, Child Maltreatment, and Trauma Symptoms: Cultural Findings

Few studies empirically or comprehensively examine the relationship between maltreatment or trauma and its possible subsequent pathology in diverse adolescents. The extensive literature on family environment and maltreatment supports the notion that family environment plays a key role in effects of maltreatment and trauma (Edwards & Alexander, 1992; Gold, 2000; Nash et al., 1993; Overstreet et al., 1999). Conversely, research examining family environment and maltreatment with respect to ethnicity/race or ethnic identity is limited.

Numerous researchers have pointed out that family dynamics, values, and structure are often shaped by culture and race (Boyd-Franklin, 2003; McGoldrick, 2003; Okun, 1996; Organista, 2003). For example, Terao and colleagues (2001) encouraged child welfare professionals working with diverse clients to assess family acculturation and become knowledgeable about cultural norms before deciding how to treat a family. If a family is not highly acculturated to the United States, for example, psychoeducation can help parents understand American laws regarding childrearing. If a family is highly acculturated, then psychotherapeutic interventions such as learning more specific skills involving parenting and disciplinary models may be appropriate.

The guidelines proposed by Terao and colleagues (2001) are only suggestions because intervention will depend on several family characteristics and childcare beliefs. Sophisticated empirical studies also need to be done with families and children in the child welfare system. With this in mind, the following section reviews research relating to race, ethnicity, and trauma in association with family environment.

Trauma Symptoms Influenced by Race, Ethnicity, and Family Environment

Maltreated African-American, European-American, and Hispanic adolescents were examined for risk factors contributing to the development of various problem behaviors such as delinquency, substance use, deliberate self-harm, and risky sexual behaviors (Taussig & Talmi, 2001). On most measures, European-American and Hispanic youths exhibited similar symptom patterns. For instance, higher levels of problems behaviors were predicted by several risk factors such as trauma symptomatology (associated with maltreatment), involvement with deviant peers, lower self-esteem, and lower parental involvement. Regarding African-American youths, however, trauma symptoms were

associated with more delinquent behaviors and involvement with deviant peers (Taussig & Talmi, 2001).

The Taussig and Talmi (2001) findings demonstrated that trauma, in particular maltreatment, does negatively affect youths. However, the manner in which trauma affects youths may slightly differ depending on race/ethnicity. Unlike findings associated with African-Americans, European-American and Hispanic adolescents exhibited similar risk behaviors associated with trauma symptoms with the exception of sexual behaviors. Unlike European-Americans, Hispanic youths did not engage in more sexual behaviors with increased trauma symptoms. More problem behaviors related to lower levels of parental monitoring in Hispanic youths. Unfortunately, the previous study did not examine what risk factors were associated with the development of trauma symptomatology.

Maltreated youths in families with a parent with a mental disorder exhibit high levels of aggression and depression compared to maltreated children without a parent with mental disorder (Downey & Walker, 1992). In contrast, nonmaltreated children in families with a parent with a mental disorder exhibited significantly lower levels of depressive and aggressive symptoms. Further, PTSD symptoms appear to be exacerbated by parental psychological distress (Self-Brown, LeBlanc, Kelley, Hanson, Laslie, & Wingate, 2006). Research results concerning children affected by the Buffalo Creek Disaster have also supported a relationship between trauma symptoms and family factors (Korol, Kramer, Grace, & Green, 2002). Negative family environments and parental reactions to the disaster contributed to PTSD development in youths. Negative

family environment factors, coupled with maltreatment or trauma experiences, may place a child at significant risk of developing trauma-related symptomatology.

A large-scale study examined suicidal ideation and trauma symptoms of maltreated and at-risk youths (Thompson et al., 2005). In addition to trauma, family factors such as parental mental health issues and low family cohesion were related to suicidal ideation. Furthermore, African-Americans were less likely to exhibit suicidal ideation than European-American children. The authors proposed that family factors influenced the development of symptomatology through child variables such as social skills or substance use.

Among African-American children exposed to community violence, 33% reported significant PTSD symptoms and 11% reported clinical-level depressive symptoms (Overstreet, Dempsey, Graham, & Moely, 1999). A strength of this study was examination of family variables such as mother's presence in the home and family size with respect to depression and PTSD symptoms. These family factors acted as moderators in the relationship between violence exposure and depressive symptoms.

African-American children without maternal support and in smaller families were at greater risk of developing depressive symptomatology (Overstreet et al., 1999). In contrast, family factors as well as violence exposure predicted PTSD symptoms. Overstreet and colleagues (1999) examined family factors relating to support but did not examine family dynamics that may influence symptom expressions after trauma. Furthermore, whether family environment variables act as moderators, mediators, or predictors in the relationship between trauma and PTSD and related symptoms is unclear.

The use of a diverse sample was encouraging, but including one racial group did not allow ethnic comparisons vis-à-vis the role of culture in trauma expressions.

Multiethnic children in high risk neighborhoods were examined regarding parental conflict, parenting, and internalizing and externalizing symptoms (Gonzales, Pitts, Hill, & Roosa, 2000). The sample consisted of African-American (8%), European-American (6%), Native-American (4%), other (1%), and low-acculturated Mexican-American (81%) youths. Conflict between parents was associated with youth depression and conduct-like symptoms. However, the relationship between parental conflict and symptoms was strongly mediated by parenting behaviors such as inconsistent or improper disciplinary practices. Parenting styles can thus greatly foster or prevent the development of psychological symptoms in children.

Trauma and trauma symptoms were explored among European-American, Hispanic, and African-American adult females who experienced child sexual abuse (Andres-Hyman, Cott, & Gold, 2004). Hispanic females reported less intrusive PTSD symptoms than other ethnic/racial groups. The authors suggested that Hispanic ethnicity protected this group from more severe psychological symptoms after trauma, possibly due to cultural factors such as increased support. No other ethnic or racial differences on PTSD scores were noted. Authors did not measure ethnic identity and family factors, leading to speculation of participants' cultural values when interpreting results. Furthermore, the sample sizes of the ethnic groups were unequal.

Shaw and colleagues (2001) examined trauma symptoms and sexual maltreatment among African-American and Hispanic-American youths, some of whom experienced other types of maltreatment as well. The importance of this study is inclusion of

measures of family functioning and parental support. African-American girls more often experienced maltreatment while at a non-family member's home and experienced more father/stepfather abuse and intercourse. In contrast to many African-American girls, Hispanic-American girls reported greater incidents of maltreatment at home, experiencing fellatio or genital contact, and more overall incidents of maltreatment.

Parental reports of symptoms also demonstrated that Hispanic-American females exhibited more externalizing and internalizing symptoms than African-American girls, even after controlling for family environment (Shaw et al., 2001). Hispanic-American families were more controlling and conflictive, less adaptable, and less adhering to traditional cultural values compared to African-American families. Despite general differences in family perception, maternal support seemed comparable between both groups.

Shaw and colleagues (2000) considered the possibility that Hispanic-American girls were more symptomatic after sexual maltreatment due to Hispanic-based importance on maintaining virginity, and that girls felt more responsible and guilty for the experience. Many strengths were inherent in this study, including controlling for family environment and examining age differences. However, the researchers did not specifically explain how or if family or cultural attitudes influenced symptoms.

Elementary school-age African-American, European-American, and Hispanic children were examined three months after experiencing Hurricane Andrew (Wasserstein & La Greca, 1998). Children completed measures about their perception of their parent's marital conflict, anxiety, and PTSD. Parental marital conflict moderated the relationship between Hispanic ethnicity and PTSD symptoms.

Hispanic children who perceived high levels of parental marital conflict reported more PTSD symptoms compared to Hispanic children who perceived low parental marital conflict (Wasserstein & La Greca, 1998). The latter finding was not evident in African-American and European-American children. Additionally, Hispanic children who perceived high parental marital conflict exhibited more PTSD symptoms compared to European-Americans who perceived high parental marital conflict. The authors posited that negative family relationships put all youths (especially Hispanic children) at risk for poorer psychological functioning following trauma.

Researchers explored sexual maltreatment effects between African-American and Hispanic-American girls at a child abuse clinic (Sanders-Phillips, Moisan, Wadlington, Morgan, & English, 1995). Hispanic-American girls reported less maternal support after maltreatment disclosure and more family conflict than African-American girls. Furthermore, specifics of the abuse severity were more highly correlated with depression and family conflict for Hispanic-American girls. Family conflict predicted the development of depressive symptoms after abuse in African-American and Hispanic-American girls. However, Hispanic-American females may receive less familial support after severe maltreatment, which may foster additional feelings of family conflict, depression, and guilt.

Other researchers attempted to more specifically study variables of diverse families and trauma symptoms. Among predominately Hispanic, female undergraduates, psychological effects of witnessing parental violence were examined with family environment as a key variable (Davies, DiLillo, & Martinez, 2004). Factors such as child maltreatment did not contribute significantly to depression, PTSD-related symptoms, or

lowered self-esteem. However, domestic violence strongly influenced subsequent symptomatology. Exposure to domestic violence contributed to posttraumatic stress symptoms even after family environment and maltreatment variables were controlled. Although this study contributed to literature on effects of domestic violence in adulthood, several limitations arose. The only variable of family environment mentioned was conflict. Furthermore, although the authors attributed their findings to Hispanic females, 20% of the sample consisted of European-Americans, African-Americans, or other ethnicities.

The psychological effects of sexual maltreatment were examined among African-American, European-American, and Hispanic-American pre-adolescents (Feiring, Coates, & Taska, 2001). African-American youths reported high levels of parental support regarding maltreatment compared to other children. Furthermore, Hispanic-Americans were more likely to experience maltreatment by a parental perpetrator and reported less support regarding severe maltreatment. In cases of intra-familial maltreatment, Hispanic mothers may feel conflicted about abuse and strive to maintain family unity.

Empirical evidence indicates that healthy family environments may protect against trauma in diverse youths (Howard et al., 2002; Kaslow et al., 2003). Conversely, unhealthy family environments may be a risk factor. For example, African-American adolescents witnessing violence demonstrated more PTSD emotional numbing symptoms when their family environment lacked healthy communication skills (Howard et al., 2002). Poor family communication skills were also predictive of traumatized youths' poor sense of belonging and other PTSD symptoms.

Researchers assessed child functioning in relation to mother distress and family factors among African-American youths whose mothers experienced domestic violence (Kaslow et al., 2003). Children with mothers not victimized by domestic violence demonstrated less internalizing symptoms than children whose mothers were victims of domestic violence. When mothers reported greater levels of psychological distress, children exhibited more internalizing and externalizing symptoms compared to children with less distressed mothers. Mothers who reported more cohesive and adaptable families reported less psychological distress. Healthy family and neighborhood characteristics directly and indirectly related to lower psychological difficulties in African-American children.

The Kaslow et al. (2003) and Howard et al. (2002) studies provided evidence for the notion that African-American children can have healthy psychological functioning despite traumatic experiences. However, child psychological functioning depends on risk and resilient factors in a child's family and neighborhood environments. Unfortunately, these studies only examined African-American children and adolescents who resided in low-income communities. Furthermore, the Howard et al. study did not examine ethnic identity, which also relates to belongingness (Phinney, 1992) and may have better explained some of the study findings.

Among Southeast Asian refugee adults in the United States, participants were placed in a non-PTSD or PTSD group (Abe, Zane, & Chun, 1994). Southeast Asians who developed PTSD exhibited higher levels of maladjustment, depression, anger, and somatic symptoms than those without PTSD. When examining the life experiences of both groups, few significant differences were noted. However, Southeast Asians who

developed PTSD reported lower levels of preserving cultural practices and beliefs than those without PTSD.

Researchers interviewed adults six months after Hurricane Andrew concerning trauma symptoms (Perilla et al., 2002). The sample was balanced by ethnicity and gender, with fairly equal numbers in each group. African-American, European-American, and Hispanic adults participated. Most Hispanics preferred to conduct the interview in Spanish. Spanish-speaking Hispanics reported highest levels of PTSD symptoms compared to other groups, including English-speaking Hispanics, possibly indicating that low-acculturated adults have more difficulty coping with trauma.

PTSD symptom endorsement was higher among African-Americans and Hispanics than European-American adults (Perilla et al., 2002). Hispanics reported more intrusive symptoms and African-Americans reported more arousal symptoms compared to other groups. European-Americans were also less likely to endorse intrusive and avoidance symptoms compared to African-American and Hispanic participants. The authors noted that exposure to trauma may have influenced PTSD symptom rates. The ethnic/racial minority participants resided in neighborhoods more negatively affected by the hurricane compared to European-Americans.

Perilla and colleagues (2002) also examined cultural beliefs and acculturative stress in the development of PTSD. PTSD symptoms were partially predicted by increased fatalism, more acculturative stress, and less endorsement of familism. Fatalism involves feeling that life situations are influenced by factors outside of one's control. Familism was most endorsed by Hispanic participants. However, African-American and Hispanics showed stronger familism compared to European-Americans. Fatalism was also more

strongly endorsed by minority groups and, especially, Spanish-speaking Hispanics. The ages ranged from young adults to elderly individuals, which limit the study's generalizability to adolescents.

Summary of trauma symptoms influenced by race, ethnicity, and family environment. Some studies have examined family functioning regarding trauma in diverse adolescents. However, many of these studies are imprecise and failed to specifically examine how various aspects of family functioning hinder or promote trauma symptomatology. For example, some studies measured only a few dimensions of family and youth functioning. Studies examining youth functioning within risk and protective models may be the most precise way to examine the influence of family functioning on child development. Unfortunately, research concerning the effects of child maltreatment in diverse youths is largely unfocused. Further, few studies involve specific examinations of trauma symptomatology such as PTSD and related trauma symptoms.

The study of adolescent trauma reactions using diverse samples is important so researchers and clinicians can competently and sensitively assist all youths affected by trauma. However, trauma studies with diverse youths consistently fail to include ethnic identity or acculturation measures. Ethnic identity and acculturation often interact with family variables and may directly or indirectly influence adolescent psychological functioning (Brook et al., 1998; Marsiglia et al., 2004).

Perilla, Norris, and Lavizzo (2002) found that acculturative stress and certain cultural attitudes contributed to PTSD symptoms in adults. Similar studies need to occur with adolescents. Failing to examine functions of ethnic identity and family environment in the development of youth symptomatology prevents researchers from being fully

knowledgeable when working with diverse youths affected by trauma. Further, one's family-of-origin influences child development and individual coping skills (Bronfenbrenner, 1994). Ethnic identity and family environment variables may influence a youth's reaction to, and interpretation of, extreme stressors such as maltreatment. Exploring the potential of ethnic identity and family environment variables as risk or resilient factors for child maltreatment effects will help psychologists better understand the nature of adolescent trauma reactions.

Summary of Family Environment and Cultural Influences Related to Trauma Symptomatology

Family functioning acts as a risk or resilient factor in youth psychological development (Burton & Jarrett, 2000). Many research models examining family functioning in relation to youth outcome rely on ecological frameworks (Bronfenbrenner, 1994). Using a framework based in family adaptability theory, Craine, Hanks, and Stevens (1997) proposed that PTSD symptoms relate to family factors and context. Negative family environment and child maltreatment variables may interact to influence later pathology (Carlson, Dalenberg, Armstrong, Daniels, Loewenstein, & Roth, 2001; Nash, Hulsey, Sexton, Harralson, & Lambert; 1993).

Family reactions to an individual family member's trauma will inevitably affect how that person copes with the event (Craine et al., 1997). Indeed, resilient, flexible, accepting, supportive, and stable families may foster a quicker recovery from trauma than less adaptable families (Conte & Schuerman, 1987; Nash et al., 1993; Williamson, Borduin, & Howe, 1991). According to Craine, Hanks, and Stevens (1997), clinicians

should see that PTSD affects all family members and examine family factors that maintain PTSD and related symptoms.

Although many similarities exist among families cross-culturally, some family functioning depends upon cultural beliefs and values (Chao, 2001; Gorman-Smith et al., 2000). Unfortunately, the literature base concerning how family environment relates to youth functioning in maltreated ethnically/racially diverse youths is relatively new and not concise. Although child maltreatment researchers understand the importance of race, ethnicity, and culture in youth reaction to trauma, extant studies are few.

Many protective family processes are similar cross-culturally, but specific cultural factors such as acculturation and ethnic identity do influence youth functioning, attitudes, and perceptions (Eamon & Mulder, 2005; Heras & Revilla, 1994; Phinney & Onwughalu, 1996; Romero & Roberts, 1998). Ethnic identity is a component of acculturation (Phinney, 2003). Ethnic identity does influence one's affiliation with, and endorsement of, cultural values, behaviors, and attitudes (Phinney, 1990).

Evidence exists that cultural variables such as ethnic identity may buffer against negative psychological symptoms (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Mossakowski, 2006; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2006; Wong et al., 2003). However, such studies have often focused on African-Americans and involve the protective nature of ethnic identity vis-à-vis discrimination. Other studies featuring Hispanics focus on acculturation in relation to deviant behaviors (Marsiglia et al., 2004). These studies do support the role of ethnic identity as a possible protective factor. Although ethnic identity appears to be an important variable in

adolescent development and functioning, child development researchers have been slow to incorporate ethnic identity measures in research with diverse adolescents.

Certain groups of ethnic/racial minorities are overrepresented in the child welfare system (Lau et al., 2003). To better address this issue and fully assist children and families involved in this system, greater cultural competence is needed. Although cultural competence continues to be encouraged in the conceptualizations, research, assessment, and treatment of maltreated youths, little empirical knowledge is available to help psychologists gain competency (Terao et al., 2001). Rabalais and colleagues (2001) urged authors' to better examine specific moderating or mediating influences of culture in effects of maltreatment.

Fortunately, some researchers have begun to examine racial/ethnic differences among maltreated youths. However, these studies fail to adequately measure race/ethnicity or they continue to focus only on PTSD symptom rates or characteristics of the maltreatment experience. These studies do not inform psychologists about how specific ethnic and racial variables influence trauma symptoms.

To develop cultural competency with child welfare populations and to fully understand maltreatment in diverse adolescents, studies need to be conceptualized according to existing child development theories. Viewing the influence of maltreatment in models of risk and protection may help psychologists understand variables that moderate or mediate diverse youth's trauma symptoms. However, studies exploring how risk and resilient variables influence diverse youth functioning after child maltreatment are rare. To explore risk and protection influences in presentations of PTSD and related

symptoms after trauma, family and cultural variables such as acculturation or ethnic identity should be included in studies of traumatized, diverse youths.

Purpose of the Study

Research studies concerning racial and ethnic comparisons of traumatized youths are increasing. However, many studies fail to examine the development of relevant trauma symptomatology (e.g., PTSD, depression, dissociation, anger, negative cognitions) and risk and protective factors such as family factors and level of acculturation or ethnic identity (Behl, Crouch, May, Valente, & Conyngham, 2001; Flores, Cicchetti, & Rogosch, 2005; Taussig & Talmi, 2001). In addition, those studies that do consider ethnicity, race, and culture continue to measure these variables in unsophisticated ways. Studies that examine the influence of ethnicity and race using unstandardized methods may yield invalid and skeptical results and conclusions. Valid measures of ethnic identity must be included in culturally diverse research.

To develop greater competence in understanding adolescent PTSD development and maintenance, studies examining these potential risk and resilient variables are needed. Unfortunately, research concerning this topic continues to be sparse and unsophisticated. The current study appears to be the first project to fully examine maltreatment reactions in diverse youths within a cohesive empirically-based model. Researchers examined a conceptual model of PTSD-related symptoms and PTSD in relation to family environment and ethnic identity. Researchers also examined the influence of ethnicity/race in this model.

Hypotheses

This study primarily examined trauma symptomatology associated with child maltreatment within a culturally competent, ecologically-based framework. The current study involved discerning the nature of PTSD presentations in diverse adolescents. Trauma symptomatology examined included PTSD-related symptoms of depression, dissociation, anger, and maladaptive cognitions and PTSD. Researchers also explored the influences of family environment and ethnic identity in relation to trauma symptoms.

The first hypothesis was that family expressiveness, cohesion, control, conflict, and independence would mediate the relationship between (1) PTSD-related symptoms of depression, dissociation, maladaptive cognitions, and anger and (2) PTSD symptoms. Increased PTSD-related symptoms expected to contribute to increased PTSD symptoms. However, less family expressiveness, cohesion, and independence, and more conflict and control were hypothesized mediators in this relationship. This hypothesis was based on several studies supporting the relationship between PTSD-related symptoms and PTSD in traumatized youths (La Greca et al., 1998; Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004). PTSD symptoms appear inextricably linked to symptoms of depression, dissociation, maladaptive cognitions, and anger.

Several studies also indicate that family environment can facilitate negative functioning and more psychological symptoms vis-à-vis maltreatment (Higgins & McCabe, 2000; Suveg et al., 2005). For example, low family cohesion and independence, and more control and conflict often relate to child maltreatment and greater psychological symptoms (Alexander & Shaeffer, 1994; Higgins & McCabe, 2000; Higgins et al., 2003). The development of anxiety disorders may also be

facilitated by emotionally restrictive family environments (Suveg et al., 2005). Past studies fail to clarify how family environment specifically relates to PTSD in youths.

The second hypothesis was that ethnic identity would mediate the relationship between (1) PTSD-related symptoms of depression, dissociation, anger, and maladaptive cognitions and (2) PTSD symptoms. The basis of this hypothesis related to several studies indicating that cultural variables such as ethnic identity can influence youth functioning (Bracey et al., 2004; Lang et al., 1992; Rosenthal & Feldman, 1992; Sellers et al., 2006; Wong et al., 2003). In addition, some researchers report racial/ethnic differences in trauma symptoms after maltreatment. However, most researchers have not measured ethnic identity or fully interpreted ethnic differences.

The third hypothesis was that ethnicity/race would influence relationships outlined in the first two hypotheses. A comprehensive framework of PTSD-related symptoms, PTSD symptoms, and risk and resilient variables such as family environment and ethnic identity was examined vis-à-vis ethnicity/race. African-American and multiracial ethnic/racial status was expected to strengthen the ethnic identity mediational relationship between PTSD-related symptoms and PTSD. The basis of this hypothesis related to studies documenting the importance of ethnic identity in relation to psychological functioning for African-Americans and multiracial youths (Bracey et al., 2004; Brook et al., 1998; Caldwell et al., 2002; Phillips, 2004; Phinney & Onwughala, 1996; Wong et al., 2003). Hispanic and Asian-American race/ethnicity was also expected to strengthen the family environment mediational relationship between PTSD-related symptoms and PTSD. Hispanic ethnicity expected to influence this model because several studies document Hispanic's valuation of family relationships (Coohey,

2001; Fuligni et al., 1999; Perilla et al., 2002; Vega, 1995). Several studies also document the importance of family cohesion in Asian-Americans (Fuligni et al., 1999; Ying et al., 1999).

CHAPTER 3

METHODOLOGY

Participants

Participants were 50 adolescents from two independent sites: Department of Family Services/Child Haven in Las Vegas, Nevada (n=43) and University of California Davis Medical Center (UCDMC) Children's Hospital in Sacramento, California (n=7). Child Haven is a shelter that provides respite and care to children in protective custody by Child Protective Services (CPS). The UCDMC Child and Adolescent Abuse, Resource, Evaluation Diagnostic and Treatment Center (CAARE Center) is a facility that provides medical and psychological services to children and families involved with CPS.

Adolescent participants were 29 females and 21 males aged 11-17 years (M=14.5, SD=1.5). Youths self-identified as multiracial (34%), African-American (28%), European-American (18%), Hispanic (10%), Asian-American (8%), and Native-American (2%) (Table 3). Most participants (47) were born in the United States; 3 were born in Mexico or the Philippines. Most participants (38) said their mother was born in the United States; 9 said their mother was born outside the United States. Most (38) participants said their father was born in the United States; 7 said their father was born outside the United States. Participants reported varying marital status for their parents: never married (44%), currently married (28%), divorced (22%), and separated (6%).

Most youths (45) had current or previous placements in protective custody. Reasons for removal included physical abuse (18%), sexual abuse (14%), runaway (14%), neglect (26%), abandonment (10%), exposure to domestic violence (4%), physical abuse of sibling (2%), and sexual abuse of sibling (2%). Ten percent did not have removal histories; they were UCDMC participants who resided with their biological mother. Child Haven adolescents were in CPS protective custody during the study. Two youths from UCDMC were in foster-kinship care due to parent substance use/neglect.

Information on socioeconomic status was unavailable because of limitations in accessing parental demographic information and familial income. The United States Census Bureau (2007) estimated 2005-2006 median household income for Nevada residents to be $51,036 and for California residents to be $54,385. These median figures did not correspond with this sample because DFS/CPS-affiliated families tend to be lower income (Connelly & Straus, 1992; Holden, Willis, & Corcoran, 1992). Youth data about parental education and occupation provided some information on socioeconomic status. Adolescents said their mother graduated (44%) or did not graduate (32%) from high school; 24% did not know. Adolescents said their mother had (30%) or did not have (38%) 1-4 years of college experience; 32% did not know. Adolescents said their father graduated (28%) or did not graduate (20%) from high school; 52% did not know. Adolescents said their father had (10%) or did not have (24%) 1-4 years of college experience; 66% did not know. Many adolescents indicated parental employment in a

minimum wage job or unemployment. Child Haven and UCDMC youths did not appear to differ on these variables.

Many adolescents (56%) reported at least one experience with drug/alcohol use. Many (45%) said their family was religious/regularly participated in religion and most (68%) identified as religious regardless of family religious commitment. Mean and median numbers of traumatic events were 2.86 and 3.00, respectively (SD=1.59, range=1-7). Independent samples t-test indicated no mean differences between Child Haven (M=2.93) and UCDMC (M=2.43) samples.

Youths were diagnosed as PTSD negative (6%) or PTSD positive (subclinical to chronic cases or PTSD) (94%). Sixty-percent of youths met full diagnostic criteria for chronic PTSD, 10% acute PTSD, and 30% were PTSD negative. Composition of PTSD diagnoses by gender and ethnicity is in Table 4. Youths did not differ according to PTSD negative or PTSD positive diagnoses based on gender and ethnicity/race. Youths were also given scores based on how many PTSD symptom clusters (0-6) they were experiencing (M=5.34, SD=1.2, range=1-6). Symptom clusters included exposure to a traumatic event, situational reactivity, reexperiencing, avoidance and numbing, increased arousal, and significant distress. Traumatic events were classified along 8 categories (Table 5).

Twenty participants (40%) reported experiencing physical abuse. Females (n=15) reportedly experienced more physical abuse than males (n=5) (χ=3.95, $p \leq .05$). Ethnicity/race of those physically maltreated is in Table 6. Youths alleging physical maltreatment identified their father (35%), mother (30%), male guardian/stepfather

(30%), or other female guardian/stepmother (5%) as the perpetrator. Some participants reported multiple abusers (M=1.65, SD=.74, range = 1-3).

Sixteen participants experienced sexual abuse (32%). Participants reporting alleged sexual abuse were largely female (n=14) (males=2). A higher ratio of females reported sexual abuse than males (χ=8.41, $p \leq .01$). Nine youths (18%) experienced a sexual violation perpetrated by a similar age peer/sibling or a sexual violation associated with an unusual event, such as rape occurring during a home invasion/kidnapping. A higher ratio of females (n=9) reported this type of sexual violation than males (n=0) (χ=7.95, $p \leq .01$). Ethnic composition of adolescents reporting sexual violations/maltreatment is in Tables 6 and 7. Adolescents said their abusers were a stepfather/male guardian (n=5), uncle/ grandfather/adult male relative (n=5), teenager/similar age child (n=4), adult sibling (n=2), or biological father (n=1) (N=17). Twelve participants who reported sexual abuse or a sexual violation reported one perpetrator; 7 reported multiple perpetrators (M=1.79, SD=1.47, range=1-7).

Nineteen participants witnessed domestic violence (38%) (male=8, female=11) (Table 6), 19 youths experienced neglect (38%) (males=11, females=8) (Table 8), and 9 participants were victimized by other serious violence such as bullying or violence by a similar age peer/sibling (18%) (male=5, female=4) (Table 7). Twenty-two participants witnessed other violence such as siblings hurt/abused, gang fights, or shootings (44%) (male=12, female=10) (Table 7).

Measures

Demographic/Information Sheet. The demographic/information sheet solicited information on gender, age, race/ethnicity, country of origin, biological parent race/

ethnicity, biological parent country of origin, parent marital status, family religious participation, and youth religiosity (Appendix I). Demographic/information questions also concerned family size, fluent and primary languages spoken in the home, and youth experience with drugs and alcohol.

Children's PTSD Inventory (CPTSD-I) (Saigh, 1998). The Children's PTSD inventory is a semistructured interview to assess DSM-IV-TR PTSD symptoms in youths (Saigh et al., 2000). The interview is appropriate for youths aged 7-18 years. Interview questions assess individual PTSD symptoms via five subscales: exposure to trauma, reexperiencing symptoms, avoidance and numbing symptoms, increased arousal, and significant distress. CPTSD-I items also assess duration of distress. Each CPTSD-I assessment yields a continuous PTSD score from 0-6 based on symptom clusters endorsed and one of five diagnoses that range from Negative, Acute PTSD, Chronic PTSD, Delayed Onset PTSD, to No Diagnosis. No Diagnosis refers to youths who reportedly experienced a trauma but did not acknowledge this during the interview.

Interview administration lasts 15-20 minutes in youths who report a traumatic event (Saigh et al., 2000). Youth responses are scored on a dichotomous 1 (for presence) and 0 (for absence) scale. Convergent validity between CPTSD-I and DSM-IV PTSD diagnostic criteria yielded mean ratings (on a 0-100 Likert-type scale) of 86.6-90.0.

Saigh and colleagues (2000) examined CPTSD-I internal consistency and reliability in traumatized and non-traumatized youths aged 7-18 years ($M = 13.8$). High internal consistency estimates of CPTSD-I diagnoses were obtained. Diagnostic internal consistency corresponded with a Cronbach's alpha of .95. Internal consistency alphas for the five subtests were .53-.89. Saigh and colleagues (2000) reported a Cohen's kappa of

.96, which indicated excellent agreement between raters at the diagnostic level. Four subtests yielded Cohen's kappas of .84-1.00, indicating excellent interrater reliability. One exception was a kappa coefficient of .66 for the Situational Reactivity subtest. Excellent estimates of test-retest reliability yielded a 97% agreement at the diagnostic level, with a Cohen's kappa of .91. Test-retest reliability for the subtests, with the exception of Significant Impairment, yielded kappas of .78-1.00. The Significant Impairment subtest kappa was .66.

Concurrent, convergent, and discriminant validity of the CPTSD-I was examined in traumatized and non-traumatized youths aged 7-18 years (M = 13.4 years) (Yasik et al., 2001). The CPTSD-I displayed high concurrent validity compared to three criterion measures. Pearson product-moment correlation coefficients with the CPTSD-I were obtained for diagnostic efficiency and ranged from .93-.95 with three independent and standardized PTSD interviews. Moderate to high levels of sensitivity and specificity, as well as positive and negative predictive power, corresponded with the three criterion measures.

The Revised Children's Manifest Anxiety Scale (RCMAS) (Reynolds & Richmond, 1985) and Children's Depression Inventory (CDI) (Kovacs, 1992) assess symptoms associated with PTSD and were considered adequate measures to examine CPTSD-I convergent validity (Yasik et al., 2001). Pearson product-moment correlation coefficients between CPTSD-I overall symptom endorsement and RCMAS and CDI symptom endorsement were .92 and .91. The Junior Eysenck Personality Inventory (JEPI) helped examine discriminant validity (Eysenck, 1963). The CPTSD-I and JEPI extraversion scale were not associated, as expected.

Children's Depression Inventory (CDI) (Kovacs, 1992). The CDI is a 27-item self-report questionnaire for youths aged 7-17 years. The CDI measures depressive symptoms during the past two weeks. The CDI yields a total depression score and five subscale scores: Negative mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. Each item is based on a 3-point response format from "0 = absence of a symptom" to "2 = definite symptom."

Smucker and colleagues (1986) reported a CDI total score mean of 9.09 (SD = 7.04) among youths aged 7-15 years. Based on the upper 10% distribution scores, the CDI cutoff score was 19 for males and females. Three-week test-retest reliability values were good for all ages. Internal consistency reliability was acceptable with coefficient alphas of .83-.89.

Nelson and colleagues (1987) examined CDI characteristics with inpatient males and females aged 6-18 years. Age differences were not apparent among CDI scores. Females received higher CDI total scores than males. These gender differences may be more prominent in adolescents compared to children. African-American and European-American youth scores were similar. The authors also reported a coefficient alpha of .86 regarding internal consistency.

Other authors report gender differences in CDI scores, with females scoring higher than males (Liss, Phares, & Liljequist, 2001). Among diverse inpatient youths aged 7-17 years, racial differences in CDI scores were not apparent. This study provided further evidence for CDI discriminant validity. Youths with depression-related disorders had higher CDI scores than those with primary aggressive/conduct disorders and those with primary aggressive/conduct disorders plus secondary emotional/depressive problems.

Politano and colleagues (1986) noted racial/ethnic differences in CDI factor structure. African-American and European-American clinical inpatients aged 7-17 years were administered the CDI within five days of hospital admission. Separate factor analyses emerged for African-Americans and European-Americans. For African-Americans, 5 factors were evident: destitution, poor school performance, oppositional/ acting-out behavior, negative self-image, and decreased level of enjoyment. For European-Americans, 6 factors emerged: social isolation, sadness, lowered school performance, negative self-image, lethargy, and suicidal ideation. Similarities existed in some factors for African-American and European-American youths. However, the authors suggested that CDI scores may reflect more behavioral dimensions for African-Americans such as acting-out behaviors than European-American youths. CDI scores may reflect predominantly affective dimensions in European-Americans, such as suicidal behavior or lethargy.

Test-retest reliabilities for the CDI in children aged 7-12 years appear acceptable (Finch, Saylor, Edwards, & McIntosh, 1987). CDI administrations across 2 weeks revealed acceptable test-retest values (.82), 4 weeks (.66), and 6 weeks (.67). CDI internal structure with nonclinical children aged 4-18 years was satisfactory (Helsel & Matson, 1984). Analyses revealed four factors with good face validity: affective behavior, image/ideation, interpersonal relations, and guilt/irritability. Internal reliability corresponded with a split-half correlation of .89. Helsel and Matson (1984) reported that CDI scores did not differ according to race or gender. The authors noted that older youths may report more depressive symptoms than younger children.

Posttraumatic Cognitions Inventory (PTCI) (Foa, Ehlers, Clark, Tolin, & Orsillo, 1999). The PTCI is a 36-item self-report questionnaire that measures trauma-related thoughts and beliefs related to PTSD symptoms. The PTCI yields 3 subscale scores and a total negative cognitions score. The three subscales are negative cognitions about self, negative cognitions about the world, and self-blame. Each item is rated on a 7-point Likert-type scale from "1 = totally disagree" to "7 = totally agree." No specific age requirements are available for the PTCI.

Foa and colleagues (1999) reported moderate to strong correlation coefficients among the three PTCI subscales and total score. PTCI subscales also demonstrated stable factor structures. All items loaded high on the correct factors and correlation coefficients for factor congruence were .98 for negative cognitions about self and .99 for negative cognitions about the world and self-blame. Internal consistency was high with alphas of .97 for total score, .97 for negative cognitions about self, .88 for negative cognitions about the world, and .86 for self-blame.

One-week test-retest reliability for PTCI scores were reported with Spearman Rho correlation coefficients of .74 for total score, .75 for negative cognitions about self, .89 for negative cognitions about the world, and .89 for self-blame (Foa et al., 1999). Three-week test-retest reliability Spearman Rho correlation coefficients were .85 for total score, .86 for negative cognitions about self, .81 for negative cognitions about the world, and .80 for self-blame.

PTCI convergent validity was examined with the World Assumptions Scale (WAS) (Janoff-Bulman, 1989, 1992) and Personal Beliefs and Reactions Scale (PBRS) (Resick et al., 1991) (Foa et al., 1999). The PTCI total score and subscales demonstrated

moderate to high correspondence with PBRS total score and subscales. PTCI total score and subscales did not correspond to WAS total score and subscales with two exceptions. WAS self-worth scale yielded correlation coefficients of .60 with negative cognitions about the self and .51 with PTCI total score.

The PTCI predicts PTSD severity and general anxiety and depressive symptoms (Foa et al., 1999). After controlling for anxiety and depression, PTSD severity and PTCI scales continued to demonstrate moderate to high correlation coefficients. Further, the PTCI exhibited high sensitivity and specificity, demonstrating good ability to identify individuals with PTSD. Higher PTCI scores differentiated individuals with PTSD from individuals without PTSD.

Beck and colleagues (2004) further examined the structure, internal consistency, and validity of the PTCI in individuals who experienced a motor vehicle accident. Examination of PTCI items yielded 3 factors that reflected the 3 PTCI subscales. One exception involved the negative cognitions about the self subscale, which contained four items. Internal consistency estimates of PTCI subscales also appeared moderate to high for the PTCI subscales and total score.

Comparing the PTCI to the State-Trait Anxiety Inventory (STAI) revealed PTCI concurrent validity information (Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983) and Beck Depression Inventory (BDI) (Beck & Steer, 1993) (Beck et al., 2004). Low to high correlation coefficients existed between various PTCI, STAI, and BDI subscales. The self-blame scale exhibited low concurrent validity. Controlling anxiety and depressive symptoms aided in examinations of the relationship between PTCI scores and PTSD severity. PTSD severity was associated with the PTCI total score, negative

cognitions about the self, and negative cognitions about the world. PTSD severity and the self-blame subscale were not associated. Higher PTCI scores related to lower quality of life scores.

Beck and colleagues (2004) sought whether PTCI scores differentiated those with and without PTSD. PTCI sensitivity and specificity did classify individuals with or without PTSD. Those with PTSD had higher PTCI total, negative cognitions about the self, and negative cognitions about the world scores than individuals without PTSD. The self-blame subscale did not discriminate these groups. When controlling for medication use and pain complaints, the PTCI total and negative cognitions about the self scores differentiated those with PTSD from those without PTSD.

The PTCI appears to have a stable factor structure and adequate internal consistency (Foa et al., 1999). The PTCI also demonstrates validity for measuring negative trauma-related cognitions. As expected, higher PTCI scores are associated with more PTSD symptoms (Beck et al., 2004). Additional information concerning PTCI scores among diverse populations will assist researchers.

Adolescent Dissociative Experiences Scale (A-DES) (Armstrong, Putnam, Carlson, Libero, & Smith, 1997). The A-DES is a 30-item self-report questionnaire to assess dissociation regarding normal to pathological experiences in youths aged 12-18 years (Armstrong et al., 1997). The A-DES is based on an 11-point Likert-type scale of "0 = never" and "10 = always." A person indicates how often a particular experience happens.

The A-DES contains four domains of dissociation: dissociative amnesia, absorption and imaginative involvement, passive influence, and depersonalization and derealization

(Armstrong et al., 1997). Dissociative amnesia refers to dissociative memory lapses. Absorption and imaginative involvement refers to overimmersion in fantasy activities such that reality and fantasy are blurred. Passive influence refers to lack of control over bodily actions and sensations. Depersonalization and derealization refer to feelings of mind-body separation and separation from the world. Two subscales also assess specific effects of depersonalization, such as disconnection from oneself and information about interpersonal relationships.

Armstrong and colleagues (1997) examined validity of the A-DES among 73 inpatient, 12 outpatient, and 17 control adolescents. A Cronbach's alpha of .93 indicated excellent internal consistency for the A-DES. Subscale alphas were .72-.85, indicating good subscale internal consistency. Adequate split-half reliability emerged with a Spearman-Brown value of .92.

A-DES scores did not differ based on demographics such as age, gender, race, or grade (Armstong et al., 1997). However, A-DES scores differentiated maltreatment status; physically and sexually maltreated youths scored higher than controls. The A-DES appears to be a valid measure to assess normal and pathological dissociation. Youths with dissociative disorders scored higher on the A-DES than controls.

Farrington and colleagues (2001) examined A-DES internal reliability and factor structure in non-clinical adolescents from the United Kingdom. A Cronbach's alpha of .94, revealed excellent internal reliability. Excellent split-half reliability corresponded with a Spearman-Brown value of .90. The factor structure of the A-DES revealed one main factor reflecting dissociative experiences. However, factors for the A-DES

subscales were not apparent. The authors reported an overall mean score of 2.6, providing normative data for non-clinical samples.

Smith and Carlson (1996) also provided normative data for the A-DES among high school students aged 12-17 years and college students aged 18-21 years. A-DES total mean scores were 2.24 for high school students and 0.78 for college students. Subscale means ranged from 1.87-2.75. For high school student, two-week test-retest reliability was .77. Smith and Carlson (1996) also examined A-DES internal consistency and concurrent validity. Internal consistency examinations revealed a Cronbach's alpha of .92 for the A-DES total score. Internal consistency values of A-DES subscales were .64-.83. A-DES examinations revealed adequate Spearman-Brown split-half reliability at .94. Comparing the A-DES to the Dissociative Experiences Scale provided concurrent validity information (Carlson & Putnam, 1993). Results indicated good concurrent validity with a correlation coefficient of .77.

Muris and colleagues (2003) examined psychometric properties of the A-DES in nonclinical adolescents aged 12-17 years. Factor analyses revealed one factor reflecting dissociative experiences. The authors provided normative data for the A-DES and reported an A-DES total mean score of 1.27. Mean scores for A-DES subscales were 1.79 for absorption/imaginative involvement, 1.58 for passive influence, 1.36 for dissociative amnesia, and .82 for depersonalization/derealization. A Cronbach's alpha of .93 indicated good reliability. Demographic variables such as age and gender were unrelated to A-DES scores. Higher A-DES scores were also associated with more PTSD symptoms.

A more recent examination of the A-DES revealed the measure to have good internal consistency with a Cronbach's alpha of .94 (Seeley, Perosa, & Perosa, 2004). A modified A-DES utilized a 6-point Likert-type scale. Seeley and colleagues (2004) examined the response format of the A-DES via several pilot studies. These pilot studies provided evidence for the utility of using a 6-point Likert-type scale for the A-DES. Seeley and colleagues (2004) examined A-DES scores among sexually maltreated and control adolescent females. Sexually maltreated females scored higher on the A-DES than controls. A-DES scores did not differentiate maltreated females with PTSD from maltreated females with other disorders. However, the PTSD-clinical group (n = 16) and other psychiatric disorder-clinical group (n = 15) sample sizes may have been too small to detect statistical differences. Further, therapist ratings of adolescent dissociation coincided with adolescent mean scores on the A-DES.

State-Trait Anger Expression Inventory-2 (STAXI-2) (Spielberger, 1999). The STAXI-2 is a 57-item self-report questionnaire for adolescents and adults. The STAXI-2 is a revised version of the State-Trait Anger Expression Inventory (Spielberger, 1988). The STAXI-2 measures expression and control of anger. The STAXI-2 has a total Anger index and State anger, Trait anger, Anger-out, Anger-in, Control of anger-out, and Control of anger-in scales. The STAXI-2 also yields three components of state anger: Feeling angry, Feel like expressing anger verbally, and Feel like expressing anger physically. Two components of Trait anger are also identified: Angry reaction and Angry temperament. The STAXI-2 is based on a 4-point Likert-type scale where "1 = almost never" and "4 = almost always."

The 57 items in the STAXI-2 represent an expansion from the original 44 STAXI items (Spielberger, 1988; 1999). Spielberger (1999) reported a STAXI-2 alpha coefficient of .76 for the Anger index among normal males and females as well as subscale/scale alpha values of .72-.94. Several studies report adequate reliability and factor structures for the STAXI (Forgays, Forgays, & Spielberger, 1997; Forgays, Spielberger, Ottaway, & Forgays, 1998; Knight, Chisholm, Paulin, & Wal-Manning, 1988).

Family Environment Scale, Form-R (FES) (Moos & Moos, 1986). The FES is a 90-item self-report questionnaire of 3 main factors of family-of-origin: Relationship, Personal Growth, and System Maintenance (Moos & Moos, 1986). The Relationship dimension features three subscales: cohesion, expressiveness, and conflict. The Personal Growth dimension features five subscales: independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious orientation. The System Maintenance dimension features two subscales: organization and control. FES responses use a true-false format.

Boyd and colleagues (1997) reported FES reliability estimates in adolescents aged 11-18 years. Internal consistency estimates varied from low to moderate. Internal consistency was acceptable for conflict, moral-religious emphasis, and cohesion scales, with alpha coefficients of .72, .71, and .67, respectively. Lowest internal consistency estimates were for independence and expressiveness scales with alphas of .31 and .39, respectively. Other subscale alphas included .44 for achievement, .47 for intellectual-cultural orientation, .59 for control, .60 for organization, and .62 for active-recreational orientation.

Waldron and colleagues (1990) examined FES factor structure in college students and non-clinical adults. Reliability estimates of FES subscales varied from .43 (independence), to .51 (achievement orientation) to .77 (cohesion). Five FES subscales appeared internally consistent: cohesion (.77), intellectual-cultural (.75), moral-religious emphasis (.74), conflict (.74), and organization (.72). Other subscale alpha levels were .63-.66.

Multigroup Ethnic Identity Measure (MEIM) (Phinney, 1992). The MEIM is a 23-item self-report questionnaire of ethnic identity. The scale is appropriate for various ethnic and racial groups. The MEIM is based on a 4-point Likert-type scale where "1 = strongly disagree" and "4 = strongly agree." Each individual indicates his ethnic/racial group and then answers questions relating to sense of belonging to, and knowledge of, a certain ethnic group. Three subscales of ethnic identity include Affirmation and Belonging, Ethnic Identity Achievement, and Ethnic Behaviors. The MEIM also yields an Other-Group Orientation score.

Phinney (1992) described ethnic identity as the inherent sense of belonging to a specific ethnic group and degree of association with an ethnic group's shared phenotype, values, religion, country-of-origin, or language (Cuellar, Nyberg, Maldonado, & Roberts, 1997; Phinney, 1990; 1992; 2003). Affirmation and belonging refer to ethnic pride, belonging to a particular ethnic/racial group, and satisfaction with group membership.

Ethnic identity achievement refers to commitment to various ethnic-related preferences and efforts to become more knowledgeable of one's ethnic/racial group (Phinney, 1992). Ethnic behaviors refer to participation in activities and traditions

associated with a particular ethnic/racial group. The other-group orientation scale measures acceptance of racial/ethnic groups outside of one's group.

Phinney (1992) presented information on psychometric properties of the MEIM among diverse adolescents aged 14-19 years and college students aged 18-34 years. Reliability for the overall scale and subscales was adequate. Ethnic identity scores yielded a Cronbach's alpha of .81 for adolescents and .91 for college students. Subscale Cronbach's alphas were .75-.86 for affirmation/belonging, .69-.80 for ethnic identity achievement and .71-.74 for other-group orientation. Data analyses revealed two factors of ethnic identity and other-group orientation (Phinney, 1992). College students received higher ethnic identity achievement scores than high school students. Other-group orientation scores did not correlate with ethnic identity among college students and adolescents.

Racial/ethnic differences among ethnic identity scores also emerged. European-American high school students had lower ethnic identity scores than Asian-American, African-American, and Hispanic-American adolescents. Among college students, African-Americans had higher ethnic identity scores than European-Americans and Hispanics. Phinney (1992) noted that African-Americans might score higher on ethnic identity scales because of racial distinctiveness based on discrimination. Higher self-esteem related to higher ethnic identity scores among all groups except European-American college students.

Ponterotto and colleagues (2003) reviewed 12 studies featuring the MEIM. The studies involved college and/or high school students. Coefficient alphas for internal consistency of the ethnic identity scale ranged from .81-.92 with an overall mean of .86.

Coefficient alphas for internal consistency of the other-group orientation scale ranged from .35-.82 with an overall mean alpha of .69. Ponterotto and colleagues (2003) also reported internal consistency and validity for the MEIM for high school senior and junior students (Phinney, 1992). The MEIM requires a sixth-seventh grade reading level (Ponterotto et al., 2003). The two factors of ethnic identity and other-group orientation were distinct. Ethnic identity and other-group orientation scale coefficient alphas' were .89 and .59 respectively.

Procedure

Procedures followed UNLV, UCDMC, and DFS policies regarding research with human subjects. The UNLV Office for the Protection of Research Subjects, Institutional Review Board (IRB), Social and Behavioral Sciences committee approved protocol #0705-2351 on September 17, 2007. The UCDMC Office for the Protection of Research Subjects, Institutional Review Board (IRB), Social and Behavioral Sciences committee approved protocol #200715799-1 on November 11, 2007. An approved interlocal contract by UNLV and DFS was in accordance with county and state laws regarding children in protective custody. A Confidentiality Certificate from Department of Health and Human Services, National Institutes of Health applies to Child Haven/UNLV participants (August 1, 2007).

Participants came from two independent sites: Child Haven in Las Vegas, Nevada and UCDMC CAARE Center in Sacramento, California. Adolescents recruited from Child Haven were in CPS protective custody. Adolescents from UCDMC CAARE Center received services from CAARE Center's Counseling for Trauma Recovery with Children (CHAT) and Child for Sexual Abuse Treatment (CSAT) programs. The CHAT

and CSAT programs provide counseling services to children and families with histories and recent experiences of physical or sexual abuse and/or witnessing domestic violence. Coordinators at Child Haven and CAARE Center informed researchers when an adolescent potentially met eligibility criteria for the study.

Eligibility criteria included youths aged 11-17 years who self-reported a traumatic experience. No racial/ethnic or gender exclusions applied. Adolescents were excluded from the study if they did not affirm the experience of trauma or if they had a thought disorder (per self-report/history or observed by researchers). Eligible youths from CAARE Center resided with their non-offending legal guardian/biological parent. If adolescents did not comprehend the assent form, interview questions, and/or self-report forms, the assessment was not completed.

Twenty-three consenting youths were ineligible and/or did not complete assessment procedures (males=11, females=12). Fourteen youths did not endorse a traumatic event, 3 did not comprehend assessment measures, 2 were limited in English proficiency, 2 endorsed a traumatic event but declined to discuss the incident, 1 declined to participate, and 1 began the assessment but later discontinued. Age information was unavailable for 2 ineligible youths, but remaining adolescents with incomplete assessments had a mean age of 13.8 years. Youths with incomplete assessments were African-American (8), Multiracial (6), Caucasian (4), Hispanic (2), African (1), and Pacific Islander (1) (unavailable=1).

Before meeting with potential Child Haven participants, researchers attempted to obtain parental consent via telephone. If parental contact was unsuccessful, Child Haven/DFS mental health staff or Child Haven coordinators/supervisors provided

consent. At Child Haven, graduate-level researchers met with eligible adolescents individually to further explain the study. If an adolescent expressed interest in the study, the researcher provided additional details and solicited youth assent. After obtaining consent and assent, youths met individually with a graduate-level researcher to complete the semistructured interview and self-report forms.

At UCDMC, the primary researcher contacted the legal guardian/biological parent of eligible adolescents to explain the study. If the legal guardian/biological parent expressed interest in the study, an individual meeting was scheduled. During the meeting, the primary researcher further explained the study, solicited parental consent and youth assent, and administered the youth interview and self-report forms.

Researchers advised participants not to answer questions they felt uncomfortable with and that participation was voluntary. Researchers provided information about research confidentiality, rights as a participant, and limits of confidentiality. Adolescents completed a demographic/information form, the Children's PTSD Inventory, Children's Depression Inventory, Posttraumatic Cognitions Inventory, Adolescent-Dissociative Experiences, State-Trait Anger Expression Inventory, Family Environment Scale, and the Multigroup Ethnic Identity Measure. Assessments occurred in a confidential environment without DFS or UCDMC staff. A graduate student interviewed each adolescent with the CPTSD-I. The demographic/information and CPTSD-I lasted approximately 20-25 minutes. Youths then completed 6 self-report measures with the assistance of a graduate student researcher and undergraduate research assistant. The self-report measures lasted approximately 60-90 minutes.

Participants were encouraged to take breaks during the assessment process. If researchers observed excessive fatigue, a follow-up session was scheduled. If a youth expressed discomfort during the assessment, a graduate student researcher was available for support. Researchers applied appropriate actions if a youth expressed intent to harm others or self or significant psychopathology such as visual/auditory hallucination. At Child Haven, the graduate-level researcher discussed the issue with the adolescent and offered to meet with a Child Haven cottage staff or mental health team member of the youth's choice to secure the safety of the adolescent. At UCDMC, the primary researcher met with the adolescent and legal guardian/biological parent to discuss concerns and develop a safety plan if appropriate. Contact occurred with the youth's primary mental health clinician or social worker if necessary. The graduate-level researchers provided appropriate contact numbers to the legal guardian/biological parent and Child Haven staff if further problems arose.

Debriefing for participants occured immediately after assessment was completed. This debriefing consisted of further explaining the study purpose and procedures. Youths and parents were encouraged to process their feelings and ask questions about participation. Adolescents were encouraged to share distressing feelings with their parent, counselor, or social worker, as applicable. If possible, a follow-up debriefing occurred with each Child Haven participant at least one week after initial assessment. During the debriefing, researchers addressed additional inquiries about the research or procedures. With assenting Child Haven youths, researchers provided an introductory session on relaxation and healthy coping strategies. Assenting Child Haven adolescents learned about journaling to cope with stress. Researchers provided a handout of these

techniques and a journal to each participating adolescent. Forms were confidential and coded by a number to ensure anonymity of the participant. Data were stored in a locked filing cabinet in a university lab or office.

Data Analysis

General Comparisons

Pearson correlational analyses examined the relationship between PTSD-related symptoms and posttraumatic stress disorder (PTSD) symptomatology. PTSD-related symptoms were depression (CDI total score), dissociation (A-DES total score), anger (STAXI-2: state, trait, and anger expression scores), and negative cognitions (PTCI total score). PTSD symptomatology represented PTSD symptom cluster scores using the Children's PTSD Inventory (CPTSD-I). Participant scores ranged from 0-6 depending upon confirmation of symptom areas (exposure, situational reactivity, reexperiencing, avoidance/numbing, arousal, and distress symptoms). Higher scores indicated more PTSD symptomatology. Pearson correlational analyses and linear regression analyses were also conducted to examine the relationship between hypothesized mediators (ethnic identity and family environment), independent variables (PTSD-related symptoms: depression, negative cognitions, anger, and dissociation), and the dependent variable (PTSD symptomatology: CPTSD-I scores).

Hypothesis One

The first hypothesis was that family expressiveness, cohesion, control, conflict, and independence would mediate the relationship between (1) PTSD-related symptoms of depression, dissociation, maladaptive cognitions, and anger, and (2) PTSD symptoms. Increased PTSD-related symptoms expected to contribute to increased PTSD

symptomatology. Less expressiveness, cohesion, and independence, and more conflict and control were hypothesized mediators in this model. An analytical approach recommended by Baron and Kenny (1986) was used to examine the hypothesized mediational model (see below).

Hypothesis Two

The second hypothesis was that ethnic identity would mediate the relationship between (1) PTSD-related symptoms of depression, dissociation, anger, and maladaptive cognitions, and (2) PTSD symptoms. Higher ethnic identity scores were hypothesized mediators in the relationship between PTSD-related symptoms and PTSD. An analytical approach recommended by Baron and Kenny (1986) examined this hypothesized mediational model. Preliminary analyses of MEIM variables revealed that ethnic identity was not correlated with or predictive of the independent variable of PTSD-related symptoms or the dependent variable of PTSD symptomatology. The ethnic identity variable did not meet criteria to function as a mediating variable in the relationship between PTSD-related symptoms and PTSD symptomatology. One MEIM variable, other-group orientation identified as a potential mediator in the relationship between the independent variable and dependent variable. Baron and Kenny's (1986) recommendations to testing mediation was applied to this model.

Mediational Analyses

A mediational analysis approach recommended by Baron and Kenny (1986) examined the predicted mediational models of hypothesis one and two. Mediation occurs when the relationship between an independent and dependent variable results from a

third variable (Baron & Kenny, 1986). Specifically, the third variable is the mechanism that explains the relationship between the independent and dependent variable.

The Baron and Kenny (1986) approach to mediation utilizes multiple regression and linear regression analyses. Three linear regression equations examined the paths of the independent variable (A), mediator (B), and dependent variable (C). The first test examined the independent variable-dependent variable (A→C) path. Depression, anger, dissociation, maladaptive cognitions, and anger represented (A) and were examined as a combined model and separately. If significance occurred, an additional test examined the independent variable-mediator (A→B) path with the mediator acting as the criterion variable. If this path demonstrated significance, the (A + B) →(C) path was examined for significance testing using Sobel calculations.

Mediation was implied if the three regression paths revealed that (1) the independent variable significantly affected the dependent variable (A→C); (2) the independent variable significantly affected the mediator (A→B); and (3) the independent variable and the mediator affected the dependent variable [(A + B)→C]. The effect of the independent variable on the dependent variable should be zero or significantly reduced with the addition of the mediator.

The Sobel test is an approximate significance test for mediational analyses (Baron & Kenny, 1986). The Sobel test examines if the effect of the independent variable on the dependent variable significantly reduces or has no effect with the addition of the mediator. Sobel test calculations helped to interpret the indirect effect of the independent variable on the dependent variable via the mediator. The Sobel test is one of the most

commonly used tests to calculate significance of the indirect effect. The Sobel method is a conservative test (MacKinnon, Warsi, & Dwyer, 1995).

Pearson correlational analyses to assess for multicollinearity examined all continuous variables used in hypothesis one and two (Tables 9, 10 & 11). The two variables that correlated most strongly (STAXI State Anger and STAXI Feeling Angry) were subjected to linear regression analyses with each as the dependent variable. The variance inflation factor and tolerance for each analysis was 1, well within the tolerable limit of 10 (Stevens, 1996). Multicollinearity was nonproblematic.

For both hypotheses, Pearson correlations were examined to identify associations between PTSD-related symptoms, PTSD, and ethnic identity and family environment (Tables 9, 10, & 11). Next, a general linear model was examined to determine if PTSD-related symptoms contributed to PTSD diagnostic symptoms. The paths of depression, dissociation, negative cognitions, and anger were each run separately to determine each variable's contributing effects to PTSD diagnostic symptoms. General linear analyses were also conducted with FES and ethnic identity (MEIM) subscales that correlated with PTSD-related symptoms. In these analyses, FES and MEIM subscales were criterion variables and PTSD-related symptoms were independent variables. FES and MEIM subscales affected by PTSD-related symptoms guided further mediational analyses.

For the first hypothesis, several models were tested to determine if family environment (B) (FES standard scores of expressiveness, conflict, and cohesion) significantly mediated the relationship between the independent variable of PTSD-related symptoms (A) (STAXI, CDI, PTCI, A-DES) and the dependent variable of PTSD symptomatology (C) (CPTSD-I). For the second hypothesis, a model was tested to

determine if ethnic identity variables (MEIM) (B) significantly mediated the relationship between the independent variable of PTSD-related symptoms (A) (STAXI, CDI, PTCI, and A-DES) and the dependent variable of PTSD (C) (CPTSD-I). For hypothesis one, specific predictive models emerged using regression analyses with multiple continuous independent variables and one continuous dependent variable. For hypothesis two, ethnic identity did not meet initial criteria to function as a mediation variable. One MEIM variable, other-group orientation emerged as a potential mediator in a specific predictive model using regression analyses with multiple continuous independent variables and one continuous dependent variable.

Analysis of variance tested the overall significance of each predictive model and the derived R^2 helped to describe the proportion of variance explained by the independent variables in a model. Derived beta weights (β) for each independent variable examined which independent variables provided primary contributions to a model. Mediational analyses using the Baron and Kenny (1986) approach occurred after these procedures.

Hypothesis Three

The third hypothesis had two components, (1) African-American and multiracial ethnic/racial status would strengthen the ethnic identity mediational relationship between PTSD-related symptoms and PTSD, and (2) Hispanic and Asian-American race/ethnicity would strengthen the family environment mediational relationship between PTSD-related symptoms and PTSD. The third hypothesis was not examined because hypothesis one and hypothesis two analyses did not identify a significant mediational model.

Post-Hoc Analyses

Chi-square analyses and T-tests explored the influence of race/ethnicity among the independent variables, dependent variable, and hypothesized mediators. Chi-square tests of independence examined PTSD diagnoses and FES family typology across racial and ethnic groups. FES family typology was a categorical variable. Each youth's highest FES subscale standard score was selected to represent that individual's family typology, or most prominent family type. If a youth's highest FES subscale standard score was a cohesion score of 67, this youth's most prominent family typology would be cohesive. Independent-samples t-tests examined potential differences among ethnic/racial groups in PTSD related-symptoms (depression, dissociation, anger, negative cognitions), PTSD symptom cluster scores (reexperiencing, avoidance/numbing, increased arousal, and significant distress symptoms), and hypothesized mediators (family environment and ethnic identity).

CHAPTER 4

DATA ANALYSIS

Hypothesis One and Hypothesis Two

Pearson Correlations among PTSD-Related Symptoms and PTSD

Significant correlational relationships were found between (1) depression (r=.37, $p \leq .01$) and negative cognitions (r=.35, $p \leq .01$) and (2) PTSD symptomatology. A trend occurred in the relationship between dissociation and PTSD symptomatology (r=.25, p=.07). Anger scales did not correlate with PTSD symptomatology. Correlational findings were used to identify specific predictive models for hypotheses one and two.

Linear Regression between PTSD-Related Symptoms and PTSD Symptomatology

Independent linear regression analyses indicated that negative cognitions (R^2=.12; F(1, 48)=6.7, $p \leq .01$), depression (R^2=.14, F(1, 47)=7.73, $p \leq .01$), and STAXI: anger-in (R^2=.08, F(1, 48)=4.16, $p \leq .05$) scores contributed to PTSD symptomatology. A trend indicated that dissociation (R^2=.06, F(1, 48)=3.4, p=.08) may partially contribute to PTSD symptomatology. Along with correlational findings and study hypotheses, linear regression results also helped identify specific predictive models for hypotheses one and two. PTSD-related symptoms and hypothesized mediators were grouped together according to which variables most strongly related to PTSD symptoms. These groupings, or potential mediational models, were subsequently examined in hypotheses one and two.

Hypothesis One

Depression, anger, and negative cognitions and PTSD mediated by family expressiveness. A model was tested to determine if family environment (B) (FES standard scores) was a significant mediator in the relationship between the independent variable of PTSD-related symptoms (A) (STAXI, CDI, and PTCI) and the dependent variable of PTSD symptomatology (C) (CPTSD-I). A model involving (1) depression, negative cognitions, and anger (feeling like expressing anger physically) as independent variables and (2) PTSD symptomatology as the dependent variable was significant (R^2=.19; F(3, 45)=3.56, p=.02). Despite the significance of the overall model, an examination of the standardized coefficients of each independent variable revealed that none of the individual independent variables contributed significantly to this effect. In addition, a model involving (1) depression, negative cognitions, and feeling like expressing anger physically as independent variables and (2) family expressiveness as a criterion variable was significant (R^2=.16; F(3, 44)=2.86, p=.04). Analyses were thus employed to determine if family expressiveness mediated (1) depression and (2) PTSD symptomatology; (1) negative cognitions and (2) PTSD symptomatology; and (1) feeling like expressing anger physically and (2) PTSD symptomatology.

With respect to each of the analyses, the overall model of depression, negative cognitions, and feeling like expressing anger physically (A) and family expressiveness (B) significantly predicted PTSD symptomatology (C) (p=.01). The regression path of feeling like expressing anger physically (A) to PTSD symptomatology (C) reflected a trend (β =-.25, p=.08). Depression and negative cognitions and family expressiveness

did not significantly predict PTSD symptomatology. Subsequent analyses, including Sobel test calculations, were not significant.

Dissociation and negative cognitions and PTSD mediated by family expressiveness. A model involving (1) dissociation and negative cognitions as independent variables and (2) PTSD symptomatology as the dependent variable was significant (R^2=-.12; F(2, 47)=3.31, *p*=.04). An examination of the independent variable standardized coefficients indicated that negative cognitions almost reached statistical significance (β=.38, *p*=.08). Dissociation did not contribute to this effect. In addition, a model involving (1) dissociation and negative cognitions as independent variables and (2) family expressiveness as a criterion variable was significant (R^2=.12; F(2, 46)=3.29, *p*=.04). Analyses were thus employed to determine if family expressiveness mediated (1) dissociation and (2) PTSD symptomatology, and (1) negative cognitions and (2) PTSD symptomatology.

With respect to each of the analyses, the overall model of depression and negative cognitions (A) and family expressiveness (B) significantly predicted PTSD symptomatology (C) (*p*=.05). However, none of the individual regression paths significantly predicted PTSD symptomatology. Subsequent analyses, including Sobel test calculations were not significant.

Depression and negative cognitions and PTSD mediated by family expressiveness. A model involving (1) depression and negative cognitions as independent variables and (2) PTSD symptomatology as the dependent variable was significant (R^2=.15; F(2, 46)=4.08, *p*=.02). An examination of the standardized coefficients of each independent variable indicated that the individual variables did not significantly affect PTSD symptoms. In

addition, a model involving (1) depression and negative cognitions as independent variables and (2) family expressiveness as a criterion variable was significant (R^2=.13; F(2, 45)=3.23, *p*=.04). Analyses were thus employed to determine if family expressiveness mediated (1) depression and (2) PTSD symptomatology, and (1) negative cognitions and (2) PTSD symptomatology.

With respect to each of the analyses, the overall model of depression and negative cognitions (A) and family expressiveness (B) significantly predicted PTSD symptomatology (C) (*p*=.02). The individual regression coefficients of depression, negative cognitions, and family expressiveness did not significantly predict PTSD symptomatology. Subsequent analyses, including Sobel test calculations, were not significant.

Dissociation and PTSD mediated by family conflict. A model involving (1) dissociation as an independent variable and (2) PTSD symptomatology as the dependent variable revealed a trend (R^2=.06; F(1, 48)=3.4, *p*=.07). An examination of the standardized regression coefficient revealed that dissociation (A) almost reached statistical significance in predicting PTSD symptoms (C) (β=.25). In addition, a model involving (1) dissociation as the independent variable and (2) family conflict as the criterion variable was significant (R^2=.08; F(1, 47)=4.17, *p*=.04) (β=.28). Analyses helped determine if family conflict mediated (1) dissociation and (2) PTSD symptomatology.

With respect to the analyses, the overall model of dissociation (A) and family conflict (B) significantly predicted PTSD symptomatology (C) (*p*=.01). The individual regression coefficient of dissociation (β=.17) no longer predicted PTSD

symptomatology. Family conflict significantly predicted PTSD symptomatology (β=.35, p=.01). However, subsequent Sobel test calculations were not significant.

Depression and anger and PTSD mediated by family cohesion. A model involving (1) depression and control of anger-in as independent variables and (2) PTSD symptomatology as the dependent variable was significant (R^2=.14; F(2, 46)=3.78, p=.03). Depression (β=.37, p=.01) contributed significantly to this effect. In addition, a model involving (1) depression and control of anger-in as the independent variables and (2) family cohesion as a criterion variable was significant (R^2=.19; F(2, 45)=5.28, $p \leq .01$). Depression contributed significantly to this effect (β=-.34, p=.01). Analyses were thus employed to determine if family cohesion mediated (1) depression and (2) PTSD symptomatology, and (1) control of anger-in and (2) PTSD symptomatology.

With respect to the analyses, the overall model of depression and control of anger-in (A) and family cohesion (B) significantly predicted PTSD symptomatology (C) (p=.01). The individual regression coefficient of depression (β=.24, p=.08) no longer significantly predicted PTSD symptomatology. Family cohesion significantly predicted PTSD symptomatology (β=-.41, p=.01). The individual regression coefficient of control of anger-in did not significantly predict PTSD symptomatology. Subsequent Sobel test calculations were not significant.

Hypothesis Two

Dissociation and negative cognitions and PTSD mediated by other-group orientation. A model involving (1) dissociation and negative cognitions as independent variables and (2) PTSD symptomatology as the dependent variable was significant (R^2=.12; F(2, 47)=3.32, p=.04). A trend indicated that negative cognitions (β=.38, p=.08)

almost reached statistical significance in relation to this affect. Dissociation did not significantly contribute to this affect. In addition, a model involving (1) dissociation and negative cognitions as the independent variables and (2) ethnic identity, other-group orientation as a criterion variable was close to reaching statistical significance (R^2=.11; F(2, 47)=2.89, *p*=.06). Negative cognitions (β=-.52, *p*=.02) contributed significantly to this affect. A trend indicated that dissociation almost reached statistical significance in relation to this effect (β=.38, *p*=.08). Analyses were thus employed to determine if other-group orientation mediated (1) dissociation and (2) PTSD symptomatology, and (1) negative cognitions and (2) PTSD symptomatology.

With respect to the analyses, the overall model of dissociation and negative cognitions (A) and other-group orientation (B) did not significantly predict PTSD symptomatology (C) (*p*=.09). The individual regression coefficient of negative cognitions (β=.41, *p*=.08) and dissociation (β=-.06, *p*=.7) were reduced and no longer significantly predicted PTSD symptomatology. Other-group orientation did not significantly contribute to this effect. Subsequent Sobel test calculations were also not significant.

Post-Hoc Analyses

Chi-Square Tests of Independence

Race/ethnicity and PTSD. Comparisons were made of PTSD diagnoses across racial/ ethnic groups. Subclinical/clinical and negative cases of PTSD according to CPTSD-I diagnoses by ethnicity and race are in Table 4. A chi-square test of independence compared the prevalence rates of PTSD negative and PTSD positive (acute and chronic) across ethnicity/race (Table 13). The chi square analyses were not significant.

Race/ethnicity and family typology. A chi-square test of independence examined most prominent family type across ethnicity/race (Table 11). Youths who indicated more than one prominent family type were not included in the chi-square analyses (N=7). The chi-square analysis of most prominent family type across ethnicity/race was not significant.

Independent-Samples T-Tests among Race/Ethnicity and PTSD-Related Symptoms

Independent-samples t-tests examined PTSD-related symptoms (depression, dissociation, anger, and negative cognitions) among five ethnic groups (African-American, Asian-American, European-American, Hispanic, and multiracial). Demographic comparisons helped identify the specific differences among the ethnic groups.

Comparisons between African-American and Asian-American participants. A trend indicated that African-Americans (M=10.3, SD=11.4) reported higher total A-DES Dissociated Identity scores than Asian-American participants (M=3, SD=3.16), $t(15.9)=2.14$, $p \leq .05$. The former analysis used unequal variance test statistics as Levene's test for equality of variances was significant ($p \leq .05$). Remaining analyses indicated that African-American and Asian-American participants were similar in mean PTSD-related symptom scores.

Comparisons between European-American participants and Asian-American participants. A trend indicated that European-Americans (M=2.1, SD=1.26) reported higher mean CDI Ineffectiveness scores than Asian-American participants (M=.75, SD=.5), $t(11)=2.03$, p=.06. European-Americans reported higher mean A-DES Dissociated Identity (European-Americans: M=17.8, SD=14.27; Asian-Americans: M=3,

SD=3.16) and A-DES Dissociative Amnesia (European-Americans: *M*=32, *SD*=21.15; Asian-Americans: *M*=8, *SD*=10.2) scores than Asian-American participants, $t(9.55)=2.97, p \leq .01$ and $t(11)=-2.12, p \leq .05$, respectively. In the former analyses, unequal variance test statistics were used (Levene's test for equality of variances $=p \leq .01$). Additional analyses indicated a trend for European-Americans (*M*=51.3, *SD*=36.27) reporting higher mean A-DES Depersonalization/Derealization scores than Asian-American participants (*M*=18.25, *SD*=13.59), $t(10.9)=-2.38, p \leq .05$.

Comparisons between multiracial participants and Asian-American participants. Multiracial participants (*M*=10, *SD*=10.96) reported higher mean A-DES Dissociated Identity scores than Asian-American participants (*M*=3, *SD*=3.16), $t(19)=-1.25, p \leq .05$. The former analyses used unequal variance test statistics (Levene's test for equality of variances $=p \leq .05$). Multiracial and Asian-American participants were similar with respect to other symptom scores.

Comparisons between African-American participants and Hispanic participants. A trend indicated that African-Americans (*M*= 3.71, *SD*=3.05) reported higher mean CDI Negative Mood scores than Hispanic participants (*M*=1.4, *SD*=1.14), $t(16.8)=1.63, p \leq .05$. The former analysis used unequal variance test statistics (Levene's test for equality of variances $=p \leq .01$). African-Americans (*M*=37.3, *SD*=6) reported higher mean PTCI Negative Cognitions about the World scores than Hispanic participants (*M*=21.4, *SD*=8.29), $t(17)=4.62, p \leq .01$.

Comparisons between African-American participants and multiracial participants. African-Americans (*M*=6.14, *SD*=3.34) reported higher mean CDI Anhedonia scores than multiracial participants (*M*=3.88, *SD*=2.99), $t(29)=1.98, p \leq .05$. Other comparisons

of PTSD-related symptoms between African-American and multiracial participants were not significant.

Comparisons between European-American participants and Hispanic participants. European-Americans (M=5.2, SD=3.03) reported higher mean CDI Negative Mood scores than Hispanic participants (M=1.4, SD=1.14), $t(12)=2.67, p \leq .05$. A trend indicated that European-Americans (M=1.6, SD=1.87) reported higher mean CDI Interpersonal Problem scores than Hispanic participants (M=.25, SD=.5), $t(10.08)=2.11$, $p=.06$. European-Americans (M=2.4, SD=2.06) reported higher mean CDI Negative Self-Esteem scores than Hispanic participants (M=.4, SD=.89), $t(11.6)=2.56, p \leq .05$. The former two analyses used unequal variance test statistics (Levene's test for equality of variances $=p \leq .05$).

Comparisons between multiracial participants and European-American participants. European-Americans (M=32, SD=21.1) reported higher mean A-DES Dissociative Amnesia scores than multiracial participants (M=16.5, SD=14.6), $t(24)=2.19, p \leq .05$). European-Americans (M=19.7, SD=5.5) reported higher mean STAXI Anger-Out scores than multiracial participants (M=15.2, SD=4.3), $t(24)=2.32, p \leq .05$.

Comparisons between multiracial participants and Hispanic participants. Hispanics (M=1.4, SD=1.14; M=.25, SD=.5) reported lower mean CDI Negative Mood and Interpersonal Problems scores than multiracial participants (M=3.8, SD=3.4; M=1.5, SD=1.5), $t(19.4)=-1.52, p \leq .05$ and $t(16.25)=-1.61, p \leq .01$, respectively. The former two analyses used unequal variance test statistics (Levene's test for equality of variances $=p \leq .05$).

Independent-Samples T-Tests among Race/Ethnicity and PTSD

Independent-samples t-tests were conducted to examine if PTSD total scores (range=0 to 6) and PTSD symptom cluster scores (reexperiencing, avoidance/numbing, increased arousal, significant distress symptoms) significantly differed among five ethnic groups (African-American, Asian-American, European-American, Hispanic, and multiracial). PTSD total mean scores and symptom cluster mean scores did not differ among racial/ethnic groups with the exception of one finding between African-American and Asian-American participants.

African-Americans (M=5.4, SD = 1) reported lower mean PTSD diagnostic scores than Asian-American participants (M=6, SD=.0), $t(13)=2.1$, $p \leq .05$. The former analysis used unequal variance test statistics. The variances for African-Americans and Asian-Americans differed significantly from each other ($p \leq .01$). Remaining analyses indicated that African-American and Asian-American participants had similar mean scores of PTSD symptomatology.

Independent-Samples T-Tests among Race/Ethnicity and Hypothesized Mediators

Independent-samples t-tests examined if ethnic identity (MEIM variables) and family environment (FES) significantly differed among five ethnic groups (African-American, Asian-American, European-American, Hispanic, and multiracial). Demographic comparisons helped identify the specific differences among the ethnic groups. Most of the family environment and ethnic identity variables were not significantly different among ethnic/racial groups.

Ethnicity/race and family environment. Hispanics (M=56, SD=7.58) reported higher mean FES Organization standard scores than Asian-American participants (M=42.5,

SD=6.35; $t(7)$=-2.84, $p \leq .05$) and European-Americans (M=43, SD=8.14; $t(12)$=-2.93, $p \leq .01$). Multiracial participants (M=46.5, SD=10.25) reported higher mean FES Expressiveness standard scores than Asian-American participants (M=32.5, SD=7.54; $t(18)$ =-2.55, $p \leq .05$) and European-American participants (M=37, SD=10.85; $t(23)$=-2.19, $p \leq .05$).

African-Americans (M=58.5, SD=7.5) reported higher mean FES Moral-Religious Emphasis standard scores than European-American participants (M=43.7, SD=9.05), $t(21)$=4.23, $p \leq .01$. A trend indicated that European-Americans (M=24.5, SD=14.8) reported lower FES Cohesion standard scores than Hispanic participants (M=42.4, SD=17.2); $t(12)$=-2.04, p=.06. A trend indicated that European-Americans (M=43.7, SD=9.05) reported lower FES Moral-Religious Emphasis standard scores than Hispanic participants (M=54, SD=9.1); $t(12)$=-2.02, p=.06.

Ethnicity/race and ethnic identity. Concerning ethnic identity variables, a trend indicated that African-Americans (M=39.4, SD=6.61) reported higher mean MEIM Ethnic Identity scores than European-American participants (M=34.4, SD=4.66), $t(21)$=1.96, p=.06. European-American (M=3.5, SD=1.3) reported lower mean Ethnic Behavior scores than multiracial participants (M=5.3, SD=1.4), $t(24)$=-3.08, $p \leq .01$).

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Discussion of Results

A primary goal of this study was to develop a comprehensive and empirically based model of PTSD-related psychopathology, PTSD, and potential mediating variables among adolescents with trauma histories. Family environment and ethnic identity variables were expected to mediate the relationship between PTSD-related symptoms and PTSD symptoms. A secondary goal involved discerning the influence of race and ethnicity in this model. Study results support past research in which particular symptoms contribute to and maintain diagnoses of PTSD in maltreated youths (Andrews, Brewin, Rose, & Kirk, 2000; Bryant, 2007; Ehlers & Clark, 2000; Feeny et al., 2000; Lemos-Miller & Kearney, 2006; Linning & Kearney, 2004; Paunovic, 1998; Wolfe, Sas, & Wekerle, 1994).

As hypothesized, the independent variables of PTSD-related symptoms (depression, dissociation, negative cognitions, and anger) contributed to the dependent variable of PTSD symptoms. Depression, negative cognitions, and suppression of anger-in scores contributed to PTSD diagnostic symptoms. Dissociation also contributed to PTSD diagnostic symptoms as a trend. Family environment and ethnic identity variables were not mediators in the relationship between PTSD-related symptoms and PTSD. Some

family environment variables were correlated with PTSD-related symptoms and PTSD. Correlational findings related to ethnic identity were not significant. Other-group orientation related to several anger subscales. Other-group orientation is not a direct component of ethnic identity but may relate to ethnic identity (Phinney, 1992; Worrell, 2000).

Post-hoc analyses examined the influence of race/ethnicity in PTSD symptom presentations. Similar to past research, PTSD diagnostic symptoms were similar across racial/ethnic groups (Lemos-Miller & Kearney, 2006). Some racial/ethnic variations in PTSD-related symptoms and family environment emerged. Ethnic identity scores were similar across racial/ethnic groups with two exceptions. Compared to European-Americans, African-American adolescents had higher ethnic identity scores and multiracial youths had higher ethnic behavior scores.

PTSD Symptom Presentations

PTSD is inextricably linked to, or maintained by, depression and trauma-related cognitions. Increased depression, trauma-related cognitions, and suppression of internal angry feelings predicted increased PTSD symptoms. The relationships between dissociation and PTSD symptomatology and general anger and PTSD symptomatology are less clear. Dissociation scores did not influence PTSD diagnostic symptomatology. General anger, state anger, and trait anger did not contribute to PTSD symptomatology.

Increased dissociation was associated with increased PTSD symptomatology, but the relationship was not robust. The lack of a significant association between PTSD scores and dissociation is similar to a previous study involving traumatized adolescents (Lemos-Miller, 2005). The relationship between dissociation and PTSD may represent a non-

linear relationship. Non-linear relationships are more discernible with statistically sophisticated examinations of PTSD presentations (Bryant, 2007). Using structural equation modeling, Lemos-Miller and Kearney (2006) analyzed a mediation model whereby increased dissociative symptoms and trauma-related cognitions contributed to increased PTSD symptomatology. Increased depressive symptoms mediated this relationship. The smaller sample size in the current study limited use of sophisticated analyses such as structural equation modeling.

Many researchers posit that dissociation is an important variable in reactions to trauma and development of PTSD (Bryant, 2007; Lemos-Miller & Kearney, 2006; Putnam, 1996; van der Kolk et al., 1996). Individuals with high rates of dissociation may restrict emotional awareness and processing of trauma experiences and impede recovery (Feeny et al., 2002). Experiences of trauma-related dissociation may occur more prominently in children than adolescents and in certain types of trauma such as sexual abuse (Armstrong et al., 1997; Putnam, 1996; Ross et al., 1989). Dissociation is also a difficult construct to define and measure, with rates of trauma-related dissociation varying across studies (Bryant, 2007; Putnam, 1996). The predictive effect of dissociation in relation to PTSD may strengthen with increased sample size.

Anger did not contribute to PTSD symptomatology. Most studies implicating anger as a prominent trauma symptom focus on adult trauma (Orth & Wieland, 2006; Saigh, Yasik, Oberfield, & Halamandaris, 2007). Higher anger scores in youths with PTSD compared to (1) youths without PTSD and (2) youths without trauma histories are evident (Saigh et al., 2007). Increased anger is a diagnostic symptom of PTSD, but

several studies implicate anger as playing a more significant role in trauma reactions (Orth & Wieland, 2006).

According to a recent meta-analysis of 39 studies, PTSD is associated with anger among adult samples (Orth & Wieland, 2006). The relationship between suppression of anger and PTSD revealed a large effect size. Authors posited that anger suppression represents a ruminative aspect of anger compared to other types of anger expression. This ruminative-like anger may relate to PTSD reexperiencing symptoms. In the current study, suppression of anger scores contributed to PTSD symptoms but did not relate to PTSD reexperiencing symptoms. Discernible relationships among remaining anger components and PTSD were not evident. Based on past literature, anger and adolescent PTSD are related (Saigh, Yasik, Oberfield, & Halamandaris, 2007). Further explorations can examine the specific role of anger in adolescent PTSD development.

Several studies indicate that anger with depression, dissociation, and negative cognitions are significant predictors and maintaining variables in PTSD symptoms (Ehlers & Clark, 2000; Ehlers et al., 2003; Feeny et al., 2000; Lemos-Miller & Kearney, 2006; Paunovic, 1998). Determining the cumulative impact and individual contributions of these symptoms to PTSD development is less clear. Some researchers implicate depression as the key variable in PTSD development (Dixon et al., 2005; Feeney et al., 2000). Lemos-Miller and Kearney (2006) reported that depressive symptoms mediated the relationship between (1) dissociation and trauma related cognitions and (2) PTSD symptomatology. Ehlers and Clark (2000), however, posited that trauma-related cognitions are key contributors to subsequent anger, dissociation, depression, and PTSD.

Ehlers and Clark (2000) posited that negative attributions or beliefs reflect faulty information processing of a trauma. These trauma-related appraisals lead to symptoms of anger, anxiety, and sadness. When subsequent PTSD symptoms occur, these individuals try to cope with symptoms via dissociation/avoidance strategies.

PTSD diagnoses are not solely sufficient in explaining reactions to trauma. Comprehensive models outlining trauma symptom development are crucial to understand the impact of multiple traumatic events. Based on this study, depression and negative trauma-related cognitions are salient variables in PTSD presentations. Increased feelings of sadness and irrational self-blame or perceptions of a trauma appear to contribute to more severe presentations of PTSD.

PTSD-Related Symptoms, PTSD, and Ethnic Identity and Family Environment

PTSD-related symptoms and family environment. Based on the current study and past literature, family environment appears to relate to trauma-related reactions (Downey & Walker, 1992). A major caveat to the following discussion is that current findings related to PTSD-related symptoms and family dynamics did not reflect linear or causal relationships. In the present study, less family cohesion, expressiveness, and increased family conflict related to youth trauma symptoms.

Youths in families that encourage less expressiveness among members may express anger physically (e.g., wanting to break things or hit) and have more trauma-related symptomatology (depression, negative cognitions, dissociation). Conversely, higher levels of family expressiveness, cohesion, and interest in intellectual-cultural activities related to increased attempts to calm down and reduce internal feelings of anger. Youths in more cohesive and expressive families may not want to disrupt familial harmony when

angry or may utilize healthy self-soothing coping strategies when angered. In contrast, increased family conflict related to angry reactions when criticized, negatively evaluated, or perceiving disrespect. Less cohesion also related to increased depression.

Feeling supported by and committed to one's family may provide motivation to manage angry feelings in an immediate and healthy manner (e.g., calming/self-soothing) as opposed to expressing anger verbally or physically or having angry reactions. One potential drawback to immediately reducing internal feelings of anger is that this coping strategy may result in less open and appropriate assertion when feeling frustrated. Based on the association with this variable and family expressiveness, these youths may express feelings when appropriate or in other situations.

PTSD-related symptoms and ethnic identity. Ethnic identity was not associated with PTSD-related symptoms or PTSD. Other-group orientation related to several anger components. Other-group orientation is not a component of ethnic identity but may relate to ethnic identity and socialization patterns influenced by ethnicity/race (Phinney, 1992). Increased acceptance of and involvement with individuals outside one's identified group related to lower levels of experiencing intense anger and an increased need to reduce obvious signs of anger expression (e.g., facial expressions, appearing angry) and internal anger.

Individuals promoting harmony and acceptance among multi-ethnic individuals may be more likely to avoid conflict when angered and immediately try to reduce inward feelings of anger. These individuals are interested in accepting others and enjoy involvement with members from other ethnic groups (Phinney, 1992). This interest and

acceptance may contribute to cooperative relationships. These cooperative relationships may foster less intense feelings of anger.

PTSD and family environment. Commonalities exist in family dynamics among maltreating families and family environment clearly influences youth psychological functioning (Beavers & Hampson, 2003; Burton & Jarrett, 2000; Conte & Schuerman, 1987). A higher level of conflict and control and lower expressiveness, organization, and support may occur among abusive families (Dadds et al., 1991; Davis & Graybill, 1983; Conte & Schuerman, 1987; Glaser et al., 1993; Williamson et al., 1991). Subsequently, less supportive family dynamics may relate to increased psychological symptoms among maltreated youths (Conte & Schuerman; 1987). Past maltreatment studies, however, did not specifically examine family dynamics in relation to youth trauma reactions and adolescent PTSD (Shaw et al., 2001).

Based on the current study, a supportive and structured family environment in which members have clear boundaries and responsibilities may protect youths from more PTSD diagnostic symptoms. Youths from families that manage disagreements in a healthy manner as opposed to openly expressing anger and discord may also experience less PTSD symptoms. Fewer adolescent PTSD symptoms after a traumatic event are evident in youths with families that place importance on morality, religious values, achievement, and participation in youth groups, clubs, or sports.

Racial/Ethnic Variations in PTSD Diagnoses

The present study examined PTSD related-symptoms, PTSD diagnoses, and ethnic identity and family environment among African-American, Asian-American, European-American, Hispanic, and multiracial adolescents. Similar to previous studies, PTSD

prevalence rates were similar across racial/ethnic groups (Abram et al., 2004; Adams & Boscarino, 2005; Berton & Stabb, 1996; Lemos-Miller & Kearney, 2006; Montoya et al., 2003; Vernberg et al., 1996). One exception was that Asian-American adolescents reported higher PTSD diagnostic scores than African-American adolescents. Due to the low number of Asian-American participants in the current sample and deviation from previous studies, this result may not replicate in future studies.

Ethnicity/Race, PTSD-Related Symptoms, and Hypothesized Mediators

European-American and Asian-American, Hispanic, and multiracial adolescents. European-American adolescents generally reported more depressive symptoms compared to Hispanics and Asian-Americans. They also reported more feelings of ineffectiveness and depersonalization/derealization compared to Asian-Americans and higher dissociative amnesia and anger-out scores than multiracial adolescents. European-American adolescents did not differ from other racial/ethnic groups in PTSD prevalence rates or PTSD diagnostic symptom clusters. Small sample sizes among each racial/ethnic group prevented sophisticated analyses of potential mediators of PTSD-related symptoms.

European-Americans differed from Hispanic adolescents and multiracial adolescents in certain family environment aspects. Compared to Hispanics, European-Americans reported households with less emphasis on moral and religious values, household organization/structure, and family commitment and support. These family dynamics may place European-American adolescents at a higher risk for experiencing increased negative self-esteem, negative mood, and interpersonal difficulties than Hispanic youths.

These findings correspond with past studies of Hispanic family functioning. Among many Hispanics, a greater emphasis is placed on cohesion, family obligations/relations, and respect compared to European-American families (Cauce & Domenech-Rodriguez, 2000; Fuligni et al., 1999; Inclan & Quinones, 2003; Organista, 2003). Hispanic parents may place a greater emphasis on values of respect and morality in children to maintain interpersonal relationship and avoid direct conflict (Azmita & Brown, 2003; Fuligni et al., 1999; Organista, 2003). The maintenance of *familism* in many Hispanic families is important because *familism* and cohesion provide support and contribute to healthier family and youth functioning (Coohey, 2001; Lindhall & Malik, 1999; Perilla et al., 2002; Vega, 1995). Family cohesion is a strong protective variable in Hispanic boys compared to other ethnic groups (Lindhal & Malik, 1999).

Compared to European-American youths, more family expressiveness and encouragement to discuss feelings and thoughts may protect multiracial youths against increased dissociative memory lapses and anger expression via physical/verbal aggression. European-American youths reported more instances of repressing traumatic memories and physical/verbal anger expression. European-Americans also engaged in less ethnic behaviors than multiracial adolescents and had lower ethnic identity scores than African-Americans. These findings correspond with past research in which adolescents from other ethnic/racial groups report higher levels of positive ethnic identities compared to European-American adolescents (Bracey et al., 2004; Phinney, 1992). Ethnic identity levels were similar in European-American, Hispanic, and Asian-American adolescents.

Multiracial and Asian-American adolescents. Multiracial adolescents reported more family expressiveness than Asian-Americans. Although Asian-Americans are not homogeneous, Asian-American parents may more often discourage the expression of emotions and outright affection and encourage family responsibility and respect above personal needs and desires (Ho, 1992; Nguyen & Williams, 1989; Ying et al., 1999). Asian-American family expressiveness scores were similar compared to other groups.

African-American and multiracial and Hispanic adolescents. African-American adolescents reported more anhedonia than multiracial adolescents and higher levels of family moral-religious emphasis and ethnic identity scores than European-American adolescents. Compared to other groups, higher ethnic identity scores among African-Americans may relate to increased experiences of racial distinctiveness, racism, and prejudice (Boyd-Franklin, 2003; McCubbin et al., 1998; Phinney, 1992). Similar to current findings, African-American families often report strong kin networks or social networks that may consist of clergy members (Chatters et al., 1994; Taylor, 1996; Taylor et al., 1993). Active religious involvement and valuation may contribute to optimal functioning in African-American youths (Ball et al., 2003).

Ethnic identity and family environment did not mediate psychopathology in the current study. African-American adolescents reported more negative cognitions about the world and negative mood compared to Hispanic adolescents. Family environment variables did not differ between African-American and Hispanic youths. These findings may correspond with past literature. Many African-American parents report helping their children foster resilience against racism, discrimination, and deteriorating neighborhoods (Boyd-Franklin, 2003; Taylor, 2000). Parents who specifically teach

children about racial issues may foster healthy adolescent ethnic identity development (Marshall, 1995). Viewing one's group as positive and strong ethnic identification may help African-American adolescents cope with difficult situations and discrimination (Brook et al., 1998; Caldwell et al., 2002; Wong et al., 2003). Adolescents who strongly believe they are a member of an ethnic minority group and perceive race as a major part of self-identity are also vulnerable to perceiving more events as discriminating (Caldwell et al., 2002; Sellers et al., 2006). Among African-Americans in the present study, increased awareness of racial issues combined with the experience of trauma may foster more negative beliefs and perceptions about the world.

Clinical Implications

The present study provides important contributions to the study of adolescent PTSD with particular importance on the influence of family environments to trauma reactions. Clinicians will have a greater awareness of symptom areas and contextual factors to assess when working with traumatized youths. Researchers examining adolescent PTSD will have more information concerning deleterious effects of multiple and severe trauma events in youths. The findings in this study also provide guidance to future researchers who aim to study cultural issues that may influence PTSD presentations, such as ethnic identity.

Current trends in the study of adolescent trauma revolve around the construct of complex trauma (Cook et al., 2005; Courtois, 2004; Margolin & Vickerman, 2007; Williams, 2006). Complex trauma is the experience and concordant symptomatology of multiple interrelated and cumulative trauma events. Experts in the area of childhood trauma question whether the construct of PTSD fully explains youth trauma reactions,

especially when youths have experienced multiple, cumulative, and severe traumas. Child maltreatment also appears to be a more salient experience compared to other adverse childhood experiences, and may place a child at risk for experiencing additional trauma (Browne & Lynch, 1999; Cook et al., 2005).

The present study indicates that many youths involved in the child welfare system experience multiple, cumulative, and severe traumas. A majority of youths in the current sample also reported placement disruptions involving family separations. The current sample exhibited higher prevalence rates of PTSD compared to past studies of traumatized youths without social service involvement. Higher levels of negative cognitions and depression contributed to increased PTSD diagnostic symptomatology. To a lesser extent, increased control of inward anger, followed by increased dissociation, contributed to increased PTSD diagnostic symptomatology. Family environment was also associated with some PTSD-related symptoms. Findings related to ethnic identity and trauma symptomatology were not significant.

Fully comprehending reactions to complex trauma requires an examination of multiple emotional and behavioral symptoms, contextual variables (e.g., trauma history, family dynamics, etc.), and PTSD. Clinicians who solely assess for PTSD, and researchers who solely examine PTSD in traumatized children, may not fully understand the various and complex difficulties and risk and resilience variables associated with youth functioning. Empirically based models of PTSD presentations in diverse adolescents will help clinicians and researchers fully understand complex trauma exposure. In the current study, symptom presentations slightly differed among racial/ethnic groups. Certain ethnic/racial groups, such as African-Americans, are also

disproportionately affected by child welfare involvement and services received in foster care compared to other racial/ethnic groups (Courtney & Skyles, 2003; Fluke et al., 2003; Garland et al., 2003; Lu et al., 2004; Needell et al., 2003). Including cultural variables and race/ethnicity in these models will strengthen the generalizability of results.

The current study represents a first step in developing a cultural and family informed model of trauma symptomatology and provides direct relevance to clinicians working with traumatized youth. Current findings related to ethnic identity and trauma symptomatology were not significant, but ethnic identity and ethnic behaviors appeared to differ between European-Americans and African-American and multiracial adolescents, respectively. Clinicians working with traumatized youths need to conduct comprehensive and ongoing assessments of trauma history, family environment, and ethnic identity and culturally related behaviors. These youths often present with complex trauma histories, clinicians should assess for traumatic experiences in addition to abuse and neglect (Dong et al., 2004).

Although within-group similarities are present among these youths, clinical conceptualizations including the strengths, needs, and weaknesses of each youth will increase treatment effectiveness. The findings related to multiple trauma exposure, family environment, and trauma symptoms are directly relevant to mental health treatment. Because these children are at risk for additional trauma, clinicians can work with the youth and their family if appropriate. Social service agencies and mental health clinicians working with these youths and their families can teach prevention and safety skills to prevent future victimization. Implementing more family structure, rules, and boundaries may promote optimal functioning in traumatized youths while increasing the

well-being of the whole family. Encouraging family members to support each other and promote cohesiveness also plays an important role in protecting against PTSD.

Clinicians can also focus on reducing familial conflict and discord and teaching skills involving healthy communication of feelings and coping with difficult emotions such as anger. Youths in families that encourage direct communication of thoughts and feelings may be better able to reduce angry feelings and better manage trauma-related depression, negative cognitions, and dissociation. Encouraging families to achieve in school, work, or sports and pursue interests outside of the household, such as sports or youth groups may also promote healthy family functioning. Encouraging caregivers to teach children about familial and culturally based moral and religious values may protect against PTSD as well.

European-Americans reported lower ethnic identity and ethnic behavior scores than African-American and multiracial youths, respectively. Phinney (1992) posited that ethnic identity is less salient in European-American adolescents compared to minority group adolescents. Ethnic identity may be particularly salient for African-Americans due to racial distinctiveness. Overall, many of the comparisons among racial/ethnic groups revealed similarities in functioning and ethnic identity. Ethnic identity also did not relate to trauma symptoms. This finding does not fully correspond with past reports of youth functioning in relation to ethnic identity. Multiple researchers report that ethnic identity and healthy family environment relate to self-esteem and healthy psychological functioning in multiple domains among racial/ethnic groups (Allen et al., 1996; Dadds et al., 1991; Bracey et al., 2004; McDonald et al., 2005; Mossakowski, 2003; Szapocnik et al., 1978; Weisman, Rosales, Kymalainen, & Armesto, 2007).

Ethnicity/race and family environment appear to influence trauma symptoms. Past researchers reported ethnic/racial differences in the relationship between family environment and psychological functioning (Herman, Ostrander, & Tucker, 2007; Weisman et al., 2007). For example, Weisman and colleagues (2007) reported that among family members of adults diagnosed with schizophrenia, the relationship between family cohesion and less distress was only significant for African-Americans and Hispanics. Most past studies on family functioning among traumatized diverse youths fail to examine the relationship between family and trauma symptoms (Clay, Ellis, Griffin, Amodeo, & Fassler, 2007; Shaw et al., 2001). The studies that do examine these variables do not examine youth perceptions of family characteristics across multiple domains such as cohesion, expressiveness, or conflict.

The current study also found that particular family dynamics might protect against problematic trauma reactions. Hispanics adolescents in the current study reported less depressive-like symptoms and interpersonal problems than European-American, Multiracial, and African-American adolescents. The Hispanic and multiracial youths in this study generally reported healthier family environments compared to European-American adolescents. These family dynamics may have guarded against PTSD-related symptoms.

Whether ethnic identity, family environment, or another variable contributed to the differences in symptomatology, European-American adolescents were more likely to exhibit particular difficulties compared to multiracial and Hispanic adolescents. The more problematic family environments reported by European-American youths in this study appeared to substantially impact not only PTSD-related symptoms but ethnic

identity as well. European-Americans endorsed lower ethnic identity scores and family moral-religious emphasis than African-American youths.

Conclusions and Recommendations for Further Study

The findings of the present study are directly relevant to children with maltreatment histories and involvement with social services agencies. Limitations to study generalizability relate to sample demographics. Participants mainly consisted of youths from low-income families with complex trauma histories. Concerning low income, child maltreatment occurs in every demographic group. Certain groups of adolescents are at greater risk of experiencing trauma than others, and these groups often consist of low income or diverse adolescents. The study results are applicable to youths with child welfare involvement.

The low participant sample size and low numbers across racial and ethnic groups posed an additional study limitation. These low numbers limited the use of statistical analyses such as structural equation modeling. Mediational relationships were not significant among the study variables, and cause and effect conclusions are only speculative and require further study to discern relationships among family environment, ethnic identity, and PTSD-related symptoms and PTSD. Relationships among various contextual factors and trauma reactions may not reflect a linear model. Another caveat to these findings is that analyses of multiple t-tests may also increase Type 1 error. Increased sample sizes will allow sophisticated analyses to clarify the salience of various risk and resilience factors.

An additional limitation concerned the use of a singular data source. Data collection occurred with one source, the adolescent participants. Agency constraints prevented the

researchers from collecting data from other sources such as teachers, clinicians, or parents. Gathering additional information about youth functioning from multiple sources would strengthen the validity of the results. This limitation is particularly relevant to the family environment measurements.

The FES assesses individual perceptions of family environment (Moos & Moos, 1981). Perceived family environments may differ among family members (Weisman et al., 2005). One study reported that when two siblings independently rated family environments, scores on the FES were similar (Clay et al., 2007). Weisman and colleagues (2005) reported that perceptions of family environment differed between individuals with schizophrenia and one family member. The latter study assessed adult patients and family members were not solely from the patient's family of origin. Family members identified as parents, siblings, children, spouses, an uncle, and lifelong friend/significant other.

Future areas of study include identifying risk and resilient factors salient to complex trauma reactions. Due to the multitude of variables posited to influence youth well-being, choosing salient ones to examine is often difficult and guided by researcher interest and areas of study. Potential variables warranting further examinations include ethnic identity and family dynamics, including parent-child attachment and the influence of parents as offenders, and the role of CPS removal and neglect. Collecting parental self-report data is also useful as perceptions of family dynamics between parents and traumatized youths may differ (Weisman et al., 2005). The influence of socioeconomic status and related stressors, including race-related stressors, is also important to explore (Brook et al., 1998; Caldwell et al., 2002; Kenny & McEachern, 2007; Ory & Earp,

1981; Wolfe, 1999; Wong et al., 2003). SES was a salient variable, however, among a community sample of African-American and European-American adult females. Family environments continued to differ after controlling SES, age, and social class (Clay et al., 2007).

The current study indicated that perceptions of family environment are an important variable in PTSD. The specific role of family environment was unclear because study limitations (e.g., small sample size, low power) prevented full exploration of this effect. Ethnic identity variables did not contribute to trauma symptomatology, but past research indicates that ethnic identity is important. Several researchers have documented the salience of ethnic identity in relation to various forms of psychopathology (Gaylord-Harden, Ragsdale, Mandara, Richards, & Petersen, 2007; Greig, 2003; Phinney, 2003). Ethnic identity and family environment may indeed function as moderating variables in relation to youth functioning and may thus require careful examination to discern their influence on youth psychological functioning (Greene et al ., 2006).

A comprehensive understanding of ethnic identity as a mediating variable in youth trauma reactions may require examining youths across developmental levels. Youths in this study consisted of various ages, from latency-age adolescents to teenagers. Ethnic identity solidifies over time and may be more salient to trauma reactions in groups of older teenagers and college-age students (Phillips, 2004; Phinney, 1992; Umana-Taylor et al., 2006). Future examinations with older adolescents may clarify if ethnic identity influences trauma symptoms.

This study directly supports the use of an ecological approach when examining trauma reactions, especially in relation to youths in the child welfare system.

Adolescents in the child welfare system face unique challenges and life events. Maltreated youths are more likely to experience significant stressors in addition to trauma such as low socioeconomic status and inadequate living situations compared to youths not referred to social services agencies (Ory & Earp, 1981; Wolfe, 1999). Many of these children present with a multitude of trauma-related impairments and are in need of tailored assessment and treatment strategies. Additional examinations of complex trauma reactions will assist in developing empirically supported and effective treatments to promote optimal well-being for diverse youths and families with child welfare involvement.

APPENDIX I

DEMOGRAPHIC/INFORMATION SHEETS FOR CHILDREN

Information Sheet-C

Please fill this sheet out completely. The information you provide will be given a number so you name will not be on any papers you fill out. Please feel free to skip an item if you don't feel comfortable answering, but please try to honestly answer all questions the best you can.

1. Your ID#: ________
2. Your age: ______________________________
3. Are you: (circle one) Male Female
4. Your Race: (circle one)
   Asian African-American Caucasian Hispanic Multiracial Native American
Other____

5. Place of birth (state, and country): ____________________________________

   5a. If you were not born in the United States, what country were you born in?_______
____

6. Biological mother's race/ethnicity____________________________________

7. Biological mother's place of birth: ____________________________________

8. Biological father's race/ethnicity____________________________________
9. Biological father's place of birth: ____________________________________
10. Did mother/guardian graduate from high school? Yes No
    How many years did mother/guardian go to college or trade school after high school? ____________________________________
11. Did father/guardian graduate from high school? Yes No
    How many years did father/guardian go to college or trade school after high school?
____
12. What kind of work does mother/guardian do?
____
13. What kind of work does father/guardian do?
____
14. How many brothers and sisters do you have? ___________________________

15. Are your parents/guardians married now? (circle one)

    married never married separated divorced

16. If your parents/guardians are separated or divorced, who has custody of you? (circle one)
    joint custody (both parents) mother has custody father has custody
17. Have you ever used alcohol or drugs? Yes No
18. Does your family participate in religion on a regular basis? Yes No
19. Are you religious? Yes No
20. Is English the first language you learned? Yes No

20a. If English is not the first language you learned, what language did you first learn?____

21. Please list all the languages you are fluent in (e.g., English, Spanish, etc.)__________

22. What language do you primarily speak in your home?__________________________

THANK YOU

APPENDIX II

DEBRIEFING SCRIPT

Debriefing Script Outline for Adolescent Research Participants

(1) Participant perception of and understanding of research

(A) "Today you answered many questions relating to your past experiences, thoughts, behaviors, and feelings. Do you have any questions or comments about any of the questions we asked you or any of the forms you filled out?"

(B) "Sometimes after young people talk about bad things that happened to them they feel sad, angry, or upset. However, every person feels differently when talking about bad things that happened to them. How did you feel while answering these questions?"

(2) Description of study and offer to participate in brief treatment session

(A) "The main goal of this study is to learn how young people feel when bad things happen, and how they cope with their feelings. Often, after young people experience bad things they feel sad, lonely, angry, or upset. We are also interested in learning how to help young people and families feel better after bad things happen. Concerning this, we would like to talk to you more about your feelings surrounding your bad experience and try to help you cope with these feelings. Would you like to learn more about how to cope with any feelings you have surrounding your bad experience?"

(B) "In about one-week, we will hold a brief treatment session to teach you tools to use when you feel upset, sad, or angry. Many young people are helped by these sessions and report they feel better afterwards. Would you like to participate in this session?"

(3) Assess and ensure participant's current state of well-being

(A) Assess participant's current mental state. If participant admits to or appears to be uncomfortable or upset offer to meet with participant at a later date or offer to facilitate a meeting with child's social worker, therapist/counselor, or a trusted staff member. Lastly, ask the child "Do you have any more questions about the study?"

APPENDIX III

TABLES

Table III

Ethnicity and Race of Participants by Gender

Ethnicity/Race	Male	Female	N
Multiracial	6	11	17
African-American	6	8	14
Caucasian	4	5	9
Hispanic	4	1	5
Asian American	1	3	4
Native American	--	1	1
N	21	29	50

Table IV

Rates of Posttraumatic Stress Disorder by Gender and Ethnicity and Race

Ethnicity/Race	Sub-Clinical/clinical PTSD score		Non-clinical PTSD score	
	Males	Females	Males	Females
European-American	4	5	0	0
African-American	1	5	7	0
Hispanic	3	1	1	0
Multiracial	6	10	0	1
Asian American	1	3	0	0
Native American	--	1	--	--
N	31	27	19	4

Table V

Participants Self-Report of Experience of Trauma

Type of Trauma	yes	no
Sexual abuse	16	34
Sexual violation*	9	41
Physical abuse	20	30
Other trauma	17	33
Witness domestic violence	19	31
Witness neighborhood violence	22	28
Victim of other violence**	9	41
Experience neglect	19	31

Note. Many participants reported more than one trauma event. These categories are not discrete. *Indicates a sexual violation perpetrated by a similar age peer or a sexual violation that occurred during a robbery/kidnapping. **Indicates severe physical violence perpetrated by a bully, peer, or sibling.

Table VI

Types of Trauma/Maltreatment by Ethnicity and Race

	Physical Abuse		Sexual Abuse		Domestic Violence	
Ethnicity/Race	yes	no	yes	no	yes	no
European-American	5	4	2	7	4	5
African-American	3	11	3	22	6	8
Hispanic	2	3	1	4	2	3
Multiracial	7	10	8	9	5	12
Asian American	1	3	2	2	2	2
Native American	1	0	0	1	0	0
N	19	31	16	45	20	30

Table VII

Types of Trauma by Ethnicity and Race

	Sexual Violation		Victim Other Violence		Witness Other Violence	
Ethnicity/Race	yes	no	yes	no	yes	no
European-American	2	7	5	4	4	5
African-American	2	12	1	13	9	5
Hispanic	0	5	0	5	2	3
Multiracial	4	13	3	14	6	11
Asian American	1	3	0	4	0	4
Native American	0	1	0	1	1	0
N	9	38	9	41	22	28

Table VIII

Experiences of Neglect by Ethnicity and Race

Ethnicity/Race	yes	no
European-American	2	7
African-American	10	4
Hispanic	0	5
Multiracial	5	12
Asian American	1	3
Native American	1	0
N	19	31

Table IX

Correlations Among PTSD Symptomatology and Family Environment Scales

Family Environment Scales	PTSD Symptomatology
Cohesion	
r	-.48*
Conflict	
r	.40*
Achievement Orientation	
r	-.36*
Intellectual-Cultural Orientation	
r	-.42*
Moral-Religious Orientation	
r	-.28**
Active-Recreational Orientation	
r	-.43*
Organization	
r	-.40*

Note. * = Correlation is significant at the 0.01 level (2-tailed). ** = Correlation is significant at the 0.05 level (2-tailed).

Table X

Correlations Among Family Environment Scales and PTSD-Related Symptoms

PTSD-Related Symptoms

	Cohesion	Conflict	Expressiveness	Intellectual-Cultural Orientation
Depression				
r	-.40*	--	-.29**	--
Dissociation				
r	--	--	-.31**	--
Negative Cognitions				
r	--	--	-.35*	--
Control of Anger-In				
r	.28**	--	.35*	.33*
Angry Reaction				
r	--	.28**	--	--
Feeling Like Expressing Anger Physically				
r	--	--	-.34*	--

Note. * = Correlation is significant at the 0.01 level (2-tailed). ** = Correlation is significant at the 0.05 level (2-tailed).

Table XI

Correlations Among Anger and Multi-Group Ethnic Identity Measure: Other-Group Orientation Subscale

STAXI Subscales	MEIM Other-Group Orientation
Anger Expression	
r	-.34**
Control of Anger-Out	
r	.30*
Control of Anger-In	
r	-.30*

Note. * = Correlation is significant at the 0.01 level (2-tailed). ** = Correlation is significant at the 0.05 level (2-tailed).

Table XII

Posttraumatic Stress Disorder Diagnoses by Ethnicity and Race

Ethnicity/Race	PTSD Negative	PTSD Acute	PTSD Chronic	N
European-American	3	--	6	9
African-American	4	3	7	14
Hispanic	2	--	3	5
Multiracial	6	--	11	17
Asian American	--	2	2	4
Native American	--	--	1	1
N	15	5	30	50

Table XIII

FES Most Prominent Family Typology by Ethnicity and Race

Ethnicity/Race	C	EX	CON	IND	AO	ARO	MRE	CTL
European-American	--	--	6	--	--	--	--	2
African-American	1	1	7	--	--	--	2	3
Hispanic	--	--	1	1	1	--	--	--
Multiracial	1	--	5	14	1	1	3	3
Asian American	--	--	2	--	--	--	1	--
Native American	--	--	1	--	--	1	--	--
N	2	1	31	15	2	2	6	8

Note. C = Cohesion, EX = Expressiveness, CON = Conflict, IND = Independence, AO = Achievement Orientation, ARO = Active-Recreational Orientation, MRE = Moral-Religious Orientation, and CTL = Control.

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Dissertation Title: The Effects of Trauma Experiences in maltreated adolescents with Respect to Familial and Cultural Variables

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