

SHORT TITLE: Variations in Safe, Stable, & Nurturing Relationships

Family Context, Victimization, and Child Trauma Symptoms: Variations in Safe, Stable and Nurturing Relationships during Early and Middle Childhood

*Heather A. Turner, Ph.D.¹, David Finkelhor, Ph.D.¹, Richard Ormrod, Ph.D.¹, Sherry Hamby, Ph.D.², Rebecca T. Leeb, Ph.D.³, James A. Mercy, Ph.D.³, Melissa Holt, Ph.D.³

¹ Crimes against Children Research Center, University of New Hampshire; ² Sewanee, the University of the South;

³ Division of Violence Prevention, Centers for Disease Control and Prevention

* Corresponding Author: Crimes against Children Research Center, University of New Hampshire, 126 Horton Social Science Center, 20 Academic Way, Durham, NH 03824; Ph. (603)862-3760; Fax (603)862-1122;

E-mail: hturner@cisunix.unh.edu.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

For the purposes of compliance with Section 507 of PL 104-208 (the “Stevens Amendment”), readers are advised that 100% of the funds for this program are derived from federal sources, (this project was supported by Grant No. 2006-JW-BX-0003 awarded by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, US Department of Justice). The total amount of federal funding involved is \$1,500,000. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the US Department of Justice.

Family Context, Victimization, and Child Trauma Symptoms: Variations in Safe, Stable and Nurturing Relationships during Early and Middle Childhood

Abstract

Based on a nationally representative sample of 2,017 children age 2 to 9 years, this study examines associations between family-perpetrated victimization, variations in “safe, stable, and nurturing” relationships (SSNRs), and level of child trauma symptoms. Findings show that children are often exposed to multiple forms of victimization within the family (such as physical/sexual abuse, emotional maltreatment, child neglect, sibling victimization, and witnessing family violence), as evidenced by substantial inter-correlations among the different forms of victimization. Moreover, victimization exposure was significantly associated with several indices of parental dysfunction, family adversity, residential instability, and problematic parenting practices. Of all victimization and family context variables considered, emotional abuse and inconsistent/hostile parenting emerged as having the most powerful independent effects on child trauma symptoms. Also, findings supported a cumulative risk model whereby trauma symptom levels increased with each additional family risk and victimization type to which children were exposed. Implications for research and practice are discussed.

Key Words: child abuse, sexual abuse, bullying, exposure to violence, poly-victimization

Introduction

There is mounting evidence of the substantial effects of childhood adversity and problematic family contexts on both child well-being and the long term health of adults (Chapman, et al., 2004; Felitti, Anda, & Nordenberg, 1998; Finkelhor, Ormrod, & Turner, 2007; Turner, Finkelhor, & Ormrod, 2006). Developmental, behavioral, and biological research has convincingly demonstrated the link between early exposure to stressful events and conditions, and damage to neurological, physiologic, and psychosocial systems that, in turn, contribute to a wide array of mental and physical health impairments (Shonkoff, Boyce, & McEwen, 2009). Research suggests that younger children may be especially vulnerable to such adversity (National Scientific Council on the Developing Child, 2005), yet few epidemiologic studies have examined stress and adversity exposure in children under the age of 10 (Finkelhor, Ormrod, Turner, & Hamby, 2005b).

Although early research tended to focus on single forms of adversity, such as child physical abuse, more recent work has taken a broader perspective and considered the intersecting effects of multiple adversities (Appleyard, Egeland, van Dulmen, & Sroufe, 2005; Chapman, et al., 2004; Dong, et al., 2004), including multiple forms of child maltreatment (Manly, Kim, Rogosch, & Cicchetti, 2001; Mitchell, Finkelhor, & Wolak, 2005; Wells, Finkelhor, Wolak, & Mitchell, 2004). The need for a better understanding of how child victimization occurs within broader risk contexts has also been acknowledged (Turner, 2010; Turner, et al., 2006). Recently, the Centers for Disease Control and Prevention (CDC) has sought to integrate research on child maltreatment within the general context of family relationships, calling for the need to study and promote “safe, stable, and nurturing relationships between children and caregivers” (SSNRs) (Centers for Disease Control & Prevention, 2009). Using a nationally representative sample of

children, the purpose of this paper is to provide a preliminary investigation of the interrelationships among SSNR indicators and several forms of family-perpetrated victimization and to document their consequences for child mental health.

The Family Environment and Adversity

Exposure to adversity in childhood is very often connected to the family environment. The family is a common source of direct threats to children's personal safety and a common context for children witnessing violence (Finkelhor, Ormrod, et al., 2005b; Finkelhor, Turner, Ormrod, & Hamby, 2009). The family is also central to the development of self concept and social competencies that contribute to well-being and increase children's resiliency to adversity (Clarke-Stewart & Dunn, 2006). Considerable research on this issue has focused on maltreatment by parents or caregivers. All forms of maltreatment, including physical, emotional, and sexual abuse, or failing to provide basic needs (neglect), have been found to importantly influence child health and development (Cicchetti & Toth, 1995; Runyan, Wattam, Ikeda, Hassan, & Ramiro, 2002). Although maltreatment can represent isolated victimization events, it often occurs within a broader context of risk within the family (Cicchetti, 2004; Sidebotham & Heron, 2006; Widom, 1998). Risky family characteristics and conditions can have additional damaging effects, and contribute to or exacerbate the effects of maltreatment. Studies have shown, for example, that overt family conflict and anger, deficient nurturing, unresponsive or unsupportive parenting, and family environments characterized by stress, instability, and turmoil are associated with a wide range of emotional and behavioral problems in children (Repetti, Taylor, & Seeman, 2002).

The SSNR framework provides a means for organizing this body of research by focusing on three aspects of the family environment (Centers for Disease Control & Prevention, 2009;

Mercy & Saul, 2009). “Safety” refers to the extent to which children are free from fear and harm within their social and physical environment. The use of corporal punishment, inadequate supervision, acts of physical maltreatment and child neglect represent indicators of an unsafe family environment. “Stability” refers to consistency and predictability in the child’s environment. Inconsistent parenting practices, frequent residential moves, household changes, and events that create volatile or stressful family conditions, such as divorce and job loss, can threaten stability. An unpredictable and chaotic family environment can diminish children’s sense that the world is trustworthy, dependable, and fair and reduce caregiver’s abilities to parent effectively (Conger, et al., 2002; Kobak, Cassidy, Lyons-Ruth, & Ziv, 2006; McLoyd, 1990). “Nurturing” is characterized by availability, sensitivity, and warmth in responding to children’s needs. Nurturing relationships with caregivers contribute to children’s self esteem and confidence, social competencies, and emotional development (Belsky & Cassidy, 1994; Bowlby, 1979; Harter, 2006; Hennan, Dornbusch, Herron, & Herting, 1997). Emotional maltreatment and parental problems, like mental illness and drug or alcohol abuse, often reduce nurturing relationship qualities (Cicchetti, Rogosch, & Toth, 1998; Goodman & Gotlib, 2002; Lyons-Ruth, Lyubchik, Wolfe, & Bronfman, 2002; Roosa, Michaels, Groppenbacher, & Gersten, 1993).

Because safe, stable and nurturing behaviors exist along a continuum it is useful to examine variations in these behaviors. A better understanding of family and caregiver characteristics that create risk for child safety, stability, and nurturance, requires an examination of multiple contextual factors simultaneously with different forms of child maltreatment. This more comprehensive assessment would allow a more nuanced analysis of the independent and combined effects of family context and exposure to victimization. The current research assesses exposure to three different types of maltreatment, including physical and sexual maltreatment by

caregivers, child neglect, and emotional maltreatment. We also consider two additional forms of family-perpetrated victimization: victimization by siblings and witnessing family violence.

Given the primacy of family influence on development during young and middle childhood (Maccoby, 1984), a focus on family conditions and victimization during this period is especially important. In the present study, we assess victimization and SSNR indices among children age 2 to 9 years in a large nationally representative sample.

The goals of the current research are to: 1) assess the inter-relationships among different aspects of childhood family conditions, contexts, and experiences that represent variations in safe, stable and nurturing relationships (SSNRs). Specifically, we assess associations among 5 different forms of family-perpetrated victimization (emotional maltreatment, physical/sexual maltreatment, neglect, witnessing family violence and sibling victimization), parenting behaviors (including hostile/inconsistent parenting, the use of corporal punishment, poor supervision/monitoring of children, and warmth/involvement in the parent-child relationship), parent dysfunction (including parent psychological disorder and substance/alcohol abuse, and inter-parental conflict), family stressors (including events such as job loss, illnesses, accidents, and disasters) and household instability (including residential moves and living in multiple households); 2) examine the associations between these SSNR factors and child trauma symptoms; and 3) consider whether the mental health consequences of family stress, parent dysfunction, parenting behaviors, and household stability, are mediated by maltreatment and other family victimization exposure.

Methods

Participants

The National Survey of Children's Exposure to Violence (NatSCEV) was designed to obtain incidence and prevalence estimates of a wide range of childhood victimizations. Conducted between January 2008 and May 2008, the survey addressed the experiences of a nationally representative sample of 4,549 children age 0 to 17 years living in the contiguous United States. Given the particular importance of family influence on development during young and middle childhood, the current study focuses on the sub-sample of 2,016 children aged 2 to 9 years.

Interviews were conducted over the phone by the employees of an experienced survey research firm. Telephone interviewing is a cost-effective methodology (McAuliffe, Geller, LaBrie, Paletz, & Fournier, 1998; Weeks, Kulka, Lessler, & Whitmore, 1983) that has been demonstrated to be comparable to in-person interviews in data quality, even for reports of victimization, psychopathology, and other sensitive topics (Acierno, Resnick, Kilpatrick, & Stark-Riemer, 2003; Bajos, Spira, Ducot, & Messiah, 1992; Bermack, 1989; Czaja, 1987; Marin & Marin, 1989; Pruchno & Hayden, 2000). In fact, some evidence suggests that telephone interviews are perceived by respondents as more anonymous, less intimidating, and more private than in-person modes (Acierno, et al., 2003; Taylor, 2002) and, as a result, may encourage greater disclosure of victimization events (Acierno, et al., 2003).

The primary foundation of the design was a nationwide sampling frame of residential telephone numbers from which a sample of telephone households was drawn by random digit dialing (RDD). This nationally representative cross-section represented 67% of the completed interviews. To ensure that the study included a sizeable proportion of minorities and low-income

respondents for more accurate subgroup analyses, there was also an over-sampling of U.S. telephone exchanges that had a population of 70% or more of African American, Hispanic, or low-income households. This “over-sample” yielded 33% of the completed interviews. Sample weights were applied to adjust for differential probability of selection due to: a) study design, b) demographic variations in non-response, and c) variations in within household eligibility.

Procedure

A short interview was conducted with an adult caregiver (usually a parent) in each household to obtain family demographic information. One child was randomly selected from all eligible children living in a household by selecting the child with the most recent birthday. If the selected child was under age 10 (the target sample for the current study), the interview was conducted with the caregiver who “is most familiar with the child’s daily routine and experiences.” The interview protocol included procedures to ensure privacy throughout the interview.

Respondents were promised complete confidentiality, and were paid \$20 for their participation. The interviews, averaging 45 minutes in length, were conducted in either English or Spanish. Approximately 6% of the interviews with the parents were done in Spanish. Respondents who disclosed a situation of serious threat or ongoing victimization were re-contacted by a clinical member of the research team, trained in telephone crisis counseling, whose responsibility was to stay in contact with the respondent until the situation was appropriately addressed locally. All procedures were authorized by the Institutional Review Board of the University of New Hampshire.

Response Rates

The cooperation rate for the RDD cross-section portion of this survey was 71% and the response rate was 54%. The cooperation and response rates associated with the smaller over-sample were somewhat lower at 63% and 43%, respectively. These are good rates by current survey research standards (Babbie, 2007; Keeter, Kennedy, Dimock, Best, & Craighill, 2006), given the steady decline in response rates that have occurred over the last three decades (Atrostic, Bates, Burt, & Silberstein, 2001) and the particular marked drop in recent years (Curtin, Presser, & Singer, 2005; Keeter, et al., 2006; Singer, 2006). Although the potential for response bias remains an important consideration, several recent studies have shown no meaningful association between response rates and response bias (Curtin, Presser, & Singer, 2000; Groves, 2006; Keeter, Miller, Kohut, Groves, & Presser, 2000; Merkle & Edelman, 2002).

Victimization Measurement

The survey utilized an enhanced version of the Juvenile Victimization Questionnaire (JVQ), an inventory of childhood victimization (Finkelhor, Hamby, Ormrod, & Turner, 2005; Finkelhor, Ormrod, Turner, & Hamby, 2005a; Hamby, Finkelhor, Ormrod, & Turner, 2004). Indices of five types of family-perpetrated victimization were constructed using perpetrator descriptions associated with several types of victimization, including any emotional maltreatment (3 items; e.g. “At any time in your child’s life did your child get really scared or feel really bad because grown-ups in your child’s life called him/her names, saying mean things to him/her or said they didn’t want him/her?”), any physical or sexual maltreatment (10 items; e.g. “Not including a spanking on the bottom, at any time in your child’s life did a grown-up in your child’s life hit, beat, kick, or physically hurt your child in any way?”; “At any time in your child’s life, did a grown-up your child knows touch your child’s private parts when they

shouldn't have or make your child touch their private parts? Or did a grown-up your child knows force your child to have sex?"), any neglect (1 item; When someone is neglected it means that grown-ups didn't take care of them the way they should. They might not get them enough food, take them to the doctor when they are sick, or make sure they have a safe place to stay. At any time in your child's life, was your child neglected?"), any victimization by juvenile siblings (12 items; e.g. "At any time in your child's life did any kid, even a brother or sister, hit your child? Somewhere like at home, at school, out playing, or anywhere else?"), and any witnessing family violence (6 items; e.g. "At any time in your child's life did one of your child's parents get hit or slapped by another parent?" Note: counted only if child saw or heard the event). Respondents were also asked whether the event had occurred within the past year; for the current research, only past-year victimizations were counted.

Measurement of SSNRs

Safe, stable and nurturing relationships exist along a continuum from low to high or from absent to present. The following SSNR indices measure both the presence and absence of safe, stable and nurturing relationships in families. As such, these measures are a useful framework for exploring the complex web of family risk and promotive factors that affect child well-being.

Parenting Behavior. Different aspects of parenting behavior were assessed with items from the Parenting Styles and Dimensions Questionnaire (Robinson, Mandleco, Frost Olsen, & Hart, 2001). Specifically, caregivers completed 10 items from the "Warmth and Involvement" and 2 items from the "Verbal Hostility" components of the Authoritarian parenting scale.

Physical discipline and monitoring/supervision were assessed using a shortened version of the Alabama Parenting Questionnaire (Frick, 1991). Specifically, three items from the "corporal punishment" scale, three from the "inconsistent discipline" scale, and five items from the "poor

monitoring/supervision” scale were used. Four additional items were created and added to the monitoring/supervision dimension, resulting in a total of nine items for monitoring/supervision. Caregivers were asked how often they engaged in each behavior in the past year (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Usually).

Factor analyses of all SSNR parenting items revealed four distinct dimensions. Verbal hostility and inconsistent discipline loaded on the same dimension and were combined into a 5-item summary measure, **inconsistent and hostile parenting**. The alpha coefficient for this scale is .67. **Warmth and involvement** was also a summary measure, having an alpha coefficient of .70. Because the monitoring/supervision items did not show adequate reliability as a scale, they were made into a dichotomous index assessing the presence of **poor monitoring/supervision** (lowest 10% of the sample = 1). **Corporal punishment** was also constructed as a dichotomous measure; respondents were coded 1 on this variable if they “sometimes” or “usually” engaged in *any* form of physical punishment. Items used to construct the parenting behavior indices are presented in Appendix A.

Parent Conflict. A summary score of two items from the “conflict properties” sub-scale of Children’s Perceptions of Inter-Parental Conflict Measure (CPIC- Conflict) (Grych & Fincham, 1990) was used to assess parent verbal conflict. Specifically, parents indicated whether the statements “My child often sees his/her parents arguing” and “My child’s parents get really mad when they argue” were “very true”, “a little true”, or “not true”. Higher scores indicate greater conflict.

Parental Dysfunction: Two types of potential dysfunction were assessed. **Drug/alcohol problems** were assessed with the question: “Has there ever been a time that a member of your child’s family drank or used drugs so often that it caused problems?” Respondents were then

asked if the problems had occurred in the last year. In the present study, a dummy variable was constructed to indicate the presence of past year drug/alcohol problems. Respondent were also asked whether anyone in the child's family had ever been diagnosed by a doctor, therapist, or other professional with a psychological/behavioral disorder (a list was provided). A follow-up question asked which family members were diagnosed. Two dummy variables were constructed for the present analyses: **Mother diagnosed with psychological disorder** (1= yes; 0=no) and **Father diagnosed with psychological disorder** (1= yes; 0=no).

Family Adversity. Family stress was measured with a summary score of nine life events occurring in the past year. Items included events such as: child/family was in a very bad fire, flood, tornado, hurricane, earthquake or other disaster; mother, father, or guardian lost a job or couldn't find work; parents got divorced or separated; child/close family member had very bad illness where (child/family member) had to go to the hospital; and parent had to leave the country to fight in a war.

Residential Stability. Respondents were asked how many times the child had **moved** in the past year. A variable was constructed to represent the total number of past-year residential moves. To assess whether a child resided in **more than one household**, respondents were asked whether, in the past year, the child lived somewhere else besides the respondents' household (for example, with another parent, relative, or foster care). (1= yes; 0 = no)

Family Risk Index. A measure of cumulative family risk was constructed by counting the number of risk factors present (measures described above). For variables that were not dichotomous (i.e. inconsistent/hostile parenting, warmth/involvement, family adversity), the "risk factor" was counted if the respondent fell within the top 10% of the negative end of the dimension. Residential moves was counted if the child had moved 1 or more times in the last

year. Although there were eleven risk factors considered, scores were constructed to range from 0 to 7+ to reduce the skew at the high end of the risk index.

Measurement of Trauma Symptoms

A summary measure was constructed from 25 items of the depression, anxiety, anger, and dissociation components of the Trauma Symptom Checklist for Young Children (TSCYC). The instrument was designed to evaluate children's responses to unspecified traumatic events in different symptom domains. Respondents are asked to indicate how often their children had experienced each symptom within the last month. Response options are on a 4-point scale from 0 (not at all) to 4 (very often). The full measure has demonstrated good reliability and validity in both clinical and population-based samples (Briere, et al., 2001). In the current study, the measure has an alpha coefficient of .87.

Demographic Measures.

Information was obtained on the child's **gender** (male=1; female=0), **age** (in years), **race/ethnicity**: coded into 4 groups: white non-Hispanic (reference group), Black non-Hispanic, other race non-Hispanic, and Hispanic any race, and **socio-economic status** (SES). SES is a composite based on the sum of the standardized household income and standardized parental education (for the parent with the highest education) scores, which was then re-standardized. **Family structure**, defined by the composition of the household, was categorized into four groups: children living with: 1) two biological or adoptive parents (reference group), 2) one biological parent plus partner (spouse or non-spouse), 3) single biological parent, and 4) other caregiver.

Results

Intercorrelations among SSNR factors, victimization, and trauma symptoms

Table 1 presents means, standard deviations, and inter-correlations among all safety, stability, and nurture indicators, victimization variables, and trauma symptom scores.

Substantial covariance is evident, with most factors significantly related ($p < .01$) to most other factors in the expected direction. In other words, many of these risk factors and conditions appear to cluster within families. Below we highlight some of the strongest significant associations.

Alcohol/drug problems were related to several forms of family-perpetrated victimization, especially witnessing family violence ($r = .26$), and child neglect ($r = .26$). Inconsistent/hostile parenting was most strongly related to parent conflict ($r = .23$), poor supervision of children ($r = .22$), and victimization by siblings ($r = .20$). Children who had moved often in the last year were also more likely to share residence across different households ($r = .34$), and these types of residential instability were most highly related to child neglect ($r = .18$, $r = .21$). Emotional maltreatment was strongly related to witnessing family violence ($r = .27$) as well as other forms of maltreatment, including physical/sexual abuse ($r = .25$) and child neglect ($r = .25$).

We also wished to determine the extent to which our SSNR and victimization variables were related to the level of trauma symptoms that children exhibit. As seen in Table 1, trauma symptoms were significantly related to all study variables, except parental warmth/involvement. The strongest bivariate associations were found between trauma symptoms scores and inconsistent/hostile parenting ($r = .37$), emotional maltreatment ($r = .32$), witnessing family violence ($r = .28$), and parental conflict ($r = .28$).

Hierarchical regression of SSNRs and victimization on trauma symptoms

Having found inter-correlations among the SSNR variables and having established their bivariate associations with trauma symptoms, we then wished to determine the extent to which the SSNR and victimization indicators are *independently* related to children's symptoms levels and the relative strength of their effects. We also wished to determine whether family-perpetrated victimization mediated associations between the SSNR variables and symptom levels.

Table 2 presents a hierarchical regression analysis, assessing the independent and relative effects of SSNR factors and family perpetrated victimization on children's trauma symptoms, controlling for demographics. In Model 1, symptom level was regressed on all demographic and non-victimization SSNR factors. Older children, males, and those living in non-traditional family structures, (single parent, step-parent, and other relative/foster care families) exhibited significantly more symptoms than younger, female children and those living with two biological parents. Of the SSNR variables considered, mother and father disorder, drug/alcohol problems, inconsistent/hostile parenting, family adversity, number of residential moves, and parental conflict were all significantly associated with higher symptom levels, independent of demographic and other SSNR factors.

In model 2, family-perpetrated victimizations were added to the equation. Four of the five types of victimization were independently associated with trauma symptoms, including emotional maltreatment ($p < .001$), physical/sexual maltreatment ($p < .05$), witnessing family violence ($p < .001$), and sibling victimization ($p < .001$). Although age and family structure were no longer significant with victimization controlled, the greatest evidence of mediation appeared with respect to the parent dysfunction variables. The unstandardized coefficient for father

disorder was reduced by almost 50% and the coefficient for family drug/alcohol abuse was reduced by 65% when the different forms of family-perpetrated victimization were controlled; both coefficients were no longer significant. The coefficients for mother disorder and parent conflict were also reduced by over 40% but remained statistically significant. With all demographic, family, and victimization variables in the equation, two factors emerged as especially influential: inconsistent/hostile parenting (Beta = .27, $p < .001$) and emotional maltreatment (Beta = .22; $p < .001$). The full model explained 32.5% of the variance in children's symptoms levels.

The cumulative effects of family risk

Finally, although the above analyses demonstrate important independent effects of our SSNR and victimization variables, we also wished to determine the extent to which these factors may have cumulative effects on child mental health. To this end we constructed a "family risk index", representing the number of SSNR/victimization factors that were present or that fell into the high-risk end of scores. Ranging from zero to seven or more, the index value represents each respondent's cumulative risk on SSNR/victimization dimensions. The sample distribution was as follows: 14.4% had no risk factors ($n=290$), 29.2% had one risk factor ($n=589$), 24% scored two on the index ($n=483$), 14.3% scored three ($n=289$), 9.2% scored four ($n=185$), 4.3% scored five ($n=87$), 2.4% scored six on the cumulative risk index ($n=49$) and 2.2% had seven or more risk factors ($n=44$). As shown in Figure 1, there was a clear linear relationship between cumulative SSNR risk and level of trauma symptomatology, controlling for demographic factors. For the most part, trauma symptom scores become higher with each additional risk factor to which children are exposed. The difference in the mean adjusted trauma symptom score between the lowest and highest risk group is approximately 16 points.

Discussion

Factors and conditions that contribute to poor safety, stability, and nurturance within the family often co-occur to create a broad context of risk for children. Thus, risky family environments are characterized by multiple problems that arise from detrimental caregiver characteristics and behavior. Consistent with earlier research (Finkelhor, et al., 2007), we find that children are often exposed to multiple forms of victimization within the family, as evidenced by substantial inter-correlations across most forms of family-perpetrated victimization. Moreover, family victimization often occurs against a backdrop of parental dysfunction, family adversity, residential instability, and problematic parenting practices.

Although moderate correlations existed among most of the variables considered, some noteworthy patterns emerged. Parental dysfunction, as indexed by mother and father disorder and drug/alcohol abuse appear to be importantly related to all forms of family-perpetrated victimization, demonstrating a broad level of risk associated with these problems. These findings suggest the potential utility of identifying and targeting parents who have mental health and behavioral problems for maltreatment education and intervention. Inconsistent/hostile parenting, which (as discussed below) emerged as the strongest independent predictor of children's symptomatology, appears more common in households with high levels of parent conflict. Interestingly, it was this variable that showed the strongest association with sibling victimization, suggesting that anger and inconsistency when disciplining may encourage hostility and fighting among siblings and/or reduce parents' abilities to control children's behavior towards one another.

Consistent with some other research (Dubowitz & Black, 2001), residential instability appears especially relevant for exposure to child neglect in this sample. It seems likely that

frequent moves and transfers across households create a chaotic family context, reducing the ability of parents to monitor, arrange for, and respond to children's basic needs. The finding that family adversity is also significantly related to child neglect is consistent with this interpretation.

In bivariate analyses, almost all the SSNR factors considered in this study were significantly associated with child symptomatology. Many of these factors also had independent effects on mental health when all other factors and demographic differences were held constant, including mother disorder, inconsistent/hostile parenting, poor supervision, family adversity, number of residential moves, parental conflict, and all forms of victimization except neglect. Family perpetrated victimization substantially mediated associations between parent disorder, parent conflict, and drug/alcohol problems and child trauma symptoms, further highlighting the greater risk of family violence associated with parent dysfunction and the importance of such contexts for child symptomatology.

It is worth noting that two types of family-perpetrated victimization—victimization by siblings and witnessing family violence—categories not typically central in maltreatment research, both had significant effects on symptom levels, independent of all forms of maltreatment and the SSNR factors. These findings confirm the importance of a more comprehensive approach in assessing children's exposure to violence and victimization, even when considering only within-family exposures. Emotional maltreatment was the most powerful form of victimization assessed in these analyses. Although sometimes overlooked in maltreatment research and practice (Glaser, 2002), emotional abuse in childhood has also been found to have substantial effects on long-term mental health outcomes in adulthood, even more so than physical forms of maltreatment (Chapman, et al., 2004).

The variable that showed the strongest independent association with child symptomatology was the parenting variable of “inconsistent and hostile parenting”. The strong detrimental effects of this type of parenting behavior, together with the significance of emotional abuse, speak to the particular importance of the nurturance and stability domains of parent-child relationships. These findings are consistent with studies showing the detrimental effects of hostile and coercive parenting, especially when discipline is inconsistent and unfair, on the development of social competence and aggression in children (Dishion, 1990; Hart, Nelson, Robinson, Olsen, & McNeilly-Choque, 1998; Schwartz, Dodge, Pettit, & Bates, 1997). In contrast, when parents employ fair and consistent discipline— aspects of “authoritative parenting”— children’s well-being and social development are enhanced (Baumrind, 1989; Brenner & Fox, 1999; Maccoby, 1983; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). The particularly powerful effects of both hostile/inconsistent parenting and emotional maltreatment suggest that rejection, anger, and denigration directed at the child may be central to the most risky family contexts. Together with unpredictable parenting behavior, these hostile conditions may be particularly likely to generate fear and to damage self concept in young children. Children in such family environments may often grow to believe in and act out the negative attributions directed towards them (Glaser, 2002).

The current study also adds to the growing evidence that risk factors are often cumulative in their effects on child well-being. Studies that have taken a broader perspective have found that many children experience multiple risks (Masten & Coatsworth, 1998; Turner, Finkelhor, & Ormrod, 2005) and that the greater number of risk factors children possess, the higher the prevalence of developmental and mental health problems (Rutter, 1979; Sameroff, 2000). The current research also supports the “cumulative risk hypothesis”; even when considering only

family-related risk factors, a clear linear relationship between the level of trauma symptoms reported and the number of risky family qualities and conditions was evident. Thus, specific indices of family relationships and circumstances that denote lack of safety, stability, and nurturance appear to have cumulative effects on child wellbeing. Future research may benefit from an even broader approach that incorporates risk factors, as well as health enhancing resources, beyond the family context. Such research might consider how problematic neighborhood and school environments, as well as exposure to peer and community violence, combine with family characteristics to affect child well-being.

Most variables considered in this research reflect negative rather than positive sides of safety, stability, and nurturance. Although the current research cannot address this issue directly, it may be that child symptomatology is more strongly affected by conflictive interactions and adverse events and conditions, than by positive relationships and circumstances. That is, the absence of toxic family contexts (rather than the presence of constructive ones) may be most important in preventing distress. This interpretation is consistent with research showing that family risk factors and poor parenting qualities are most strongly related to child mental health problems, while family protective factors and positive parenting better predict positive child outcomes, like social and leadership skills (Frick, 1994; Prevatt, 2003; Shelton, Frick, & Wootton, 1996). Nevertheless, future research should examine this issue directly by considering more family conditions and relationship qualities that could have more “promotive” and/or “protective” effects (Centers for Disease Control & Prevention, 2009; Sameroff, 2006). Thus, in addition to examining contexts that create risk for children, it is important to identify factors that have direct positive effects on well-being and/or that foster resiliency in the context of risk.

Additional limitations of this research should be acknowledged. First, it is possible that families in which children are exposed to family-perpetrated victimization and/or who exhibit other risk factors, are reticent to fully disclose the nature of their behavior or are less likely to participate in community surveys. Although such under-reporting or under-representation of child victimization can introduce bias, similar survey-based studies have demonstrated considerable willingness of caregivers to report violent and maltreating acts perpetrated by themselves and other household caregivers (Straus & Hamby, 1997; Theodore, et al., 2005), and have provided evidence that caregivers do not underreport compared to other observers (Finkelhor, Hamby, et al., 2005). Second, reports of both victimization exposure and symptoms came from the same sources (caregivers), leading to a possibility of method covariance. Information from the same source can yield substantially higher correlations than information from different sources, for example parents and child protection professionals (McGee, Wolfe, Yuen, Wilson, & Carnachan, 1995).

Conclusion

This research highlights the importance of considering multiple sources of family-perpetrated victimization when assessing the impact of maltreatment on children and underscores the need to incorporate other aspects of family context in such investigations. Examining aspects of caregiver-child relationships and circumstances that reflect variations in safety, stability, and nurturance can provide a useful framework for exploring the complex web of family risk and promotive factors that affect child well-being. Different aspects of unsafe, unstable, and non-nurturing family environments have independent negative effects and are also cumulative in their consequences. The current study suggests that emotional abuse and inconsistent/hostile parenting are especially potent risk factors. Intervention efforts must pay attention to the quality

of verbal interaction between parents and attempt to reduce hostile and rejecting parenting, even in the absence of physical aggression.

References

- Acierno, R., Resnick, H., Kilpatrick, D. G., & Stark-Riemer, W. (2003). Assessing elder victimization - Demonstration of a methodology. *Social Psychiatry and Psychiatric Epidemiology*, 38(11), 644-653.
- Appleyard, K., Egeland, B., van Dulmen, M. H. M., & Sroufe, L. A. (2005). When more is not better: The role of cumulative risk in child behavior outcomes. *Journal of Child Psychology & Psychiatry*, 46(3), 235-245.
- Atrostic, B. K., Bates, N., Burt, G., & Silberstein, A. (2001). Nonresponse in U.S. government household surveys: consistent measures, recent trends, and new insights. *Journal of Official Statistics*, 17(2), 209-226.
- Babbie, E. (2007). *The practice of social research* (11th ed.). Belmont: CA: Wadsworth.
- Bajos, N., Spira, A., Ducot, B., & Messiah, A. (1992). Analysis of sexual behavior in France (ACSF): A comparison between two modes of investigation: Telephone survey and face-to-face survey. *AIDS*, 6(3), 315-323.
- Baumrind, D. (1989). Rearing competent children. In W. Damon (Ed.), *New directions in child development: Child development, today and tomorrow* (pp. 349-378). San Francisco, CA: Jossey-Bass.
- Belsky, J., & Cassidy, J. (1994). Attachment: Theory and evidence. In M. Rutter & D. F. Hay (Eds.), *Development through life: A handbook for clinicians* (pp. 373-402). Oxford, England: Blackwell.
- Bermack, E. (1989). Effects of telephone & face-to-face communication on rated extent of self-disclosure by female college students. *Psychological Reports*, 65(1), 259-267.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.

- Brenner, V., & Fox, F. A. (1999). An empirically derived classification of parenting practices. *Journal of Genetic Psychology, 160*, 343-356.
- Briere, J., Johnson, K., Bissada, A., Damon, L., Crouch, J., Gil, E., et al. (2001). The Trauma Symptom Checklist for Young Children (TSCYC): Reliability and association with abuse exposure in a multi-site study. *Child Abuse & Neglect, 25*, 1001-1014.
- Centers for Disease Control & Prevention (2009). *Preventing child maltreatment through the promotion of safe, stable, and nurturing relationships between children and caregivers*. Atlanta, Ga: Author.
- Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of Affective Disorders, 82*, 217-225.
- Cicchetti, D. (2004). An odyssey of discovery: Lessons learned through three decades of research on child maltreatment. *American Psychologist, 59*(8), 731-741.
- Cicchetti, D., Rogosch, F. A., & Toth, S. L. (1998). Maternal depressive disorder and contextual risk: Contributions to the development of attachment insecurity and behavior problems in toddlerhood. *Development & Psychopathology, 10*, 283-300.
- Cicchetti, D., & Toth, S. L. (1995). A developmental psychopathology perspective on child abuse and neglect. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*, 541-565.
- Clarke-Stewart, A., & Dunn, J. (2006). *Families count: Effects on child and adolescent development*. New York: Cambridge University Press.

- Conger, R. D., Wallace, L. E., Sun, Y., Simons, R. L., McLoyd, V. C., & Bordy, G. H. (2002). Economic pressure in African American families: A replication and extension of the family stress model. *Developmental Psychology, 38*, 179-193.
- Curtin, R., Presser, S., & Singer, E. (2000). The effects of response rate changes on the index of consumer sentiment. *Public Opinion Quarterly, 64*, 413-428.
- Curtin, R., Presser, S., & Singer, E. (2005). Changes in telephone survey nonresponse over the past quarter century. *Public Opinion Quarterly, 69*(1), 87-98.
- Czaja, R. (1987). Asking sensitive behavioral questions in telephone interviews. *International Quarterly of Community Health Education, 8*(1), 23-32.
- Dishion, T. J. (1990). The family ecology of boys peer relations in middle childhood. *Child Development, 61*, 874-891.
- Dong, M., Anda, R. F., Felitti, V. J., Dube, S. R., Williamson, D. F., Thompson, T., et al. (2004). The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction. *Child Abuse & Neglect, 28*(7), 771-784.
- Dubowitz, H., & Black, M. B. (2001). Child neglect. In R. M. Reece & S. Ludwig (Eds.), *Child abuse: Medical diagnosis and management* (2nd ed., pp. 339-362). Philadelphia, PA: Lippincott, Williams, & Wilkins.
- Felitti, V. J., Anda, R. F., & Nordenberg, D. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventative Medicine, 14*(4), 245-258.
- Finkelhor, D., Hamby, S. L., Ormrod, R. K., & Turner, H. A. (2005). The JVQ: Reliability, validity, and national norms. *Child Abuse & Neglect, 29*(4), 383-412.

- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007). Poly-victimization: A neglected component in child victimization trauma. *Child Abuse & Neglect, 31*, 7-26.
- Finkelhor, D., Ormrod, R. K., Turner, H. A., & Hamby, S. L. (2005a). Measuring poly-victimization using the JVQ. *Child Abuse & Neglect, 29*(11), 1297-1312.
- Finkelhor, D., Ormrod, R. K., Turner, H. A., & Hamby, S. L. (2005b). The victimization of children and youth: A comprehensive, national survey. *Child Maltreatment, 10*(1), 5-25.
- Finkelhor, D., Turner, H. A., Ormrod, R., & Hamby, S. L. (2009). Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics, 124*(5), 1-13.
- Frick, P. J. (1991). The Alabama Parenting Questionnaire. Unpublished rating scale. University of Alabama.
- Frick, P. J. (1994). Family dysfunction and the disruptive behavior disorders: A review of recent empirical findings. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology* (Vol. 17, pp. 203-226). New York: Plenum.
- Glaser, D. (2002). Child sexual abuse. In M. Rutter & E. Taylor (Eds.), *Child and Adolescent Psychiatry* (4 ed., pp. 340). Malden, MA: Blackwell Publishing Company.
- Goodman, S. H., & Gotlib, I. H. (2002). *Children of depressed parents: Mechanisms of risk and implications for treatment* Washington, DC: American Psychological Association.
- Groves, R. M. (2006). Nonresponse rates and nonresponse bias in household surveys. *Public Opinion Quarterly, 70*(5), 646-675.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive contextual framework. *Psychological Bulletin, 108*, 267-290.

- Hamby, S. L., Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2004). *The Juvenile Victimization Questionnaire (JVQ): Administration and Scoring Manual*. Durham, NH: Crimes against Children Research Center.
- Hart, C. H., Nelson, D. A., Robinson, C. C., Olsen, S. F., & McNeilly-Choque, M. K. (1998). Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages. *Developmental Psychology, 34*, 687-697.
- Harter, S. (2006). Self-processes and developmental psychopathology. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental Psychopathology: Vol. 1 Theory & Method* (2nd ed., pp. 370-418). Hoboken, NJ: John Wiley & Sons.
- Hennan, M. R., Dornbusch, S. M., Herron, M. C., & Herting, J. R. (1997). The influence of family regulation, connection, and psychological autonomy on six measures of adolescent functioning. *Journal of Adolescent Research, 12*, 34-67.
- Keeter, S., Kennedy, C., Dimock, M., Best, J., & Craighill, P. (2006). Gauging the impact of growing nonresponse on estimates from a national RDD telephone survey. *Public Opinion Quarterly, 70*(5), 759-779.
- Keeter, S., Miller, C., Kohut, A., Groves, R. M., & Presser, S. (2000). Consequences of reducing nonresponse in a national telephone survey. *Public Opinion Quarterly, 64*, 125-148.
- Kobak, R., Cassidy, J., Lyons-Ruth, K., & Ziv, Y. (2006). Attachment, stress, and psychopathology: A developmental pathways model. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental Psychopathology: Vol. 1 Theory & Method* (2nd ed., pp. 333-369). Hoboken, NJ: John Wiley & Sons.
- Lyons-Ruth, K., Lyubchik, A., Wolfe, R., & Bronfman, E. (2002). Parental depression and child attachment: Hostile and helpless profiles of parent and child behavior among families at

- risk. In S. H. Goodman & I. H. Gotlib (Eds.), *Children of depressed parents: Mechanisms of risk and implications for treatment* (pp. 89-120). Washington, DC: American Psychological Association.
- Maccoby, E. E. (1983). Social-emotional development and response to stressors. In N. Garmezy & M. Rutter (Eds.), *Stress, coping, and development in children* (pp. 217-234). New York: McGraw-Hill Book Company.
- Maccoby, E. E. (1984). Middle childhood in the context of the family. In Commission on Behavioral and Social Sciences and Education (Ed.), *Development during middle childhood: The years from six to twelve* (pp. 184-239). Washington, DC: The National Academies Press.
- Manly, J. T., Kim, J. E., Rogosch, F. A., & Cicchetti, D. (2001). Dimensions of child maltreatment and children's adjustment: Contributions of developmental timing and subtype. *Development & Psychopathology, 13*, 759-782.
- Marin, G., & Marin, B. (1989). A comparison of three interviewing approaches for studying sensitive topics with Hispanics. *Hispanic Journal of Behavioral Sciences, 11*(4), 330-340.
- Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53*, 205-220.
- McAuliffe, W. E., Geller, S., LaBrie, R., Paletz, S., & Fournier, E. (1998). Are telephone surveys suitable for studying substance abuse? Cost, administration, coverage and response rate issues. *Journal of Drug Issues, 28*(2), 455-481.

- McGee, R. A., Wolfe, D. A., Yuen, S. A., Wilson, S. K., & Carnachan, J. (1995). The measurement of maltreatment: A comparison of approaches. *Child Abuse & Neglect, 19*, 233-249.
- McLoyd, V. C. (1990). The impact of economic hardship on Black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61*, 311-346.
- Mercy, J. A., & Saul, J. (2009). Creating a healthier future through early interventions for children. *JAMA, 301*(21), 1-3.
- Merkle, D., & Edelman, M. (2002). Nonresponse in exit polls: A comprehensive analysis. In R. M. Groves, D. A. Dillman, J. L. Eltinge & R. J. A. Little (Eds.), *Survey nonresponse* (pp. 343-358). New York: Wiley.
- Mitchell, K. J., Finkelhor, D., & Wolak, J. (2005). The Internet and family and acquaintance sexual abuse. *Child Maltreatment, 10*(1), 49-60.
- National Scientific Council on the Developing Child (2005). Excessive stress disrupts the architecture of the developing brain. *Working Paper No. 3*. Retrieved from www.developingchild.net/reports.shtml
- Prevatt, F. F. (2003). The contribution of parenting practices in a risk and resiliency model of children's adjustment. *British Journal of Developmental Psychology, 21*, 469-480.
- Pruchno, R. A., & Hayden, J. M. (2000). Interview modality: Effects on costs and data quality in a sample of older women. *Journal of Aging and Health, 12*(1), 3-24.
- Repetti, R. L., Taylor, S. E., & Seeman, T. E. (2002). Risky families: Family social environments and the mental and physical health of offspring. *Psychological Bulletin, 128*(2), 330-266.

- Robinson, C. C., Mandleco, B., Frost Olsen, S., & Hart, C. H. (2001). The Parenting Styles and Dimensions Questionnaire (PSDQ). In B. F. Perlmutter, J. Touliatos & G. W. Holden (Eds.), *Handbook of family measurement techniques. Vol.2: Instruments and index* (pp. 190). Thousand Oaks, CA: Sage Publications.
- Roosa, M., Michaels, M., Groppenbacher, N., & Gersten, J. (1993). The validity of children's self-reports of family drinking problems. *Journal of Studies on Alcohol, 54*, 71-79.
- Runyan, D. K., Wattam, C., Ikeda, R., Hassan, F., & Ramiro, L. (2002). Child abuse and neglect by parents and other caregivers. In E. G. Krug, L. L. Dahlberg, J. A. Mercy, A. B. Zwi & R. Lozano (Eds.), *World report on violence and health* (pp. 57-86). Geneva: World Health Organization.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. W. Kent & J. E. Rolf (Eds.), *Primary prevention of psychopathology, Vol. 3: Social competence in children* (pp. 49-74). Hanover, NH: University of New England Press.
- Sameroff, A. J. (2000). Dialectical processes in developmental psychopathology. In A. J. Sameroff, M. Lewis & S. Miller (Eds.), *Handbook of developmental psychopathology* (pp. 2nd ed. 23-40). New York: Kluwer Academic/Plenum Publishers.
- Sameroff, A. J. (2006). Identifying risk and protective factors for healthy child development. In A. Clarke-Stewart & J. Dunn (Eds.), *Families count: Effects on child and adolescent development* (pp. 53-76). New York: Cambridge University Press.
- Schwartz, D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1997). The early socialization of aggressive victims of bullying. *Child Development, 68*(4), 565-575.
- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-aged children. *Journal of Clinical Child Psychology, 25*, 317-329.

- Shonkoff, J. P., Boyce, W. T., & McEwen, B. S. (2009). Neuroscience, molecular biology, and the childhood roots of health disparities: Building a new framework for health promotion and disease prevention. *JAMA*, *301*(21), 2252-2259.
- Sidebotham, P., & Heron, J. (2006). Child maltreatment in the "children of the nineties": A cohort study of risk factors. *Child Abuse & Neglect*, *30*, 497-522.
- Singer, E. (2006). Introduction: Nonresponse bias in household surveys. *Public Opinion Quarterly*, *70*(5), 637-645.
- Steinberg, L. D., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development*, *65*, 754-770.
- Straus, M. A., & Hamby, S. L. (1997). Measuring physical and psychological maltreatment of children with the Conflict Tactics Scales. In G. Kaufman Kantor & J. L. Jasinski (Eds.), *Out of the darkness: Contemporary perspectives on family violence* (pp. 119-135). Thousand Oaks, CA: Sage.
- Taylor, A. (2002). I'll call you back on my mobile: a critique of the telephone interview with adolescent boys. *Westminster Studies in Education*, *25*(1), 19-34.
- Theodore, A. D., Chang, J. J., Runyan, D. K., Hunter, W. M., Bangdiwala, S. I., & Agans, R. (2005). Epidemiologic features of the physical and sexual maltreatment of children in the Carolinas. *Pediatrics*, *115*(3), 331-337.
- Turner, H. A. (2010). Stress process applications in child victimization research. In W. R. Avison, C. Aneschensel, S. S. Schieman & B. Wheaton (Eds.), *Advances in the conceptualization of the stress process: Essays in honor of Leonard I. Pearlin* (pp. 207-228). New York: Springer.

- Turner, H. A., Finkelhor, D., & Ormrod, R. (2005). The effect of lifetime victimization in the mental health of children and adolescents. *Social Science & Medicine*, *62*, 13-27.
- Turner, H. A., Finkelhor, D., & Ormrod, R. K. (2006). The effect of lifetime victimization on the mental health of children and adolescents. *Social Science & Medicine*, *62*(1), 13-27.
- Weeks, M. F., Kulka, R. A., Lessler, J. T., & Whitmore, R. W. (1983). Personal versus telephone surveys from collecting household health data at the local level. *American Journal of Public Health*, *73*(12), 1389-1394.
- Wells, M., Finkelhor, D., Wolak, J., & Mitchell, K. J. (2004). Law enforcement challenges in Internet child pornography crimes. *Sex Offender Law Report*, *5*(4), 41-42, 49.
- Widom, C. S. (1998). Childhood victimization: Early adversity and subsequent psychopathology. In B. P. Dohrenwend (Ed.), *Adversity, stress, and psychopathology* (pp. 81-95). New York: Oxford University Press.

Table 1: Correlations among all SSNR, Victimization, and Trauma Symptom Variables

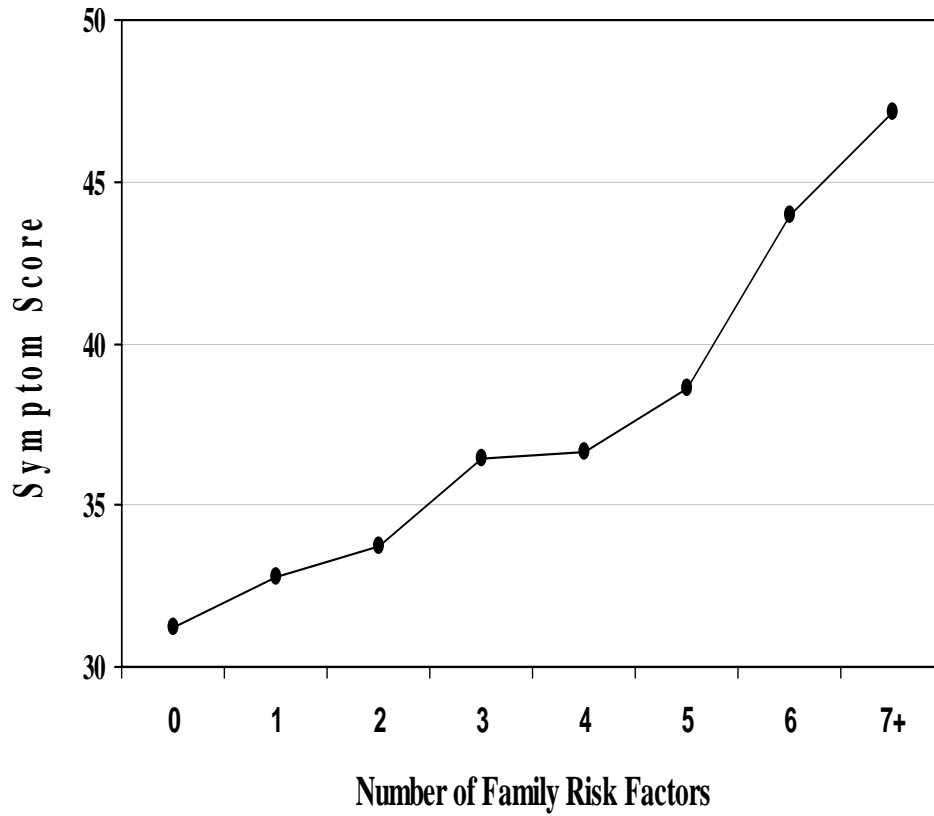
Measure	mthr disordr	fathr disordr	alco-drug	incns par	warmth	phys punish	poor suprv	adversity	moves PY	live other	par conflict	emot mal	phys mal	witn fam v	juv sib v	neglect
1 mother diagnosed w/disorder	1															
2 father diagnosed w/disorder	.208**	1														
3 fam alco-drug problem	.180**	.180**	1													
4 inconsistent/hostile parenting	.079**	.058**	.035	1												
5 warmth/involmtent	.034	.003	-.002	-.035	1											
6 any physical punishment	.012	-.025	.035	.129**	-.084**	1										
7 poor supervision	-.026	.001	.011	.219**	-.054*	-.041	1									
8 family adversity	.153**	.094**	.143**	.028	.018	.034	.029	1								
9 number of moves	.067**	.078**	.054*	-.037	-.101**	-.004	-.001	.138**	1							
10 lives in 2+ households	.061**	.048*	.136**	-.006	-.023	-.012	-.002	.076**	.337**	1						
11 parental conflict	.173**	.159**	.176**	.225**	.026	.061**	.075**	.123**	.053*	.111**	1					
12 any emotional maltreatment	.132**	.143**	.199**	.084**	.023	.001	.015	.093**	.033	.034	.154**	1				
13 any physical/sex maltreatment	.093**	.061**	.154**	.047	.003	.009	.000	.091**	.061**	.114**	.188**	.253**	1			
14 any witness family violence	.195**	.113**	.264**	.093**	.006	.053*	-.008	.112**	.112**	.157**	.325**	.267**	.267**	1		
15 any juv sibling victimization	.101**	.091**	.065**	.199**	.053*	-.014	.022	.019	-.046*	.039	.077**	.034	.034	.077**	1	
16 any neglect	.119**	.104**	.263**	-.038	.009	-.011	-.003	.155**	.181**	.205**	.100**	.253**	.253**	.258**	.015	1
17 trauma symptom score	.192**	.147**	.189**	.370**	-.040	.077**	.132**	.181**	.137**	.090**	.282**	.324**	.183**	.283***	.192**	.135**
Mean (s.d)	.13 (.33)	.08 (.27)	.06 (.23)	9.89 (2.86)	38.70 (2.11)	.32 (.47)	.16 (.36)	.53 (.80)	.24 (.55)	.05 (.23)	2.61 (.96)	.04 (.21)	.04 (.19)	.09 (.28)	.41 (.49)	.01 (.12)

*p < .05; **p < .01

Table 2: Independent Effects of SSNR and Victimization Factors on Child Trauma Symptom Scores

Predictor	Model 1				Model 2			
	b	se	Beta	<i>p</i>	b	se	Beta	<i>p</i>
CH age (yrs)	0.14	0.07	0.05	0.04	0.12	0.06	0.04	0.07
CH male	1.12	0.28	0.08	0.00	1.10	0.26	0.08	0.00
SES	0.00	0.19	0.00	0.99	-0.14	0.18	-0.02	0.42
CH black,non-Hisp	-0.75	0.43	-0.04	0.08	-0.48	0.40	-0.03	0.24
CH oth rac/eth or mixd	-0.46	0.59	-0.02	0.43	-0.04	0.56	0.00	0.95
CH hispanic,any race	-0.60	0.38	-0.03	0.12	-0.31	0.37	-0.02	0.40
oth adlt cg (incl foster)	1.40	0.71	0.04	0.05	0.75	0.69	0.02	0.28
single parent	0.89	0.40	0.05	0.02	0.57	0.38	0.03	0.13
par + step-par or partnr	1.38	0.64	0.05	0.03	1.13	0.61	0.04	0.06
mother diagnosed w/ disorder	1.52	0.44	0.07	0.00	0.88	0.42	0.04	0.04
father diagnosed w/ disorder	1.12	0.53	0.04	0.04	0.57	0.51	0.02	0.26
family alco-drug problem	2.59	0.65	0.09	0.00	0.92	0.63	0.03	0.15
incons/hostile parenting	0.72	0.05	0.30	0.00	0.65	0.05	0.27	0.00
warmth-involvement score	-0.07	0.07	-0.02	0.29	-0.07	0.07	-0.02	0.25
any physical punishment	0.35	0.31	0.02	0.26	0.36	0.29	0.02	0.21
poor supervision	0.72	0.42	0.04	0.08	0.96	0.40	0.05	0.02
family adversity	0.92	0.18	0.11	0.00	0.82	0.17	0.10	0.00
number moves	1.32	0.28	0.11	0.00	1.20	0.26	0.10	0.00
lives is 2+ households	-1.42	1.02	-0.03	0.16	-1.16	0.99	-0.03	0.24
parental conflict	1.05	0.16	0.15	0.00	0.63	0.15	0.09	0.00
any emotional maltreat					7.40	0.71	0.22	0.00
any physical maltreatment					1.76	0.74	0.05	0.02
any witness family violence					2.57	0.54	0.10	0.00
any juv sibling victimization					1.33	0.28	0.10	0.00
any neglect					-0.34	1.30	-0.01	0.79
Adjusted R²	0.247				0.325			

Figure 1 . Estimated Symptom Score by Number of Family Risk Factors



Note: analyses control for sex, age, race, family structure and SES

Appendix A – Parenting Measures & Source Questions

1. Inconsistent/Hostile Parenting.

- PI54. You lost control of your temper when your child misbehaved.
 - PI55. You felt that getting your child to obey you was a lot of trouble.
 - PI58. The punishment you gave your child depended on your mood.
 - PI59. You yelled or shouted when your child misbehaved.
 - PI63. You argued with your child.
- FOR ALL RESPONSES USE CODING OF:
- 1 Never
 - 2 Rarely
 - 3 Sometimes
 - 4 Usually

2. Supervision.

- PI72. Your child plays outside without being watched or checked on by an adult.
 - PI73. Your child takes a bath or shower without being watched or checked on by an adult.
 - PI74. Your child is left alone in a car while you go into a store, bank, or post office.
 - PI75. Your child uses public restrooms without a parent or other caregiver waiting nearby.
- FOR ALL RESPONSES USE CODING OF:
- 1 Never
 - 2 Rarely
 - 3 Sometimes
 - 4 Usually

3. Warmth and Involvement.

- PI42. You encouraged your child to talk about his/her troubles.
- PI43. You gave praise when your child was good.
- PI44. You joked and played with your child.
- PI45. You gave comfort and understanding when your child was upset.
- PI46. You responded to your child's feelings or needs.

- PI47. You told your child that you appreciate what he/she tried or accomplished.
- PI48. You were aware of problems or concerns about your child in school or daycare.
- PI49. You expressed affection by hugging or holding your child.
- PI50. You apologized to your child when making a mistake in parenting.
- PI51. You had warm and intimate times together with your child.

FOR ALL RESPONSES USE CODING OF:

- 1 Never
- 2 Rarely
- 3 Sometimes
- 4 Usually

4. Corporal Punishment.

- PI53. You spanked your child with your hand when he/she did something wrong.
- PI57. You slapped your child when he/she did something wrong.
- PI60. You hit your child with a belt, switch, or other object when he/she did something wrong.

FOR ALL RESPONSES USE CODING OF:

- 1 Never
- 2 Rarely
- 3 Sometimes
- 4 Usually

5. Family Adversity (past year).

Divorced in Past Year Item calculated from:

PI13. How old was your [CHILD'S AGE]-year-old when (he/she) stopped living with both (his/her) biological parents

PI14. What is your current marital status? Are you... ?

- Married
- Unmarried but living with a partner
- Separated
- Divorced
- Widowed
- Single (Never married)

- LE1. In (his/her) whole life, (was your child) ever in a VERY BAD fire, flood, tornado, hurricane, earthquake or other disaster? This would be a time that (your child's) home or apartment was damaged and (your child) might have had to live somewhere else for a while.
- LE2. (Was your child/) ever in a VERY BAD accident (at home, school, or in a car) where (your child) had to go to the hospital? This would be a time that (your child was) was very hurt and needed to spend a long time in the hospital. Has that ever happened?
- LE3. Did (your child) ever have a VERY BAD illness where (your child) had to go to the hospital? This could be a time when (your child was) so sick that (your child) had to be in the hospital a lot? Has that ever happened?
- LE4. Has someone (your child was) really close to ever had a VERY BAD accident where they had to spend a long time in the hospital? This would be someone important to (your child), like a parent, brother or sister, or best friend.
- LE5. Has someone (your child was) really close to ever had a VERY BAD illness where they had to be in the hospital a lot? Again, this would be someone important to (your child), like a parent, brother or sister, or best friend.
- LE8. Have there ever been any times when (your child's) mother, father, or guardian lost a job or couldn't find work?
- LE15. Did a parent or someone who takes care of (your child) ever have to leave the country to fight in a war, when he or she had to be away for several months or longer?
- LE16. Did (your child) ever have anyone close to (him/her) die because of an illness or an accident?

FOR ALL LE ITEMS USE CODING OF:

- 1 Yes
- 2 No

FOR ALL LE ITEMS ASK FOLLOW-UP QUESTION:

[If yes to LE XX]: Did this happen in the last year?

- 1 Yes
- 2 No

6. Parental Conflict.

CNF1. (My child) often sees (his/her) parents arguing.

CNF2. (My child's) parents get really mad when they argue.

FOR ALL RESPONSES USE CODING OF:

1. Very true
2. A little true
3. Not true