



Predicting resilience in sexually abused adolescents

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ABSTRACT

This research examined factors that predicted resilience in sexually abused adolescents. Using Bronfenbrenner's Process-Person-Context-Time (PPCT) ecological model, this study considered the proximal and distal factors that would contribute to adolescents' reactions to sexual victimization. This correlational study used hierarchical regression analysis ($n = 237$) with cross-sectional data from the National Survey of Child and Adolescent Well-Being Wave I (NSCAW, Dowd et al., 2002). This study found that school engagement, caregiver social support, hope and expectancy, caregiver education and SES predicted resilience. In line with the PPCT model, findings suggest that placing a greater emphasis on the contextual environment could improve support for adolescent resilience. Augmenting interventions that focus on individual change with those that address environmental factors may increase the benefits to adolescents affected by sexual abuse.

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The body of literature that focuses on childhood sexual abuse consistently reports as many as half of the children who experience sexual trauma will not display symptoms of psychopathology often associated with the abuse (DuMont, Widom, & Czaja, 2007; Finkelhor & Berliner, 1995; Hecht & Hansen, 2001; McClure, Chavez, Agars, Peacock, & Matosian, 2008). At present, the field has no dominant empirically supported model of explanation. The most common reasons thought to account for asymptomatic survivors of sexual trauma include: insufficient severity of abuse, the symptoms were not detected by practitioners, development of avoidant coping styles that mask victims' distress (sleepier effects) or that asymptomatic survivors may be more resilient than the survivors who show symptoms (Finkelhor & Berliner, 1995; Kendall-Tackett, Williams, & Finkelhor, 1993; Putnam, 2003).

Resilience can be generally defined as the capacity to cope with life's setbacks and challenges (Moen & Erickson, 1995). For more than 50 years researchers have grappled with the deceptively simple task of determining why some individuals who are faced with great emotional, physical, and environmental adversities cope, survive, and thrive and other individuals facing similar adversities struggle with often expected negative outcomes (Goldstein & Brooks, 2005). Clinical researchers have operationally defined a resilient child using two types of criteria (1) the absence of clinical or diagnosable levels of psychological symptoms (as did in this current study) and (2) adequate mastery of certain stage-salient developmental tasks (Goldstein & Brooks, 2005; Kaplan, 2005).

Beyond defining resilience, there are several methodological challenges that researchers face when studying resilience. One challenge is the issue of measurement. Researchers have measured resilience using a variety of instruments and constructs (Ahern, Kiehl, Sole, & Byers, 2006). Daigneault, Hebert, and Tourigny (2007) argued that many researchers have relied on using multiple source of evaluation to capture the elusive concept of resilience. In general terms, resilience is usually measured by showing mastery or competence in one or more critical areas of life functioning. Several studies have used standardized measures of resilience (Daigneault et al., 2007; Simpson, 2010) while other have used proxy measures such

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as several measurements that represent constructs of high life functioning (Bogar & Hulse-Killacky, 2006; Tarakeshwar, Hansen, Kochman, Fox, & Sikkema, 2006).

Resiliency research that specifically focuses on maltreated children explores the processes, moderators, and mechanisms that facilitate positive adaptation and can provide a guide for the development of targeted interventions focused on attenuating the detrimental effects of maltreatment (Houshyar & Kaufman, 2005). While there is a considerable amount of literature that suggests that specific personal traits or skills influence adolescent response to stressful or traumatic life experiences and the development of psychopathological symptoms (Chaplin & Cole, 2005; Dodge, Coie, & Lynam, 2006; Eisenberg et al., 2009); most of the resiliency studies focus on children and adults. This current study will focus specifically on adolescence and discuss how the PPCT model provides a framework for an integrated model that accounts for resilience in sexual abused adolescents.

Ecological theory

Bronfenbrenner's (1979) Ecological Theory provides a conceptual framework for understanding the dynamics between multiple systems. He described the influence of the social embeddedness of the individual on social trajectories and developmental paths. Bronfenbrenner reformulated his original model to attend to a bio-ecological approach to the study of lives (Moen & Erickson, 1995). This model attended to the interplay of four components: (1) the interactions of proximal environment often called proximal processes, (2) the characteristics of the individual, (3) the social context of the person, and (4) the change over time. The Process-Person-Context-Time (PPCT) model permits the analysis of variations in developmental process and outcomes as a joint function of the characteristics of the environment and of the person. To provide context for this study, we will discuss the characteristics of the PPCT model and will review the resilience research in terms of the PPCT model.

Proximal environment

According to Bronfenbrenner (1995) proximal environment or proximal processes are defined as the interactions of the individual with persons, objects, and symbols in the immediate environment; he termed those proximal processes as the "engines of development." Proximal process characteristics are defined in the model before individual or personal characteristics because according to Bronfenbrenner the influence of the individual characteristics is primarily indirect, operating through the impact of the proximal processes. This implies that when proximal processes are weak, individual based potentials for effective functioning remain relatively unrealized however, they become actualized to a progressively greater extent as proximal processes increase in magnitude (Bronfenbrenner & Ceci, 1994).

In the resilience literature, one clear example of a proximal process variable is the quality of relationship with a caregiver. The quality of relationship with a caregiver is considered one of the most influential predictors of post-abuse adjustment for children of all ages including adolescents. Houshyar and Kaufman (2005) highlighted that the presence of a supportive and stable caregiver has been identified as one of the most important factors that distinguish abused individuals with good developmental outcomes from those with more deleterious outcomes. Werner (2000) found that affectional ties that encourage trust, autonomy and initiative provided by stable caregivers were a common characteristic among resilient children.

Other examples of proximal process variables in resilience literature include various forms of mentoring. The influence of support systems including caring neighbors, teachers, and mentors that reinforce and reward competencies such as caring neighbors, teachers, mentors, and peer friends have been consistently associated with resilience. Mentoring is especially relevant during adolescence as the effort to separate from parent figures intensifies (Walsh, 1996; Werner, 2000).

Family and social support can also be considered as proximal process variables that are consistently emphasized in the literature as protective factors in children's outcome after sexual trauma (Bal, Van Oost, De Bourdeaudhuij, & Crombez, 2004; Chandler-Ray & Jackson, 1997; Conte & Schuerman, 1987; Edmond, Auslander, Elze, & Bowland, 2006; Faust, Runyan, & Kenny, 1995; Hecht & Hansen, 2001; Lee, Bellamy, & Guterman, 2009; Mannarino & Cohen, 1996; McClure et al., 2008). The role of the family, including caregiver support and distress, particularly maternal support and distress, have been established as strong predictors of post abuse adjustment (Deblinger, Hathaway, Lippman, & Steer, 1993; Heriot, 1996; Kendall-Tackett et al., 1993; Kinard, 1996; Lee et al., 2009; Leifer, Shapiro, & Kassem, 1993; Mannarino & Cohen, 1996). Other studies that include family related variables such as family cohesion, adaptability, family environment, and overall functioning have not produced as consistent results (Bal et al., 2004; Edwards, Holden, Felitti, & Anda, 2003; Faust et al., 1995; Mannarino & Cohen, 1996; Meyerson, Long, Miranda, & Marx, 2002).

School engagement can be seen as a proximal process variable in adolescence because school is arguably one of the most important environments for adolescents. Active engagement in learning and the school environment by a young person is considered as a protective factor within a developmental asset framework (Sesma, Mannes, & Scales, 2005). Engagement with school activities develops a sense of involvement and participation that help provide a meaning for life and a reason for caring (Werner & Smith, 1992). Engagement activities that are not directly related to school work such as extracurricular activities have been found to provide protective value to at-risk children (Mahoney, 2000).

Person characteristics

Bronfenbrenner (1995) reported that human beings vary widely in bio-psychological characteristics and are differentially susceptible to the external conditions and forces that they are exposed to during their lifetime. The bio-ecological approach to personal characteristics makes a distinction between two types of characteristics that are relevant in shaping development: resource or liability characteristics and developmentally instigative characteristics often called force characteristics (Bronfenbrenner, 1993). Resource and liability characteristics are measures of ability, achievement, temperament, and personality. The developmentally instigative (force) characteristics reflect the conception of the individual as “an active agent in and on, its environment” (Bronfenbrenner, 1995, p. 634). These characteristics are manifested by an inclination to set in motion, sustain, and enhance interaction between the individual and their environment. Force characteristics are expressed through differential interests, values, belief systems, and goals in relation to the environment and in relation to self. Bronfenbrenner referred to these models as “force-resource models” (p. 635). He stated that any model that neglected both assessments of the force-resource models “treats the developing person as devoid of either psychological substance or psychological force” (p. 635).

There have been numerous examples of force-resource variables associated with resilience in the literature. Werner (2000) reported that a prototype for a resilient child is a child who engages with others, who has good communication and problem solving skills, has the ability to recruit help, and faith that their own actions can make a positive difference in their lives. Personal characteristics that have been associated with resilience include intelligence, sense of optimism, high self-regard, attributional styles, cognitive functioning, self-perception, locus of control, social competence, and coping styles (Bal, Van Oost, De Bourdeaudhuij, & Crombez, 2003; Bogar & Hulse-Killacky, 2006; Daigneault et al., 2007; Eisold, 2005; Feiring, Taska, & Lewis, 2002; Kim, Cicchetti, Rogosch, & Manly, 2009; Mannarino & Cohen, 1996; Shapiro, Leifer, Martone, & Kassem, 1992).

Positive self-worth or high self-esteem has traditionally been associated with resilience in children (Masten, 2001). Sesma et al. (2005) reported that a positive view of their personal future along with self-esteem was a protective factor in at risk-children particularly in adolescents. Social competence and personality maturity have also been identified as personal characteristics that are associated with resilience in adolescents (Conrad & Hammen, 1993; Westenberg & Block, 1993).

Contextual environment

Bronfenbrenner (1995) described the contextual environment as a set of nested structures in four successively encompassing levels ranging from micro to macro. Steinberg, Darling, and Fletcher (1995) argued that examination of context was essential in studying processes and development from an ecological perspective. According to an ecological perspective, no processes occur outside of a context. Contextual environments can include proximal variables, such as family and contextual variables, to distal variables like community variables, policies, worldviews, cultural contexts, and abuse experiences. The family and community variables that are studied as contextual variables differ from the family and community (i.e., parental social support and school engagement) variables that are studied as proximal process variables in that the contextual variables are describing the environments that the parents live in relatively separate from the children (Bronfenbrenner, 1986). Werner (2000) reported that there are distinctive protective factors within family and community contexts that are associated with positive outcomes throughout a child's development. Family contextual factors such as mother's education have been associated with positive adaptation in children. Community factors that are influential throughout most of a child's developmental stages include: city environments and the availabilities of community facilities (Bronfenbrenner, 1986). Werner pointed out that while most theorists agree that resilience is governed by a dynamic interaction of protective factors within individual, family and larger social contexts; there is a paucity of studies that empirically support multiple protective factors within larger social contexts.

However, recently there have been several studies that highlighted the impact of macro contexts on resilience. Bogar and Hulse-Killacky (2006) found that “life circumstances” such as poverty influenced resiliency. Kia-Keating, Grossman, Sorsoli, and Epstein (2005) found that the ability to deconstruct negative gender stereotypes was associated with resilience in male survivors of childhood sexual abuse. Ungar et al. (2007) examined the impact of cultural tensions such as social justice and cultural adherence on resilience in adolescents. They found that resilient youth were more likely to be able to navigate these cultural tensions.

Abuse related variables (i.e., type of sexual activity, frequency and duration of the abuse, level of force or violence used during the abuse) are one of the most frequently studied contextual variables in the sexual abuse literature. Abuse related variables define the context of the actual abuse incident. These types of variables have been widely studied in the literature. These studies have focused on the impact of the specific details of the abuse incidents. However, abuse related variables have not been found to be reliable predictors of negative sequelae of sexual traumatization (Edmond et al., 2006; Feiring et al., 2002; Hazzard, Celano, Gould, Lawry, & Webb, 1995). Chaffin, Wherry, and Dykman (1997) postulated that only a modest amount of outcome variability among either children or adults appeared to be attributable to direct characteristics of the abuse incidents themselves.

Time

Bronfenbrenner (1995) discussed the issue of time in terms of a life vantage point. He reported that a major factor influencing the course and outcomes of human development is the timing of transitions. Putnam (2003) reported that more than 20% of victims of sexual abuse would report deterioration in daily functioning behaviors over time. Likewise, Kendall-Tackett et al. (1993) reported that children who have been sexually abused tend to continue or escalate in destructive behaviors if they are not treated. The current study examined how the passage of time influences post abuse adjustment.

Essentially, the core findings of the literature support the use of an ecologically sensitive contextual model for resilience in sexually abused adolescents. For example, Werner (2000) identified low distress, sociability, internal locus of control, maternal competence, a close bond with a primary caregiver, supportive grandparent caregivers, and supportive siblings as protective factors correlated with child maltreatment. Garmezy, Masten, and Tellegen (1984) described three sets of factors that act as protective mechanisms in maltreated children: personality features, family cohesion, and the availability of external support systems. Freeman and Morris (2001) reviewed the conceptual models that explain the psychological effects of childhood sexual abuse. They discussed the absence of a “comprehensive” model for understanding reaction to childhood sexual abuse and argued that the existing models in the literature focus on fragmented pieces that make up the complex and interactive system of reactions to sexual abuse.

Relying on the PPCT model as a theoretical framework, the purpose of this current study was to empirically examine a contextual model that predicted resilience in sexually abused adolescents. This model was designed to encompass the full contextual scope that the PPCT model and the resilience literature points to as key for predicting, analyzing, and fostering resilience. We hypothesized that lower levels of clinical symptoms in sexually abused adolescents would be associated with closer proximal relationships, positive personal characteristics, safe and nurturing contextual environments, and an increase of passage of time since the abuse. Additionally we expected, according to the PPCT model, that the proximal process characteristics would have the greatest influence on the psychological symptoms.

Methods

This secondary analysis used archived data from the National Survey of Child and Adolescent Well-Being Wave I data set (NSCAW, Dowd et al., 2002). The current study was a cross-sectional design focusing on the data collected in the first wave. The NSCAW supplies a representative sample of children and their caregivers and describes child and family characteristics and well-being outcomes with the purpose of relating those outcomes to children's involvement with the child welfare system (US Department of Health and Human Services, n.d.). The NSCAW data set has been widely used in recent studies that focused on abused children (e.g., Barth, Wildfire, & Green, 2006; Crozier & Barth, 2005; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004). The NSCAW sample was designed to over-sample subgroups of special interest, such as infants and sexually abused children (Dowd et al., 2002) to allow sufficient sample sizes for independent analyses.

The NSCAW sample was selected using a two-stage stratified sample design. The first stage consisted of dividing the United States into nine sampling strata and the second stage involved division based on the area's child protective services agency. The sample was drawn from cases investigated/assessed by local child protective services (CPS) agencies, and included both opened and closed cases. It included both children who were in in-home and out-of-home care. The sample was selected from children and families who entered the child welfare system within a 15-month period (October 1999–December 2000).

The sample size for the total data set was 5,504 children who were in “in home” placements (ages 0–16) from 97 child welfare agencies nationwide. For this study, the sample was then filtered to the 688 children who were identified as sexually abused. Finally, the sample was filtered to only include adolescents ages 11–16. The final sample size for this study was 237.

Sample demographics

The majority of the sample ($n = 237$) was female (80%). The ages of the participants ranged from 11 to 16 (40% ages 11–12; 52% ages 13–14 and 8% 15–16 years old). One-quarter of the youth were African American, 47% Caucasian, 20% Hispanic, and 8% other. Roughly half of the caregivers of the adolescents in the study (49%) had a high school diploma, 26% had not earned a high school diploma, 10% had an associate's degree, 6% had an undergraduate degree, and 9% had a graduate or professional degree. Fifty-one percent of the caregivers reported to be in the “low” SES category, 32% reported to be in the “middle” SES category, and 16% reported to be in the “high” SES category. As we previously stated this sample is comprised of children and families in “in home” placements, therefore all of the caregivers were either birth or adoptive parents.

One of the challenges in the current investigation was to create the best contextual model possible while working within the constraints of secondary analysis and the variables used in the original study. We “constructed” a contextual model based on the PPCT theory using what variables or measures were available in the original data set. The variables are presented in the framework of the PPCT theory as follows: Proximal process variables: caregiver perception of social support, quality of peer relationships of the child victim, quality of relationship with the caregiver, level of school engagement; Person variables: sex of the child, a sense of hope or expectancy (force variable), intelligence (resource variable); Context: race of the child, prior abuse history, relationship of the perpetrator to the child, type of sexual activity (fondling, oral sex, masturbation, digital, anal or oral penetration, etc.), disruptions in living environment, level of safety and community violence, size of the

community, number of caregivers available to the child, socioeconomic status of the family, caregiver's educational level; Time: time since the abuse.

Measures

Proximal process variable measures

Caregiver support. The caregiver perception of social support was measured using adapted items from The Duke-University of North Carolina Functional Social Support Questionnaire (Broadhead, Gehlbach, de Gruy, & Kaplan, 1988) and the Sarason Social Support Questionnaire-3 (Sarason, Levin, Basham, & Sarason, 1983; Sarason, Sarason, Shearin, & Pierce, 1987). The Duke-University of North Carolina Functional Social Support Questionnaire consists of 2 scales confidant and affective support. This measure has acceptable 2-week test–retest reliability ($r = .66$) and demonstrated construct and concurrent validity. In the 7 Likert scale items selected for this current study, caregivers were asked how satisfied they were with the current support that they receive (i.e., How satisfied are you with the amount of help and support you get with taking care of your children?). In the current study, this measure obtained an overall alpha coefficient of .948. The scores ranged from 5 to 30, the mean was 16.73, and the standard deviation was 7.91.

Peer relationships. Selected items from the Loneliness and Social Dissatisfaction Questionnaire for Young Children measured quality of peer relationships (Asher, Hymel, & Renshaw, 1984). This 17-item Likert scale instrument was designed to assess peer relationships and level of social adjustment. The internal consistency has been reported to be .90 and internal reliability ranges from .83 to .91. Children were asked to rate their peer experiences in school (i.e., I have lots of friends at school). In this current investigation this scale obtained an alpha coefficient of .983. Scores ranged from 1 to 8, the mean was 4.06 and the standard deviation was 1.45.

Relationship with the caregiver. Close relationship with the caregiver was measured by using selected items from the relationships with caregivers and caregiver section from the National Longitudinal Study of Adolescent Health (ADD Health, Bearman, Jones, & Udry, 1997). This section of the survey has been used to measure youth attachment with caregivers and or primary caregivers. In the present study, the scale obtained an alpha coefficient of .803. The adolescents were asked 10 questions to estimate the time that they spent performing activities with the caregivers (i.e., In the past 4 weeks have you gone shopping with your caregiver?). Scores ranged from 0 to 10, the mean was 4.94 and the standard deviation was 2.28.

School engagement. School engagement was measured by the Drug Free Schools outcome study questions from the Drug Free Schools and Communities Act of 1986. These questions were formatted to report the student's disposition towards school and learning. This 11-item scale obtained an alpha coefficient of .903 in this present study (i.e., How often do you hate being in school?). Scores ranged from 15 to 45, the mean was 32.45 and the standard deviation was 5.77.

Person variable measures

Level of hope or expectancy (force variable). Hope and expectancy was measured by 5 items from the expectations about education and life span section from the National Longitudinal Study of Adolescent Health Survey (ADD Health, Bearman et al., 1997). The expectations section is one of the most widely used sections of the ADD Health data set. The alpha coefficient for this measure is .701. The Likert scale questions were formatted to report the adolescents' views concerning expectations of the future (i.e., what do you think are the chances you will live to be at least 35?). The scores ranged from 0 to 5, the mean was 2.61, and the standard deviation was .68.

Intelligence (Resource Variable). The Kaufman Brief Intelligence Tests (Kaufman & Kaufman, 1990) was used to assess intelligence. This measure consists of an assessment of vocabulary and matrices. The internal consistency for the IQ composite is .94 (Miller, 1995). Concurrent validity was established by analysis with the Wechsler Intelligence Scale for Children-IV (Wechsler, 2003). The raw scores from the vocabulary, definitions and matrices sections will be compiled for a total score. The mean for this sample was 78.80 with a standard deviation of 12.30.

Contextual variable measures

Variables involving the nature of the abuse including: prior abuse history, type of sexual activity, and role of the perpetrator was measured through questions from the risk assessment and alleged abuse section of the investigative caseworker instrument. These questions were developed to gather information about the specific nature of the abuse and factors determining case decisions. The caseworkers responded to the questions "Was there a prior incident of substantiated abuse or neglect?" "Who was reported to be responsible for the sexual abuse?" and "What types of sexual abuse was reported?" Disruptions in family environment were measured during the caregiver interview. Respondents were asked "Have there been any changes in the child's living situation?"

Level of safety and community violence. The level of safety and community violence was measured by 5 adapted questions from the Philadelphia Family Management Study Caregiver Interview Schedule (Furstenburg, 1990). This instrument has an internal consistency of .974 in this current investigation. These Likert scale questions were formatted to measure the caregivers' assessment of the level of safety in their neighborhood by asking "how big of a problem" are community safety issues (i.e., drugs, gangs, etc.). The scores ranged from 5 to 15, the mean was 13.38, and the standard deviation was 2.31.

Time

The current study estimated the time since the abuse by using the report of the date of the investigation in the caseworker interview and the user guide information regarding the dates of sample collection.

Resilience

We defined resilience as the absence of psychological symptoms. Rather than examining resilience in terms of categories (i.e., resilient vs. non-resilient) we focused on the amount of symptomology observed in the adolescents as measured by the Child Behavior Checklist (CBCL, Achenbach, 1991). We operationalized "psychological symptoms" as overall behavioral difficulties and general distress symptoms. The raw score from the CBCL, Achenbach (1991) was used to assess the victims' level of maladaptive functioning. This widely used 140-item Likert scale instrument provides standardized descriptions of competencies, adaptive functioning and behavioral problems based on caregiver observations. Mean test–retest reliability ranged from .88 to .90 for 8 to 16 day intervals. Criterion-related validity for the CBCL is based on multiple regression analyses and indicates that 2–33% of the variance on individual scales is accounted for by referral status (Flanagan, 2005). In the current sample, internal consistency ranged from .55 to .90 for competence and adaptive scales, from .71 to .97 for the DSM-Oriented scales (American Psychiatric Association [DSM, IV-TR], 2000). The current sample had a mean of 61.42 and a standard deviation of 11.91 this is consistent with the normative mean of 58 and standard deviation of 10 (Achenbach, 1991).

Analysis

Hierarchical Regression was used to test the hypotheses in the study because it allowed choice about the order of entry of the variables based on the theoretical considerations. Specifically this analysis allowed us to observe the unique contribution of the "block" of variables by examining the change in the R^2 values (ΔR^2). The blocks were arranged according to the PPCT model and assessed in terms of what each block added to the equation at its point of entry in order to discover an equation with the most influential predictor variables. The blocks were: Block 1—proximal process variables (caregiver perception of social support, quality of peer relationships of the child victim, quality of relationship with the caregiver, level of school engagement); Block 2—person variables (sex of the child, a sense of hope or expectancy, intelligence); Block 3—context variables (race of the child, prior abuse history, relationship of the perpetrator to the child), extent of abuse (fondling, oral sex, masturbation, digital, anal or oral penetration, etc.), disruptions in living environment, level of safety and community violence, size of the community, number of caregivers available to the child, socioeconomic status of the family, caregiver's educational level); Block 4—time: time since the abuse.

Results

Hierarchical regression was used to determine which variables in the PPCT model significantly predicted general distress and behavior problems in sexually abused adolescents. SPSS REGRESSION and EXPLORE was used to evaluate assumptions of regression. The data were examined to determine if they satisfied the assumptions of regression: normality, homoscedasticity, linearity, and reliability of measures. The continuous variables were screened for normality through the assessment of the skewness and kurtosis of the variables.

Square root transformations and log transformation were not successful in correcting for the skewness and kurtosis for the caregiver perception of social support and community safety scales (Tabachnick & Fidell, 2001). The caregiver perception of support scale was recoded into an ordinal scale in an attempt to obtain a normal distribution within this variable. Cases with a score of 7 were recoded as "1" (unsatisfied with social support), cases with scores 10–22 were recoded as "2" ("somewhat satisfied with social support"), and cases with scores of 23–28 were recoded as "3" (satisfied with social support). The community safety scale was categorized into three groups: "safe," "somewhat safe," and "not safe." Cases with scores 5–8 were recoded as "not safe," scores 9–12 were recoded as "somewhat safe," and scores 13–15 were recoded as "safe." The re-coded categories for caregiver perception of social support and community safety were created by grouping the scores that surrounded the "peaks" in the distribution for each variable. These recoded scales then yielded normally distributed histogram plots. The Mahalanobis distance was used to assess for outliers. With $p < .001$ as criterion for the Mahalanobis distance, no outliers among the cases were detected, $N = 237$.

The correlations between the variables ranged from .01 to .70. Tables 1–3 displays the unstandardized regression coefficients (B) and intercept, the standardized regression coefficients (β), and R , R^2 , and change in R^2 after entry of all blocks of variables. R was significantly different from zero at the end of the first 3 blocks of variables. After the fourth block was

Table 1

Summary of hierarchical regression analysis for variables predicting general behavior problems – proximal process variables (Block 1).

Variable	<i>B</i>	<i>SE B</i>	β
School engagement	–.55*	.15	–.26
Peer relationship	–.23	.62	–.02
Relationship with the caregiver	–.018	.33	–.003
Social support 1 ^a	–3.49*	.952	–.235
Social Support 2	–3.08	.951	–.428

Block 1: ΔR^2 .15.^a Social support dummy coded variables: Social Support 1 = satisfied vs. somewhat satisfied; Social Support 2 = satisfied vs. unsatisfied.* $p < .05$.**Table 2**

Summary of hierarchical regression analysis for variables predicting general behavior problems – person variables (Block 2).

Variable	<i>B</i>	<i>SE B</i>	β
Intelligence	–.07	.06	–.07
Hope	–2.8*	1.18	–.16
Sex	–.74	1.19	–.02

Block 2: ΔR^2 .03.* $p < .05$.**Table 3**

Summary of hierarchical regression analysis for variables predicting general behavior problems – context (Block 2).

Variable	<i>B</i>	<i>SE B</i>	β
Race 1 ^a	–1.0	1.98	–.03
Race 2	–.87	2.1	–.03
Race 3	4.3	2.9	.09
Prior abuse	3.4*	1.5	.14
Parent ed. 1 ^b	–4.9*	1.9	–.17
Parent ed. 2	.08	2.72	.02
Parent ed. 3	1.2	3.29	.02
Parent ed. 4	2.16	3.82	.04
Sexual Activity 1 ^c	2.70	3.29	.054
Sexual Activity 2	3.25	2.85	.076
Sexual Activity 3	–2.93	3.82	–.050
Sexual Activity 4	1.33	1.78	.053
Perpetrator 1 ^d	12.37	7.06	.117
Perpetrator 2	3.11	8.35	.024
Perpetrator 3	–4.26	2.48	–.133
Perpetrator 4	2.40	8.33	.019
Perpetrator 5	–3.03	6.80	–.029
Perpetrator 6	5.84	4.50	.089
Perpetrator 7	3.65	3.19	.086
Perpetrator 8	3.09	2.81	.085
Perpetrator 9	3.94	2.27	.146
Perpetrator 10	3.39	5.47	.041
Perpetrator 11	–1.53	3.43	–.032
Perpetrator 12	–5.37	6.80	–.051
Number of caregivers	.258	1.63	.011
Community Safe 1 ^e	1.27	2.77	.030
Community Safe 2	2.90	2.12	.088
Disruption in livings	–.296	2.17	–.010
SES 1 ^f	3.29*	1.77	.129
SES 2	2.26	2.44	.069
Community size	1.28	1.58	.059

Block 3: ΔR^2 .16.^a Race dummy coded variables: Race 1 = Black vs. White; Race 2 = Hispanic vs. White; Race 3 = other vs. White.^b Parent education dummy coded variables: Parent ed. 1 = less than high school vs. high school; Parent ed. 2 = associate's degree vs. high school; Parent ed. 3 = bachelor's degree vs. high school; Parent ed. 4 = graduate vs. high school.^c Sexual activity dummy coded variable: Sexual Activity 1 = masturbation vs. fondling; Sexual Activity 2 = digital penetration vs. fondling; Sexual Activity 3 = oral sex vs. fondling; Sexual Activity 4 = intercourse vs. fondling.^d Perpetrator dummy coded variable: Perpetrator 1 = mother vs. father; Perpetrator 2 = stepmother vs. father; Perpetrator 3 = stepfather vs. father; Perpetrator 4 = grandfather vs. father; Perpetrator 5 = aunt vs. father; Perpetrator 6 = uncle vs. father; Perpetrator 7 = brother vs. father; Perpetrator 8 = mother's boyfriend vs. father; Perpetrator 9 = other relative vs. father; Perpetrator 10 = neighbor vs. father; Perpetrator 11 = friend vs. father; Perpetrator 12 = stranger vs. father.^e Community safety dummy coded variable: Community Safe 1 = somewhat safe vs. not safe; Community Safe 2 = safe vs. not safe.^f Socioeconomic status dummy coded variable: SES 1 = middle vs. low; SES 2 = high vs. low.* $p < .05$.

Table 4

Summary of hierarchical regression analysis for variables predicting general behavior problems – time (Block 4).

Variable	B	SE B	β
Age	.97	.63	.10

Block 4: ΔR^2 .00.

entered, with all of the variables in the equation, $R^2 = .34$, $F(5, 190) = 948.86$, $p = .623$. The adjusted R^2 value of the model was .32 (see Table 4).

After the first block, with the proximal process variables in the equation, $R^2 = .15$, $F(4, 190) = 9.91$, $p < .001$. After Block 2, with the person variables added to the equation, $R^2 = .18$, $F(4, 190) = 2.30$, $p = .04$. After Block 3 with the context variables added to the equation, $R^2 = .34$, $F(23, 190) = 1.44$, $p = .05$. After Block 4, with time since the abuse added to the prediction equation, $R^2 = .34$, $F(1, 190) = 2.11$, $p = .623$. The addition of time since the abuse did not provide a statistically significant improvement to R^2 . This pattern of results suggests that over a third of the variability in general distress symptoms for sexually abused adolescents is predicted by the proximal process variables (caregiver perception of support for the caregiver, quality of peer relationships of the child victim, quality of relationship with the caregiver, and level of school engagement); the person variables (sex of the child, a sense of hope or expectancy, and intelligence); and the context variables (race of the child, prior abuse history, and relationship of the perpetrator to the child), type of sexual activity (fondling, oral sex, masturbation, digital, anal or oral penetration, etc.), disruptions in living environment, level of safety and community violence, size of the community, number of caregivers available to the child, socioeconomic status of the family, caregiver's educational level). Specifically, the proximal process variables: caregiver perception of social support, school engagement, the personal level variable hope and expectancy and the contextual variables: caregiver education, SES, and prior abuse history were significant in this model.

Discussion

The purpose of this study was to empirically examine a contextual model that predicted resilience in sexually abused adolescents. We hypothesized that lower levels of clinical symptoms in sexually abused adolescents would be associated with closer proximal relationships, positive personal characteristics, safe and nurturing contextual environments, and an increased time since the abuse. Additionally we expected that, according to the PPCT model that the proximal process variables would have the greatest influence on the psychological symptoms, therefore the proximal process variables would have the largest contribution to the prediction equation.

The primary hypothesis was generally supported. Proximal process, person, and context variables all contributed significantly to the variance in general behavior problems of the victims of adolescent sexual abuse. The “time” variable, time since the abuse, was not significant in the model. Specifically we found that those individuals who reported lower levels of school engagement, lower levels of caregiver social support, lower levels of hope and expectancy, with caregivers that had less than a high school diploma, low SES, and a prior history of abuse had a higher level of general behavioral problems or were more likely to be “less resilient.” Our secondary hypotheses was not supported. The context variables contributed more to the prediction equation than the proximal process variables.

The results of this study are consistent with several studies that argue the use of a contextual framework that is sensitive to developmental perspectives to understand resilience (DuMont et al., 2007; Sesma et al., 2005). The results of the current study generally support the concept of specific variables having more predictive weight than others (Deblinger et al., 1993; Edmond et al., 2006; Heriot, 1996; Kim et al., 2009). There is still, however, inconsistency in identifying those variables. Caregiver relationship, for example, has been found to a buffer against stress (Werner, 2000); however, quality of caregiver relationship was not found to be significant in the current study. This unexpected finding could be a result of measurement error. It is plausible that the caregiver relationship instrument was not sensitive enough to accurately describe caregiver–adolescent relationships. Another plausible explanation is that the instrument accurately described the adolescent and caregiver relationship and the findings are illustrative of the developmental processes of adolescents' to desire separation from adult caregivers.

Abuse related variables have often been inconsistent in predicting post abuse adjustment (Feiring et al., 2002; Hazzard et al., 1995). They were not significant in the current study. However, another contextual variable, prior abuse history was significant in the current study. Although the database does not specifically address complex trauma, given that multiple trauma experiences may suggest the existence of complex trauma (Courtois & Ford, 2009), this finding may imply that examination of that phenomenon may have a greater predictive ability than the investigation of a single trauma event.

Although there were some marked differences in the results of the current study with previous findings in the literature, the results of the current investigation also supported some conclusions discussed in recent literature. School engagement was found to be a significant in the current model. School engagement as associated with resilience has been the focus of research in the educational literature. Lippman and Rivers' (2008) research suggested that resilience among vulnerable youths can be built with after-school programs. The research of Holt, Bry, and Johnson (2008) suggested that mentoring could improve resilience and Wiggan (2008) supported increased involvement of teachers.

Caregiver social support has been found to be a significant predictor of post abuse adjustment in this study and in the recent literature (Deblinger et al., 1993; Heriot, 1996; Kendall-Tackett et al., 1993; Kinard, 1996; Lee et al., 2009; Leifer et al., 1993; Mannarino & Cohen, 1996). Likewise, a sense hope or expectancy was found to be significantly associated with resilience in the current study and widely accepted in current literature (Bogar & Hulse-Killacky, 2006; Daigneault et al., 2007; Eisold, 2005). The current study found that characteristics related to socioeconomic advantages (caregiver education and low socioeconomic status) were significantly related to resilience. This is consistent with much of the resilience literature (Bogar & Hulse-Killacky, 2006; Masten, 2001; Werner, 2000).

The findings in the current study support the value of using the PPCT model in understanding resilience in sexually abused adolescents. Disparate pieces of research provide bits of evidence that support the utility of the PPCT model as a means of understanding the phenomenon of resilience among child sexual abuse survivors. However, by examining proximal and distal variables simultaneously a closer approximation of the complexity of human existence can be used to clarify the confusion arising from differential outcomes among victims of child sexual abuse. The findings of the current study emphasize the importance of an ecosystemically sensitive approach to assessment and treatment for sexually abused adolescents. These results signify the need for researchers and practitioners to recognize and actively acknowledge the ability of influential systems to serve as mechanisms for resilience in sexually abused adolescents and accommodate that need through their interventions.

Limitations

The study had several limitations that must be carefully considered. This study only focused on one criteria of resilience, a lack of psychological symptoms, and it was measured by only one measure (albeit a sound one). Therefore adolescents that were “resilient” in this study may have pronounced difficulties in other areas of functioning that are not measured by the Child Behavior Checklist. Also, the CBCL only provides details from the caregiver’s perspective. Triangulation through the use of additional measures from varying sources would improve the utility of the findings. It has been noted that resilience is better examined by using a longitudinal study design (Goldstein & Brooks, 2005); this study relied on a cross-sectional design and both the predictor and outcome instruments (e.g., CBCL, KBIT) measured selected symptoms at one point in time. There is the possibility that some of the symptoms may have pre-dated the collection of data. An additional limitation of the study was the use of existing measures in the original data set as proxies to represent variables needed for the current study (relationship with the caregiver and peer relationships). Although this method (proxy measurement) is commonly used in secondary data analysis, it increases the possibility of measurement error.

Conclusions

The results of this study suggest that efforts to strengthen the primary (proximal) relationships of an adolescent have the potential to improve post-abuse behavioral outcomes. Services such as community involvement activities where social interactions are built-in should be considered an integral part of a comprehensive sexual abuse treatment model. Research documents high rates of early attrition in sexual abuse therapy for children and adolescents (Marx, 2004). Clinicians very rarely will have the opportunity to work with the client until all symptoms are abated (Werba, Eyberg, Boggs, & Algina, 2006). More often, clinicians need to decide which intervention will have the greatest influence on symptoms in the shortest amount of time. The results of the current investigation imply that a focus on primary relationships (i.e., school engagement, caregiver social support, etc.) or a treatment plan that includes family case management services to address caregiver education or economic assistance will give the “biggest bang for a therapeutic buck.”

Despite the limitations, this study does provide useful results that can be used in further investigation of resilience. The results imply that the systems in which a sexually abused adolescent is embedded may serve as a buffer or protective factor to mitigate the effects of the abuse without professional therapeutic intervention. Specifically, the results imply that, just because individuals are sexually abused, they do not necessarily suffer from traumatic stress or need professional therapeutic assistance to bounce back to premorbid functioning. Trauma, in and of itself, is an expectable human experience, and humans are built to bounce back. Certain circumstances support that “bounce-back” reaction. These results signify the need for practitioners to adequately assess sexual trauma victims, develop sensitivity to eco-systemic influences in the lives of their clients, and recognize the ability of influential systems (e.g., teachers) to serve as mechanisms for resilience.

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References

- Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991*.
- Ahern, N. R., Kiehl, E. M., Sole, M., & Byers, J. (2006). A review of instruments measuring resilience. *Issues in Comprehensive Pediatric Nursing*, 29(2), 103–125.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders text revision* (4th ed.). Washington, DC: Author.
- Asher, S., Hymel, S., & Renshaw, P. (1984). Loneliness in children. *Child Development*, 55, 1456–1464.
- Bal, S., Van Oost, P., De Bourdeaudhuij, I., & Crombez, G. (2003). Avoidant coping as a mediator between self-reported sexual abuse and stress-related symptoms in adolescents. *Child Abuse & Neglect*, 27, 883–897.
- Bal, S., Van Oost, P., De Bourdeaudhuij, I., & Crombez, G. (2004). Differences in trauma symptoms and family functioning in intra- and extra-familial sexually abused adolescents. *Journal of Interpersonal Violence*, 19, 108–123.
- Barth, R., Wildfire, J., & Green, R. (2006). Placement into foster care and the interplay of urbanicity, child behavior problems, and poverty. *American Journal of Orthopsychiatry*, 76(3), 358–366.
- Bearman, P., Jones, J., & Udry, R. (1997). *The national longitudinal study on adolescent health: Research design*. Chapel Hill, NC: Carolina Population Center.
- Bogar, C., & Hulse-Killackey, D. (2006). Resiliency determinants and resiliency processes among female adult survivors of childhood sexual abuse. *Journal of Counseling & Development*, 84(3), 318–327.
- Broadhead, W. E., Gehlbach, S. H., de Gruy, F. V., & Kaplan, B. H. (1988). The Duke-UNC functional social support questionnaire: Measurement of social support in family medicine patients. *Medical Care*, 26, 709–723.
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist*, 34, 844–850.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research Perspectives. *Developmental Psychology*, 22, 723–742.
- Bronfenbrenner, U. (1993). The ecology of cognitive development: Research models and fugitive findings. In R. Wozniak, & K. Fischer (Eds.), *Development in context: Acting and thinking in specific environments* (pp. 3–44). Hillsdale, NJ: Erlbaum.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen, G. Elder, & K. Luscher (Eds.), *Examining lives in context: Perspectives of the ecology of human development* (pp. 619–647). Washington, DC: American Psychological Association.
- Bronfenbrenner, U., & Ceci, S. (1994). Nature–nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, 101, 568–586.
- Chaffin, M., Wherry, J., & Dykman, R. (1997). School age children's coping with sexual abuse: Abuse stresses and symptoms associated with four coping strategies. *Child Abuse & Neglect*, 21, 227–240.
- Chandler-Ray, K., & Jackson, J. (1997). Family environment and childhood sexual victimization: A test of the buffering hypothesis. *Journal of Interpersonal Violence*, 12, 3–17.
- Chaplin, T. M., & Cole, P. M. (2005). The role of emotion regulation in the development of psychopathology. In B. L. Hankin, & J. R. Z. Abela (Eds.), *Development of psychopathology: A vulnerability-stress perspective* (pp. 49–74). Thousand Oaks, CA: Sage.
- Conrad, M., & Hammen, C. (1993). Protective and resilience factors in high and low risk children: A comparison of children of unipolar, bipolar, medically ill, and normal mothers. *Development and Psychopathology*, 5, 593–607.
- Conte, J., & Schuerman, J. (1987). Factors associated with an increased impact of child sexual abuse. *Child Abuse & Neglect*, 11, 201–211.
- Courtois, C., & Ford, J. (Eds.). (2009). *Treating complex traumatic stress disorders: An evidence-based guide*. New York, NY: Guilford Press.
- Crozier, J., & Barth, R. (2005). Cognitive and academic functioning in maltreated children. *Children & Schools*, 27(4), 197–206.
- Deblinger, E., Hathaway, C., Lippmann, J., & Steer, R. (1993). Psychosocial characteristics and correlates of symptom distress in nonoffending mothers of sexually abused children. *Journal of Interpersonal Violence*, 8, 155–168.
- Daigneault, I., Hebert, M., & Tourigny, M. (2007). Personal and interpersonal characteristics related to resilient developmental pathways of sexually abused adolescents. *Child and Adolescent Psychiatric Clinics of North America*, 16, 415–434.
- Dodge, K. A., Coie, J. D., & Lynam, D. (2006). Aggression and antisocial behavior in youth. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Social, emotional, and personality development* (6th ed., pp. 719–788). New York, NY: Wiley.
- Dowd, K., Kinsey, S., Wheelless, S., Thissen, R., Richardson, J., Mierzwa, F., & Biemer, P. (2002). *National survey of child and adolescent well-being: National Data Archive on Child Abuse and Neglect (NDACN) Dataset Number 111: Introduction to the wave 1 general and restricted use releases*. Ithaca, NY: Author.
- Drug Free Schools and Communities Act (1986). 20 U.S.C. § 3211.
- DuMont, K., Widom, C., & Czaja, S. (2007). Predictors of resilience in abused and neglected children grown-up: The role of individual and neighborhood characteristics. *Child Abuse & Neglect*, 31(3), 255–274.
- Edmond, T., Auslander, W., Elze, D., & Bowland, S. (2006). Signs of resilience in sexually abused adolescent girls in the foster care system. *Journal of Child Sexual Abuse*, 15(1), 1–28.
- Edwards, V., Holden, G., Felitti, V., & Anda, R. (2003). Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: Results from the Adverse Childhood Experiences study. *The American Journal of Psychiatry*, 160(8), 1453–1460.
- Eisenberg, N., Valiente, C., Spinrad, T., Cumberland, A., Liew, J., Reiser, M., Zhou, Q., & Losoya, S. (2009). Longitudinal relations of children's effortful control, impulsivity, and negative emotionality to their externalizing, internalizing, and co-occurring behavior problems. *Developmental Psychology*, 45, 988–1008.
- Eisold, B. (2005). Notes on lifelong resilience. Perceptual and personality factors implicit in the creation of a particular adaptive style. *Psychoanalytic Psychology*, 22(3), 411–425.
- Faust, J., Runyon, M., & Kenny, M. (1995). Family variables associated with the onset and impact of intrafamilial childhood sexual abuse. The impact of the family on child adjustment and psychopathology. *Clinical Psychology Review Special Issue*, 15, 443–456.
- Feiring, C., Taska, L., & Lewis, M. (2002). Adjustment following sexual abuse discovery: The role of shame and attributional style. *Developmental Psychology*, 38, 79–92.
- Finkelhor, D., & Berliner, L. (1995). Research on the treatment of sexually abused children: A review and recommendations. *Journal of the Adolescent Psychiatry*, 34, 408–1423.
- Flanagan, R. (2005). Review of the child behavior checklist. In R. Spies, & B. Plake (Eds.), *The sixteenth mental measurements yearbook* (pp. 8–16). Lincoln, NE: Buros Institute of Mental Measurements.
- Freeman, K., & Morris, T. (2001). A review of conceptual models explaining the effects of child sexual abuse. *Aggression and Violent Behavior*, 6, 357–373.
- Furstenburg, F. (1990). *Philadelphia Family Management Study: Caregiver interview schedule*. Philadelphia, PA/Boulder, CO: Population Studies Center, University of Pennsylvania/Institute of Behavioral Science, University of Colorado.
- Garmezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development*, 55, 97–111.
- Goldstein, S., & Brooks, R. (2005). Why study resilience? In S. Goldstein, & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 3–16). New York, NY: Kluwer Academic/Plenum Publishers.
- Hazzard, A., Celano, M., Gould, J., Lawry, S., & Webb, C. (1995). Predicting symptomatology and self-blame among child sex abuse victims. *Child Abuse & Neglect*, 19, 707–714.
- Hecht, D., & Hansen, D. (2001). The environment of child maltreatment: Contextual factors and the development of psychopathology. *Aggression and Violent Behavior*, 6, 433–457.
- Heriot, J. (1996). Maternal protectiveness following the disclosure of intrafamilial child sexual abuse. *Journal of Interpersonal Violence*, 11, 181–194.
- Holt, L., Bry, B., & Johnson, V. (2008). Enhancing school engagement in at-risk, urban minority adolescents through a school-based, adult mentoring intervention. *Child & Family Behavior Therapy*, 30(4), 297.

- Houshyar, S., & Kaufman, J. (2005). Resiliency in maltreated children. In S. Goldstein, & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 181–200). New York, NY: Kluwer Academic/Plenum Publishers.
- Kaplan, H. (2005). Understanding the concept of resilience. In S. Goldstein, & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 39–48). New York, NY: Kluwer Academic/Plenum Publishers.
- Kaufman, A., & Kaufman, N. (1990). *Kaufman brief intelligence test*. Minnesota: American Guidance Service, Inc.
- Kendall-Tackett, K., Williams, L., & Finkelhor, D. (1993). Impact of sexual abuse among children: A review and synthesis of recent empirical studies. *Psychological Bulletin*, 113, 164–180.
- Kia-Keating, M., Grossman, F., Sorsoli, L., & Epstein, M. (2005). Containing and resisting masculinity: Narratives of renegotiation among resilient male survivors of childhood sexual abuse. *Psychology of Men & Masculinity*, 6(3), 169–185.
- Kim, J., Cicchetti, D., Rogosch, F., & Manly, J. (2009). Child maltreatment and trajectories of personality and behavioral functioning: Implications for the development of personality disorder. *Development and Psychopathology*, 21(3), 889–912.
- Kinard, E. (1996). Social support, competence, and depression in mothers of abused children. *American Journal of Orthopsychiatry*, 66, 449–462.
- Lee, S., Bellamy, J., & Guterman, N. (2009). Fathers, physical child abuse, and neglect: Advancing the knowledge base. *Child Maltreatment*, 14(3), 227–231.
- Leifer, M., Shapiro, J., & Kassem, L. (1993). The impact of maternal history and behavior upon foster placement and adjustment in sexually abused girls. *Child Abuse & Neglect*, 17, 755–766.
- Leslie, L., Hurlburt, M., Landsverk, J., Barth, R., & Slymen, D. (2004). Outpatient mental health services for children in foster care: A national perspective. *Child Abuse & Neglect*, 28, 697–712.
- Lippman, L., & Rivers, A. (2008). assessing school engagement: A guide for out-of-school time program practitioners. Research-to-results brief. Publication #2008-39. *Child Trends*. Retrieved from ERIC database.
- Mahoney, J. (2000). School extracurricular activity participation as a moderator in the development of anti-social patterns. *Child Development*, 71, 502–516.
- Mannarino, A., & Cohen, J. (1996). Family-related variables and psychological symptom formation in sexually abused girls. *Child Abuse & Neglect*, 19, 105–120.
- Marx, T. (2004). *Attrition from childhood sexual abuse treatment as a function of gender, ethnicity, and caregiver stress*. (Doctoral dissertation, ProQuest Information & Learning). Dissertation Abstracts International: Section B: The Sciences and Engineering, 65(6), 3200.
- Masten, A. S. (2001). Ordinary magic: Resilience process in development. *American Psychologist*, 56(3), 227–238.
- McClure, F., Chavez, H., Agars, M., Peacock, M., & Matosian, A. (2008). Resilience in sexually abused women: Risk and protective factors. *Journal of Family Violence*, 23(2), 81–88.
- Meyerson, L., Long, P., Miranda, R., & Marx, B. (2002). The influence of childhood sexual abuse, physical abuse, family environment and gender on the psychological adjustment of adolescents. *Child Abuse & Neglect*, 26, 387–405.
- Miller, M. (1995). Review of the Kaufman brief intelligence test. In J. Conoley, & J. Impara (Eds.), *The twelfth mental measurements yearbook*. Lincoln, NE: Buros Institute of Mental Measurements.
- Moen, P., & Erickson, M. (1995). Linked lives: A transgenerational approach to resilience. In P. Moen, G. Elder, & K. Lüscher (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 169–210). Washington, DC: American Psychological Association.
- Putnam, F. (2003). Ten-year research update review: Child sexual abuse. *Journal of the American Academy of Child & Adolescent Psychiatry*, 42, 269–278.
- Sarason, I., Levine, H., Basham, R., & Sarason, B. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology*, 44(1), 127–139.
- Sarason, I., Sarason, B., Shearin, E., & Pierce, G. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships*, 4, 497–510.
- Sesma, A. J., Mannes, M., & Scales, P. (2005). Positive adaptation, resilience, and the developmental asset framework. In S. Goldstein, & R. Brooks (Eds.), *Handbook of resilience in children* (pp. 281–296). New York, NY: Kluwer Academic/Plenum Publishers.
- Shapiro, J., Leifer, M., Martone, M., & Kassem, L. (1992). Cognitive functioning and social competence as predictors of maladjustment in sexually abused girls. *Journal of Interpersonal Violence*, 7, 156–164.
- Simpson, C. L. (2010). Resilience in women sexually abused as children. *Families in Society*, 91(3), 241–247.
- Steinberg, L., Darling, N., & Fletcher, A. (1995). Authoritative parenting and adolescent adjustment: An ecological journey. In P. Moen, G. Elder, & K. Lüscher (Eds.), *Examining Lives in context: Perspectives of the ecology of human development* (pp. 423–466). Washington, DC: American Psychological Association.
- Tabachnick, B., & Fidell, L. (2001). *Using multivariate statistics* (4th ed.). Boston, MA: Allyn and Bacon.
- Tarakeshwar, N., Hansen, N. B., Kochman, A., Fox, A., & Sikkema, K. J. (2006). Resiliency among individuals with childhood sexual abuse and HIV: Perspectives on addressing sexual trauma. *Journal of Traumatic Stress*, 19(4), 449–460.
- Ungar, M., Brown, M., Liebenberg, L., Othman, R., Kwong, W., Armstrong, M., & Gilgun, J. (2007). Unique pathways to resilience across cultures. *Adolescence*, 42(166), 287–310.
- US Department of Health and Human Services Administration for Children and Families (n.d.). *National Survey of Child and Adolescent Well-Being (NSCAW) Overview*. Retrieved from http://www.acf.hhs.gov/programs/opre/abuse_neglect/nscaw/nscaw_overview.html#overview
- Walsh, F. (1996). The concept of family resilience: Crisis and challenge. *Family Process*, 35, 261–281.
- Wechsler, D. (2003). *Wechsler Intelligence Scale for Children-IV*. Texas: Harcourt Assessment, Inc.
- Werba, B. E., Eyberg, S. M., Boggs, S. R., & Algina, J. (2006). Predicting outcome in caregiver-child interaction therapy: Success and attrition. *Behavior Modification*, 30, 618–646.
- Werner, E. (2000). Protective factors and individual resilience. In J. Shonkoff, & S. Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 115–132). New York, NY: Cambridge University Press.
- Westenberg, P. M., & Block, J. (1993). Ego development and individual differences in personality. *Journal of Personality and Social Psychology*, 65(4), 792–800.
- Werner, E., & Smith, R. (1992). *Overcoming the odds: High-risk children from birth to adulthood*. Ithaca, NY, USA: Cornell University Press.
- Wiggin, G. (2008). From opposition to engagement: Lessons from high achieving African American students. *The Urban Review*, 40(4), 317–349.