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Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence (IPV)☆

Sandra A. Graham-Bermann[a,*], Gabrielle Gruber[a], Kathryn H. Howell[a], Laura Girz[b]

[a] University of Michigan, Department of Psychology, 530 Church Street Avenue, Ann Arbor, MI 48109-1109, United States
[b] University of Toronto, Department of Psychology, 27 Kings College Circle, Toronto, Ontario M5S 1A1, Canada

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ABSTRACT

Objective: To evaluate the social and emotional adjustment of 219 children in families with varying levels of intimate partner violence (IPV) using a model of risk and protection. To explore factors that differentiate children with poor adjustment from those with resilience.
Methodology: Mothers who experienced IPV in the past year and their children ages 6–12 were interviewed. Standardized measures assessed family violence, parenting, family functioning, maternal mental health, and children's adjustment and beliefs.
Results: Using cluster analysis, all cases with valid data on the Child Behavior Checklist, Child Depression Inventory, General Self-Worth and Social Self-Competence measures were described by four profiles of children's adjustment: Severe Adjustment Problems (24%); children who were Struggling (45%); those with Depression Only (11%); and Resilient (20%) with high competence and low adjustment problems. Multinomial logistic regression analyses showed children in the Severe Problems cluster witnessed more family violence and had mothers higher in depression and trauma symptoms than other children. Resilient and Struggling children had mothers with better parenting, more family strengths and no past violent partner. Parents of children with Severe Problems were lacking these attributes. The Depressed profile children witnessed less violence but had greater fears and worries about mother's safety.
Conclusion: Factors related to the child, to the mother and to the family distinguish different profiles of adjustment for children exposed to IPV who are living in the community. Resilient children have less violence exposure, fewer fears and worries, and mothers with better mental health and parenting skills, suggesting avenues for intervention with this population.
Practice implications: Findings suggest that child adjustment is largely influenced by parent functioning. Thus, services should be targeted at both the child and the parent. Clinical interventions shaped to the unique needs of the child might also be tested with this population.

Studies of the effects of intimate partner violence (IPV) on children have focused primarily on individual deleterious outcomes, such as behavioral problems, low self-esteem, depression and anxiety, gender and family paradigms or post-traumatic stress disorder (Bogat, DeJonghe, Levendosky, Davidson, & von Eye, 2006; Graham-Bermann et al., 2008; Grych,

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* Corresponding author.

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Wachsmuth-Schlaefer, & Klockow, 2002; Osofsky, 2003; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). However, resilience, generally defined as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best, & Garmezy, 1990, p. 426), has yet to be thoroughly examined in children exposed to IPV. Research on children exposed to other forms of adversity, such as abuse and neglect, shows that, despite these experiences, some children exhibit competent functioning and positive adjustment (Haskett, Nears, Ward, & McPherson, 2006; Jaffee, Caspi, Moffitt, Polo-Tomas, & Taylor, 2007). Given that not all children cope with distressing events in the same way, it is likely that some children exposed to IPV can be considered resilient.

Exposure to family violence may fall under the broader category of emotional child abuse; defined as the repeated attack of a child or youth by an adult that negatively affects the child or youth's self-worth (Trocme & Wolfe, 2001). One form of emotional abuse, known as terrorizing, is most directly related to witnessing family violence. This form of abuse may cause a child to be terrified by the constant use of threats or intimidating behavior. This can include observing violence, hearing violence, or knowing that violence is taking place in the home. Children who have to cope with these forms of emotional abuse can develop feelings of inadequacy, powerlessness, and helplessness (Graham-Bermann, 2002; Wekerle & Wolfe, 2003).

Research supports the connection between emotional abuse and IPV, noting that 52% of children and youth whose histories of emotional child abuse included witnessing violence developed posttraumatic stress disorder (Famularo, Fenton, & Kinscherff, 1993). Reviews of studies of child psychopathology in children exposed to IPV also indicate that approximately 40% can be expected to have symptoms in the clinical problem range (Edleson, 2001). These figures compare with 18% expected for children in the 4–18-year age range (Achenbach, 1991). Conversely, these figures suggest that approximately 60% of school-age children may not be severely affected, at least at the time of evaluation. It remains unclear whether this group of children is merely coping adequately, or whether they are doing well and can be considered resilient, or at least temporarily unaffected, by their exposure to IPV. In this study we attempt to delineate clusters of adaptation following children's exposure to IPV with a nonshelter sample and begin to examine various risk and protective factors that might distinguish one form of adjustment from another.

Studies of profiles in adjustment

To date, two studies have assessed the adjustment profiles of children exposed to IPV using cluster analysis. Using a within group analysis, Hughes and Luke (1998) identified clusters of children exposed to IPV based on the differences in their patterns of adjustment. Children were ages 4–12 ($n = 58$) and residing in a domestic violence shelter. Outcome measures were child self-reports of anxiety, depression, and self-esteem, as well as mothers' reports of child behavior problems. Five distinct profiles emerged: high only in internalizing problems but low in other outcome variables (7%), high primarily in externalizing problems (16%), high levels of both internalizing and externalizing behavior problems (16%), moderate levels of externalizing behavior problems, anxiety, and self-esteem (36%), and (26%) low on problem scores and high on self-esteem. The last two groups (62% of the sample) were characterized by low to moderate levels of difficulty and mothers with less depression and anxiety. However, the small sample size and, consequently, small number of subjects in any group (as few as three and four in some cells) limit these findings. Moreover, with the exception of self-esteem, the study relied on measures that primarily identified maladjustment. Finally, the generalizability of results was limited by the use of a convenience sample that was exclusively sheltered.

The second study on the types of adjustment of children exposed to IPV followed a similar design and analytic strategy to detect patterns of adjustment for 228 children, ages 8–14 (Grych, Jouriles, & Swank, 2000). Once again, the sample consisted only of children living in shelters for abused women and the outcome measures were mother-reported behavior problems and child-reported anxiety, depression and self-esteem. This study also identified five distinct clusters: No Problems Reported (31%), Externalizing Problems (23%), Multiproblem-Externalizing (19%) with high externalizing problems and somewhat elevated internalizing scores, Multiproblem-Internalizing (11%) with high levels of depressive symptoms and somewhat elevated externalizing problems, and Mild Distress (18%) with slightly elevated internalizing problems and low externalizing. Grych and colleagues reported that the Mild Distress and No Problems groups accounted for 49% of the children. Predictors were parent support and the child's perception and appraisals of IPV.

Profile representativeness and assessing resilience

Together these studies raise several issues. First, while they suggest that a significant number of children witnessing IPV and living in shelters for battered women are at-risk for behavioral problems and depressive symptoms, they also make clear that a significant number of children do not manifest such problems. Second, the findings of the two studies are reflective of sheltered women and children; while other research on violence against women indicates that only a small proportion of battered women ever go to a shelter (Straus & Gelles, 1995). Since children in families seeking refuge may have been exposed to more frequent abuse, and more severe abuse, than children living in the community (Fantuzzo et al., 1991; Graham-Bermann, Lynch, Banyard, DeVoe, & Halabu, 2007), the reported profiles may not represent most battered women and their children. This is more so the case because the adjustment of children in shelters is likely compounded by displacement from home and familiar surrounds, with temporary relocation in a strange setting. Thus, the samples used in the studies above do not likely represent the experiences of most children exposed to IPV. Samples of children living in

community contexts are needed to determine the proportions of children with psychopathology and adjustment problems, as well as those who are coping adequately, following violence exposure. Additionally, because resilience appears to be a composite of functioning in social, emotional, cognitive and behavioral domains, an array of measures tapping these areas should be employed in the assessment of children's functioning in order to identify children who may be functioning competently despite adversity (Wolfe et al., 2003).

Identifying potential factors to discriminate among profiles

We seek to identify key elements that may distinguish different profiles of children's adjustment. The broader developmental psychopathology literature indicates a host of variables that have been shown to contribute to the adjustment and resilience of children exposed to abuse, neglect, parental mental illness, poverty, and other forms of adversity (Jaffe et al., 2007; Luthar, Cicchetti, & Becker, 2000). Factors specifically associated with levels of psychopathology have included elements particular to the child, to the parent, and to the environment (Werner & Smith, 1992).

Characteristics of the individual child

Studies seeking to find differences in adjustment for boys and girls exposed to IPV are not conclusive. More recent reports find no gender differences in this regard (Jaffe, Moffitt, Caspi, Taylor, & Arsenault, 2002). Yet one characteristic of the child that is consistently associated with lower risk of negative outcome is age greater than 5 years (Fantuzzo & Boruch, 1997; Holden, Stein, Ritchey, Harris, & Jouriles, 1998). In other studies, associations are found between adjustment problems, family violence and children's individual beliefs about family relationships and the safety of family members (Davies, Harold, Goeke-Morey, & Cummings, 2002; Graham-Bermann, 1996; Grych, Wachsmuth-Schlaefer, & Klockow, 2002). In these studies, children in families with IPV report greater anxiety about the potential for violence and harm to family members than children in non-IPV families with such concerns related to greater problems in adjustment. It appears that children exposed to IPV can develop deleterious paradigms and expectations of family relationships that are associated with their coping and adjustment (Graham-Bermann & Brescoll, 2000).

Characteristics of the mother

Women exposed to IPV frequently show evidence of trauma symptoms and depression (Levendosky & Graham-Bermann, 2000; Levendosky et al., 2004; Lilly & Graham-Bermann, 2008). In other studies maternal depression is associated with decrements in child functioning in IPV families (English, Marshall, & Stuart, 2003; Finkelstein et al., 2005). Here it is hypothesized that mothers' depression may interfere with parenting functions. Conversely, a number of studies suggest that mother's mental health provides a protective function for children in families with IPV (Jaffe, Wolfe, & Wilson, 1990; Levendosky, Leahy, Bogat, Davidson, & von Eye, 2006).

Violence exposure

The amount of violence that the child has been exposed to is related to children's maladjustment in a number of studies (Kilpatrick & Williams, 1998; Wolfe et al., 2003). Kitzman notes in a metaanalytic review that children who witness less severe forms of IPV evidence less severe symptoms than do children who witness more severe IPV (Kitzman, Gaylord, Holt, & Kenny, 2003). In other studies, it is the history of violence exposure and number of violent partners that are related to later negative effects (Bogat, Levendosky, Theran, von Eye, & Davidson, 2003; Litrownik, Newton, Hunter, English, & Everson, 2003). Still, overall, IPV accounts for approximately 12% or less of the variance in child adjustment problems (Fantuzzo & Lindquist, 1989; Levendosky & Graham-Bermann, 2000).

Characteristics of the family

Adequate family functioning and parenting skills are associated with adaptive coping for children in other deleterious circumstances (Haskett, Nears, Ward, & McPherson, 2006). Hence, children in families with IPV are similarly thought to be protected if their parents retain adequate functioning even when under duress. Studies of parenting stress and parenting skill compare outcomes for children in violent and nonviolent families (Levendosky & Graham-Bermann, 2001; Moore & Pepler, 1998; Wolfe, Jaffe, Wilson, & Zak, 1985) and suggest that the parent's ability to perform under stressful circumstances serves a protective element between family violence and child adjustment (Davies, Sturge-Apple, & Cummings, 2004; Margolin, Gordis, & Oliver, 2004). In other studies of nonviolent families resilient children are found to have at least one warm and loving parent (Masten & Coatsworth, 1998) and have parents with problem-solving skills (Luthar et al., 2000).

Summary

Given such research on resilience in at-risk children and the relative absence of attention to adaptive outcomes in the IPV literature, the present study was designed to address two broad issues. The first objective was to identify a range of outcome

profiles, including those that are positive, for children exposed to IPV who were not living in shelters for battered women. Cluster analysis was used to examine individual differences based on multiple measures of the children's functioning. Given the review of studies it was expected that children could be categorized by the similarity between their levels of both psychopathology and adjustment and that clusters would differ in levels of these outcomes. In addition, it was hypothesized that a significant number of children would be categorized as either coping adequately or doing well in some way. Specifically, it was hypothesized that approximately 40% of the children from violent homes would show heightened levels of adjustment problems and that approximately 60% of the children would not have clinical level adjustment problems. Further, a smaller number of children in the latter category would be high in both self-worth and competence. The second objective was to assess the strength of variables that characterized the child, the mother, and the family's functioning in predicting to clusters or profiles of children's adjustment. It was posited that profiles would differ by the amount of IPV witnessed by the child and the mother's history of violent partners, such that profiles describing adjustment problems would have higher witnessed violence and history of violent partners than profiles indicating more adaptive or resilient functioning. Based on previous studies, child age (over 5 years) and gender were not expected to significantly differentiate among adjustment profiles. Following previous research, it was further posited that adjustment profiles would differ for children by mean levels of mothers' depression and posttraumatic stress, with coping and resilient profiles characterized with lower levels depression and traumatic stress. Following the findings of other risk and protection studies, at the family level, it was hypothesized that positive family functioning and the parenting qualities of warmth and effectiveness would distinguish between high functioning and low functioning profiles of adjustment.

Methods

Participants

The sample consisted of 219 children aged 6–12 ($M = 8.49$, $SD = 2.16$) who were exposed to IPV within the past year. Women and their children (109 boys, 110 girls) were invited to participate in a research study, a parenting support group for battered women, and/or a support program for children who had been exposed to IPV. All women and children were given the opportunity to receive services, if interested. Recruitment occurred in various community settings in urban and rural communities in southeastern Michigan, including social service agencies, through flyers, and newspaper advertisements. It should be noted that the sample was predominantly residing in the community and not sheltered at the time of the study. Child ethnicity was Caucasian (52%), African-American (34%), Biracial (9.5%), or other races (4.5%).

Mothers' age averaged 33.10 years ($SD = 5.29$). Sixteen percent had some high school education, 67% graduated high school, 13% had a college degree, and 4% obtained a graduate degree. Relationship status indicated 23% single women, with 8% living with a partner, 20% married, 30% separated, 17% divorced, and 2% remarried. There were 17% still living with the perpetrator. For those not living at home, children's visits with their father ranged from 0 to 365 days per year ($M = 159$, $SD = 147$). Mothers worked an average of 16.89 hours per week ($SD = 18.76$) and made $1,366 per month, although income had a wide range ($SD = $1,315).

Measures

A demographics questionnaire was administered to each mother to ascertain basic background information, such as age, income, ethnicity, education, and relationship status.

Clustering variables

Mothers completed the *Child Behavior Checklist* (CBCL) (Achenbach & Edlebrock, 1993), a measure with 113 items assessing children's emotional and behavioral problems. The two broadband subscales, Internalizing and Externalizing behavior problems, were used in the present study. Internalizing behaviors include withdrawal, anxiety, depression, and somatic complaints. Externalizing behaviors include delinquency and aggression. The CBCL has been proven to be both highly reliable and valid in extensive research with clinical populations (Achenbach & Edlebrock, 1993). Reliability of CBCL scales ranges from .81 to .87 (Achenbach, 1991). For the present study reliability was (α) .90 for Internalizing, and .93 for Externalizing.

Children completed the *Child Depression Inventory* (CDI) (Kovacs, Brent, Steinberg, Paulauskas, & Reid, 1986). The 27-item scale uses self-reports to assess depressive symptoms including mood disturbances, self-evaluation, feelings of pleasure, sleep disturbance, and interpersonal behaviors. Internal reliability for the present study was .90.

The children completed the *Harter Perceived Self-Competence Scales for Children* (Harter, 1982, 1985). The measure is designed for use with normal children, in third grade and above. The Global Self-Worth and Social Competence scales were used in the present study. Social Competence assesses popularity with peers and interpersonal competence with 6 forced choice questions concerning the child's ability to make friends, to have many friends, and feeling liked by others. Global Self-Worth is a 6-item measure of general self-esteem, and asks the child to evaluate the extent of being happy with oneself, sure of oneself and liking oneself, independent of any skill domain. In the present study, internal reliability for these scales was moderate to low; the Global Self-Worth scale α was .65 and the Social Competence scale α was .53. Mean scale scores can range from 1 to 4.

Witnessed violence

Mothers were asked to complete the *Conflict Tactics Scales* (CTS) (Straus, 1979) an 18-item measure of the frequency and severity of IPV by a partner to the mother during the past year. The CTS was designed to assess the incidence and prevalence of problem solving, mild and severe IPV tactics in studies of national samples of American families (Gelles & Straus, 1988; Straus & Gelles, 1995). Mothers were asked whether particular violence tactics occurred within the past year and then to estimate the number of times each tactic was used. Next mothers were asked to indicate whether the child was eyewitness to each violence tactic. Thus, the child eyewitness score consists of the frequency of events that occurred that the mother indicated the child had witnessed. The internal consistency of the combined mild and severe aggression scales (15 items) of the CTS was $\alpha = .87$. In the present study, the internal consistency was .86. In order to further describe the experience of family violence, the mothers were asked to indicate whether they ever had more than one violent partner in their lives.

Child predictors

The Family Fears and Worries Scale (FWS; Graham-Bermann, 1996) is a 20-item rating scale questionnaire designed to evaluate interpersonal anxiety or worries a school-age child may have regarding family members. Two reliable factors were identified as the Vulnerable factor, consisting of items related to the named person's becoming hurt, hungry, sick, afraid, or in need of help, and the Harmful factor, consisting of items describing a person being a harmful, hurtful, or a threat to others. Reliability of the Vulnerable scale ranged from (α) .77 to .88 and the Harmful scale ranged from .81 to .87 across five family members (Graham-Bermann, 1996). One-week test-retest reliability ranged from .62 to .84 (Harmful) and from .59 to .74 (Vulnerable). Construct validity was obtained by significant correlations of FWS factors with the CBCL anxiety/depression subscale (Achenbach & Edlebrock, 1993). The measure differentiated known groups of children in families with violence from those in similarly low income but nonviolent families. The Harm by father scale consisted of 6 items, and the Vulnerability of mother scale consisted of 12 items as used in the present study. Using a 4-point scale children were asked to indicate how much they worry that their father might do harm with questions tapping concern that the father will do something that scares the child, get arrested, get in a fight, be mad, and will hurt someone. Questions assessing worry about the mother's vulnerability include worry that the mother will get hurt, feel sad, feel afraid, need help, and not be able to prevent bad things from happening. For the present study, father Harm $\alpha = .81$ and mother Vulnerability $\alpha = .88$.

Maternal mental health

The *Beck Depression Inventory* (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item measure assessing depressive symptoms. The measure has been shown to successfully discriminate clinically depressed and nondepressed samples of adults (Beck, Steer, & Garbin, 1988). Items assess various aspects of depression, including somatic complaints, guilt, worthlessness, and indecisiveness. The reliability of this scale is (α) .86 as established in the original study (Beck et al., 1961). The validity of this scale was also high in a study comparing the BDI and a psychiatrist's rating of the same patient ($r = .77$) (Bumberry, Oliver, & McClure, 1978). Due to the high reliability and validity of the BDI it has been widely used in psychological studies, including some studies of battered women. Internal consistency for the present study was .90 (α).

The mothers rated their level of trauma with the *Posttraumatic Stress Scale for Family Violence* (Saunders, 1994). This scale was specifically created for women who have experienced IPV. The 17 questions were based on the individual symptoms from the DSM III-R (APA, 1987) diagnosis of PTSD. For example women were asked to report on traumatic re-experiencing symptoms with questions concerning unwanted remembering of the event, upsetting dreams about the event, flashbacks, becoming upset when reminded of the event. Questions about avoidance symptoms included trying to avoid thoughts and feelings about the event, avoiding reminders of the event, and thoughts and feelings associated with the event. Questions tapping physiological reactivity were being overly alert, very easily startled, having physical reactions such as shaking and sweating when reminded of the abusive event. Using eight possible ratings, the women indicated whether the symptoms (1), did not occur or occurred 1–2 times (2), 3–11 times (3), 12–24 times (4), 25–36 times (5), 37–50 times (6), 51–100 times (7), or over 100 times (8) in the last year. Saunders (1994) found a .94 reliability coefficient, and a correlation of $r = .58$ with other PTSD scales. For the current study $\alpha = .88$.

Parenting and family functioning

The *Anxiety and Parental Childrearing Styles Scale* (APCSS, Sameroff, Thomas, & Barrett, 1990) assesses parents' child-rearing styles along dimensions traditionally associated with child rearing: warmth, control, child-centered, democracy, justification, reflectiveness, consistency, rigidity, severity, guilt induction, and effectiveness. The internal reliability of these subscales was reported as ranging from .66 to .74 (α). Mothers were asked to respond to 62 items that had two polar forced choices that were then judged to be sort of true or really true of her. Mean scale scores range from 1 to 4. The APCSS has been used in several studies of high-risk families (Levendosky & Graham-Bermann, 2000). For the present study the parenting warmth ($\alpha = .86$, 10 items) and parenting effectiveness ($\alpha = .84$, 6 items) scales were used.

Family functioning was measured with the *McMaster Family Assessment Device* (FAD) (Epstein, Baldwin, & Bishop, 1983). There are five subscales and a general functioning scale representing the family's ability in problem solving, communication,

appropriate roles, affective responsiveness, affective involvement and behavioral control. The FAD Problem Solving (5 items) and FAD Affective Involvement (7 items) reliabilities were reported as $\alpha = .74$ and $\alpha = .78$, respectively, by Epstein, Baldwin, and Bishop (1983). In the present study $\alpha = .84$ for FAD Problem Solving and .90 for FAD Affective Involvement. Scores for each scale range from 1 to 9.

Procedure

Following Institutional Review Board (IRB) approval, mothers interested in participating in the study contacted the research team by phone. Interviews took place in a variety of private sites near the participants' homes. Interviewers were advanced undergraduate and graduate student research assistants who underwent training in research ethics and 40 hours of training in working with survivors of IPV conducted by a local domestic violence shelter. In addition, all interviewers received 6 hours of training in clinical interviewing techniques. Both males and females conducted interviews with children, whereas female interviewers conducted mothers' interviews only. Wherever possible, ethnicity of the participant was matched with the ethnicity of the interviewer. Mothers signed informed consent forms and children gave their assent to participate. The rights of both mothers and children were protected at all times. That is, study participants were told that they could stop at any time, could "pass" or not answer any question, and were given referrals for appropriate and affordable mental health services when indicated or needed. In addition, they were assured that their identities and responses would remain confidential. Mothers were paid $20 and children were given a small gift worth approximately five dollars in exchange for participating.

Results

Violence exposure

Mothers in this group reported the frequency of threats to do physical harm ($M = 46$, $SD = 48.5$), mild violence ($M = 19$, $SD = 31$) and severe physical violence ($M = 11$, $SD = .19$) against them by an intimate partner during the past 12 months. Children were reported as present during 100% of the incidents of threats and mild violence and 78% of incidents of severe violence. Thus, their children witnessed a mean of 73 violence tactics per year. It should be noted that some tactics may have co-occurred, such as witnessing a beating and threats to do physical harm. Further, these figures varied considerably ($SD = 78.16$, range = 1–333). Children reported a mean of 2.63 ($SD = .80$) on the mother Vulnerable scale and a mean of 2.43 ($SD = .80$) on the father Harmful scale. Forty-one percent of mothers reported having had a previous violent partner in their lifetime.

The vast proportion of mothers were in the clinical range on depression. BDI scores ranged from 1 to 51 ($M = 17.18$, $SD = 10.85$). Only 26.5% were not depressed, while 36.5% had mild to moderate depression, 22% had moderate to severe depression and 15% were severely depressed. Mothers' PTS scores ranged from 17 to 135 ($M = 68.4$, $SD = 33.01$) indicating symptoms occurred an average of 3–11 times. Family functioning was relatively low. FAD Problem Solving and Affective Involvement mean scale scores were $M = 3.01$, $SD = .69$ and $M = 2.89$, $SD = .69$, respectively, on a 9-point scale. Mothers reported both parenting warmth ($M = 2.98$, $SD = .79$) and Effectiveness ($M = 2.72$, $SD = .80$) as somewhat higher (range = 1–4).

Mean CBCL raw scores were 17.25 for Externalizing ($SD = 12.05$, range = 0–54) and 13.50 for Internalizing ($SD = 9.96$, range = 0–45). Of the total sample, 39% of boys were in the clinical range on Internalizing scores and 26% on Externalizing scores. Of girls, 36% were in the clinical range on Internalizing problems and 21% in Externalizing problems. Thirty-one percent of children were in the clinical range of scores on depression (CDI $M = 10.24$, $SD = 7.40$). Raw scores ranged from 0 to 35 and were converted to T-scores for analyses of this measure. Self-esteem and social competence mean scores were relatively high ($M = 2.89$, $SD = .64$ and $M = 2.73$, $SD = .62$, respectively) and ranged from 1 to 4.

Identifying profiles of adjustment

A cluster analysis was performed in order to organize the children into relatively homogenous groups based on multiple measures of both psychopathology (CDI, CBCL Internalizing and Externalizing scales) and competence (General Self-Worth and Social Competence) using standardized scales. The cluster procedure was run using Ward's method of linkage, which is designed to optimize the minimum variance within clusters (Ward, 1963). Squared Euclidian distance was used to measure the association between variables. Ward's method is a hierarchical procedure, whereby each individual case is initially considered to be a separate cluster. Two similar cases are then joined at each step until one large cluster is achieved. This process generates an agglomeration schedule, which contains coefficients that represent the distance between cluster centroids. Large drops in the distance coefficients signify possible cluster solutions. Solutions in the range expected based on theory must then be examined to see if they produce reasonably sized clusters. This method identifies clusters that are maximally homogeneous within clusters and maximally heterogeneous across clusters.

For these data, the agglomeration schedule clearly showed that the most parsimonious fit was a four-cluster solution. To check the validity of the four-cluster solution, two additional analyses were undertaken. First, the cluster solution was tested using two random split halves. The sample of children was randomly divided, a cluster analysis performed, then the two halves compared. The second analysis relied on testing two groups identified by gender. In both cases, the four-cluster solution remained a good fit for the data.

Table 1
Means, standard deviations and their differences for clustering variables child adjustment, depression, self-worth and social competence by cluster ($n = 214$).

	Cluster							
	1. Severe problems ($n = 52$)		2. Struggling ($n = 97$)		3. Depressed ($n = 23$)		4. Resilient ($n = 42$)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Clustering variables:								
CBCL girls *T* scores:								
Internalizing	74.64[a,b,c]	8.31	56.27	12.01	53.14	10.70	52.09	19.18
% Clinical range	87%		24%		13%		17%	
Externalizing	75.73[a,b,c]	7.20	52.47	13.99	50.50	16.53	54.61	7.45
% Clinical range	81%		8%		9%		4%	
CBCL boys *T* scores								
Internalizing	73.83[a,b,c]	5.87	56.69	14.70	48.44	21.09	52.68	15.68
% Clinical range	86%		23%		13%		16%	
Externalizing	74.23[a,b]	6.59	56.15	12.01	47.78	20.75	51.37	15.59
% Clinical range	75%		5%		4%		5%	
Girls depression *T*	55.18[a,b]	7.90	47.59[d,e]	5.84	67.71[f]	10.70	43.91	4.60
% Clinical range	77%		31%		100%		13%	
Boys depression *T*	52.50[a,b,c]	8.74	46.25[d]	7.27	69.22[f]	6.82	44.95	6.87
% Clinical range	57%		27%		100%		26%	
Global self-worth	3.04[a,c]	.56	2.57[e]	.46	2.55[f]	.60	3.67	.34
Social competence	2.71[c]	.53	2.46[e]	.43	2.75[f]	.72	3.39	.50

Note: Cluster 1 to cluster 2, a = $p < .001$; cluster 1 to cluster 3, b = $p < .001$; cluster 1 to cluster 4, c = $p < .001$; cluster 2 to cluster 3, d = $p < .001$; cluster 2 to cluster 4, e = $p < .001$; cluster 3 to cluster 4, f = $p < .001$.

The four clusters described all of the cases with valid data on the CBCL using raw scores, CDI, General Self-Worth and Social Self-Competence measures (214 cases). A MANOVA ($n = 214$) revealed significant differences among clusters for each of the variables Internalizing, Externalizing, CDI, Self-Worth and Social Competence [$F(4, 15) = 42.71$, $p = .0001$]. The means and standard deviations of the measures for each of the four clusters and their differences are shown in Table 1. The first cluster represents children with Severe Problems (24% of the sample). Children in this group had higher Internalizing and Externalizing scores than children in any other cluster. Depression scores were also elevated for this group, with the second highest CDI scores among the four clusters. Interestingly, children in this cluster also had moderate levels of Social Competence and Global Self-Worth.

Children in the second cluster were labeled as Struggling (45% of the sample). The majority of these children did not have significant Internalizing, Externalizing, or depression problems, but also had low scores on the Global Self-Worth and Social Competence measures. Other researchers have described children in groups with similar profiles as "Hanging in There" (Hughes & Luke, 1998).

The third cluster consisted of children who were Depressed (11% of the sample). They all had the highest CDI scores, but the lowest Internalizing and Externalizing scores of children in any group. Children in this group were also low in Global Self-Worth with moderate levels of Social Competence.

The fourth cluster represents children who can be described as Resilient (20% of the sample). These children had higher levels of Global Self-Worth and Social Competence and lower levels of depression than children in any other cluster. In addition, their Internalizing and Externalizing scores were the second lowest of the four clusters. This cluster somewhat resembles the 'No Problems Reported' cluster found in the Grych study (Grych et al., 2000).

Since one would expect Internalizing symptoms to be strongly associated with reported depression, it is notable that all of the children in the Depressed group scored in the clinical range for depression but far fewer of these children had Internalizing scores in the clinical range. This may be due to the fact that the Internalizing scale consists of subscales measuring how withdrawn children are, how many somatic complaints they have, and how anxious/depressed they are. Thus, because symptoms of depression make up only a part of the Internalizing measure, Internalizing scores may not correspond well with CDI scores. Alternately, since the depression scores are reported by the children while the Internalizing scores are reported by the mothers, it is possible that this discrepancy is due to source variance (i.e., children tending to report higher distress across measures than their mothers).

The finding that fewer children in the Depressed group than in the Struggling group scored in the clinical range for Internalizing problems was also unexpected. In order to examine whether inclusion of the withdrawn and somatic complaints subscales in the internalizing measure accounted for the higher Internalizing scores of the Struggling group, we ran an independent samples *t*-test comparing the scores on just the anxious/depressed subscale between the two groups. There was a trend toward higher anxiety/depression scores in the Depressed group, $t(2, 118) = 1.89$, $p = .062$. It is possible that children in the Depressed group were more depressed but not more anxious than children in the Struggling group. In this case, had we been able to disaggregate the anxiety and depression items in the internalizing measure, the depression

Table 2
Correlation matrix of variables used in cluster analysis and predicting to adjustment clusters ($n = 219$).

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
2	.021	–															
3	.154*	.055	–														
4	.052	.022	.687*	–													
5	−.089	−.083	.011	.080	–												
6	.004	.165*	.074	.113	−.219**	–											
7	−.013	.088	−.016	.028	−.142*	.346**	–										
8	−.156*	−.166*	.251**	.248**	−.108	.004	.087	–									
9	−.118	−.178*	−.076	−.025	.284**	−.115	−.152*	−.016	–								
10	−.113	−.113	−.054	.055	.171*	−.066	−.157*	−.030	.649**	–							
11	.204*	.160*	.206**	.091	−.179*	.053	.097	−.050	−.083	−.005	–						
12	−.137*	−.112	.373**	.285**	.147*	.−.074	−.118	.176**	.089	.057	−.106	–					
13	−.016	−.057	.307**	.257**	−.014	−.089	−.104	.341**	.023	−.002	−.099	.552**	–				
14	.037	.070	.038	.046	−.002	.472**	.225**	−.074	.051	−.026	.054	−.121	−.085	–			
15	−.089	.093	−.151*	−.142*	.060	.383**	.105	−.212**	.034	−.053	−.001	−.176**	−.180**	.633*	–		
16	.072	.001	−.165*	−.181*	−.072	−.007	.035	.012	−.042	.013	.−68	−.167*	−.182**	−.006	.065	–	
17	.045	.058	−.145*	−.185**	−.018	.038	−.005	−.091	−.026	.030	.−53	−.143*	−.183**	.078	.086	.788**	–

1 = child age; 2 = income; 3 = internalizing; 4 = externalizing; 5 = CDI; 6 = global self-competence; 7 = social self-competence; 8 = witnessed violence; 9 = mom vulnerable; 10 = dad harmful; 11 = mom age; 12 = BDI; 13 = PTSD; 14 = parenting warmth; 15 = parenting effectiveness; 16 = FAD responsiveness; 17 = FAD problem solving. *Note*: With a Bonferroni correction of $\alpha = .05$ for 136 comparisons the significance level is $p = .0004$.

* $p < .05$.

** $p < .01$.

Table 3
Results of multinomial logistic regression predicting to resilient cluster using child, mother and family level covariates and past violent partner as a fixed factor.

	Severe problems			Cluster struggling			Depressed		
	β	*SE*	exp β	β	*SE*	exp β	β	*SE*	exp β
Child level covariates:									
Witnessed violence	.006	.004	1.006	−.002	.003	.998	−.013*	.007	.987
Mom vulnerable	−.327	.350	.721	−.020	.305	.948	.841*	.408	2.319
Dad harmful	.681*	.355	1.976	.269	.308	1.308	−.082	.403	.921
Maternal level covariates:									
Mother age	.022	.044	1.022	−.034	.039	.967	−.089	.052	.915
Mother BDI	.662**	.327	1.939	.646*	.325	1.907	.555	.410	1.741
Mother PTSD	.023*	.011	1.023	.010	.009	1.010	−.002	.012	.998
Family level covariates:									
Warm parenting	−.334	.404	.716	−.838*	.380	.433	−.897	.541	.408
Effective parenting	−.432	.408	.649	−.738*.	381	.478	−.006	.539	1.006
Responsive family	−1.058	.697	.347	.930	.525	2.535	.262	.683	1.300
Family problem solving	−1.292*	.672	.275	−1.181*	.537	.307	−.495	.701	.610
Fixed factor:									
No past partner	−2.247***	.638	.008	−1.133*	.541	.322	−1.414*	.711	.243

* $p < .05$.
** $p < .01$.
*** $p < .001$.

scores of children in the Depressed group may well have been significantly higher than those of children in the Struggling group.

Multinomial logistic regression to delineate cluster covariates

Two methods were used to determine the contributions of independent variables to the four profiles of adjustment. First, a multinomial logistic regression was used to test the relative strength of child, maternal, and family level covariates when entered as a group predicting to the four clusters. Independent variables included witnessed violence, the mean score of the child's assessment of perceived mother Vulnerability and father Harm, mother's mean age, depression and PTS scores, and four indices of parenting and family functioning. A dichotomous variable, whether the mother had a prior violent partner, was entered as a fixed factor. A matrix of the intercorrelations among predictor variables is shown in Table 2. Results are shown in Table 3. Taken together these variables predicted 61% of the classification into the four clusters. These analyses provided high tolerance statistics that ranged between .343 and .967, indicating no multicollinearity problem. Variation inflation (VIF) scores were low and ranged from 1.034 to 2.912.

Results indicate that the Resilient cluster differed significantly from the Severe problems cluster in terms of the child's having less concern that the father would do something Harmful, mothers with lower depression and traumatic stress scores and greater Family Problem Solving ability. Having a violent partner in the past distinguished not only the Severe Problems cluster, but also the Struggling and Depressed clusters from the Resilient one. That is, mothers with children in the Severe Problems, Struggling, and Depressed clusters were more likely than expected to have had a past violent partner. Children in the Struggling cluster were distinguished from the Resilient cluster by having mothers who were significantly more depressed and had lower Warmth and Effective Parenting. Depressed cluster children were significantly more worried about the Vulnerability of their mothers than were Resilient children.

Follow-up T-tests comparing cluster pairs on predictor variables

Follow-up *t*-tests of continuous variables and Chi squared analyses of categorical variables showed the significance of differences in individual predictors between specific pairs of clusters, as shown in Table 4. It should be noted that there were no significant differences among profiles based on the age, sex, or ethnicity of the child, mothers' education, whether the mother was working or had a past violent partner, number of visits with the father, marital status, and family income.

Overall the Severe Problems cluster was distinguished by greater violence, poorer maternal mental health and parenting. Specifically, children in the Severe Problems cluster were exposed to significantly more violence and had mothers with greater symptoms of traumatic stress than children in the Depressed cluster. Severe problems children also had mothers with significantly less parenting warmth than children in the Struggling cluster.

The Resilient cluster was generally distinguished by better maternal mental health and parenting skill. That is, Resilient cluster mothers had significantly less depression than the Severe Problems cluster mothers. Resilient cluster mothers also had higher effective parenting mean scores than those in either the Severe or Struggling clusters. Struggling cluster mothers were significantly less effective in parenting than those whose children were in the Depressed cluster. Family level variables of responsive family style and family level problem solving did not differentiate between the clusters.

Table 4
Means, standard deviations and their differences for child, mother, and family level variables by cluster.

	Cluster							
	1. Severe problems		2. Struggling		3. Depressed		4. Resilient	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Violence variables:								
Violence seen	107[a]	84.4	73.4	78.7	27.90	36.1	59.53	73.4
No past partner	31%		43%		30%		51%	
Child variables:								
Mom vulnerable	2.62	0.76	2.59	0.81	3.12	0.80	2.51	0.82
Dad harmful	2.49	0.79	2.44	0.83	2.58	0.99	2.30	0.83
Mother variables:								
Mother age	34.6	6.61	33.2	5.33	31.14	5.21	34.4	7.03
BDI	22.3[c]	10.0	17.2	11.3	14.9	10.4	11.6	7.97
Mother PTSD	82.9[a]	30.7	69.0	33.1	51.3	26.5	55.4	30.2
Family variables:								
Warm parenting	3.13[b]	0.71	2.62[e]	0.76	3.11	0.86	3.55	0.48
Effective parenting	2.63[c]	0.80	2.45[d,e]	0.73	3.02	0.81	3.29	0.67
Responsive family	2.64	0.39	2.97	0.83	2.88	0.45	3.06	1.05
Problem solving	2.81	0.41	2.98	0.85	3.08	0.37	3.25	1.06

Cluster 1 to cluster 3, $a = p < .001$; cluster 1 to cluster 2, $b = p < .001$; cluster 1 to cluster 4, $c = p < .001$; cluster 2 to cluster 3, $d = p < .001$; cluster 2 to cluster 4, $e = p < .001$. *Note*: With a Bonferroni correction of $\alpha = .05$ for 66 comparisons the significance level is $p = .0007$.

It should be noted that there was no statistically significant difference between the amounts of witnessed violence in the Resilient cluster as compared to other clusters. It is important to note that the Resilient children witnessed on average, 60 violent events per year. Under some definitions of violence exposure, one violent act can be deemed witnessed violence; therefore 60 acts remains a significant amount of exposure. Clearly, while there was variability in the amount of violence exposure, all of the children in this study were experiencing high levels of violence in the home.

Discussion and summary

This study provides evidence that patterns of adjustment documented in prior research on children drawn from shelter samples also can be identified in a community sample. The study was successful in identifying both positive and negative profiles of adjustment for children exposed to domestic violence. Findings reported here are similar in some ways to those of prior studies using samples of children in shelters (Grych et al., 2000; Hughes & Luke, 1998). For example, the high levels of violence are similar to those seen in the Grych et al. sample where 75% of the mothers reported being kicked or hit in the previous year. Such events occurred more than 20 times for 19% of the present study mothers. Additionally, rates of exposure are similar to other studies that indicate upwards of 90% of children living in violent homes are witnesses to violence each year (Margolin & Gordis, 2000). Levels of violence among clusters show some similarities across studies. Consistent with the Grych et al. project, the Depressed cluster in the current study was exposed to the lowest amount of witnessed violence, followed by the Resilient cluster. Still, there are also some notable differences. For example in the Grych et al. study, children in the mild distress cluster were exposed to the most interparental aggression, as reported by the mother, whereas in the current study, children in the Severe Problems cluster witnessed significantly more violence than children in the Depressed cluster.

The measure of competence allowed the present study's cluster solution to reflect adaptive possibilities. We hypothesized that approximately 40% of the children from violent homes would show heightened levels of adjustment problems and that approximately 60% of the children would not have adjustment problems. Taken together 35% had Severe Adjustment Problems or were Depressed. The remaining 65% did not score high on problems and/or showed competence in the face of violence exposure. These findings reflect those reported by Edleson (2001).

In our study, children with adjustment profiles that were relatively low in problems, but also low in social competence and self-worth, comprised the Struggling cluster. This group most clearly matches Radke-Yarrow and Browne's (1993) term for such children as 'survivors' of adversity because, for the most part, they lack obvious psychopathology but do not necessarily show that all is well. The Resilient cluster represented children who were high in self-worth and social competence with few behavioral problems and little depression. This profile appears closest to what Masten, Best, and Garmezy (1990, p. 426) defined as resilience, or "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstance." These children showed evidence of adaptation in the face of a harmful family environment. Variables such as social competence were conceptualized as outcomes of resilience in this study. Social competence has been viewed as both a protective factor and an outcome factor in various studies of domestic violence. Therefore, there is much difficulty in distinguishing such factors in resilience research. We chose to conceptualize social competence as an outcome based on previous research in studies of children with risks and challenges in their lives other than exposure to IPV (Hughes &

Graham-Bermann, 1998; Margolin, 1998). Certainly, children in these, or any of the other profiles of adjustment, may also show an increase in deficits later in life. Conversely, children with more serious problems could develop greater competence and social skills as they age.

Researchers often give contradictory descriptions of what is a positive or successful adaptation to a challenge in the child's environment. For example, Luthar and colleagues noted confusion surrounding the terms risk, resilience, protective factors, ameliorative effects or compensatory factors (Luthar, Doernberger, & Zigler, 1993). Perhaps researchers have attempted to dichotomize the term resilient so that it encompasses all children with certain characteristics or those who are above a certain cutpoint, rather than looking across domains in determining who is and is not doing well and under what conditions. Nevertheless, although it remains unclear whether resilience is a goal, a process, or a characteristic within an individual child, there are desirable developmental outcomes for all children, and those who attain these goals under adverse circumstances may be considered resilient. The data fit our model by suggesting a continuum of adjustment whereby risk factors were associated with decreased functioning and protective factors were associated with enhanced functioning.

Following Kilpatrick and Williams (1998) and Wolfe et al. (2003) the amount of violence the child has been exposed to in the past year was negatively associated with overall adjustment. Still, as predicted, the role of witnessed violence was significant, in combination with other predictors, in characterizing at least two adjustment profiles of the children in this study Yet, as Kitzman et al. (2003) and Bogat et al. (2003) note, the history of violence is also important. Here, more than one past violent partner significantly distinguished Resilient from the Severe Problems, Depressed and Struggling adjustment profiles.

A unique predictor to the Depressed Only cluster was the child's worry and concern for the safety of the mother. While not high in other forms of psychopathology, and despite having witnessed less violence, these children have the youngest mothers who were most likely to have had another violent partner. Of all clusters, they showed the greatest concern about mother's well-being. Yet their mothers were not particularly high in depression or trauma symptoms. Previous studies have compared children's expectations of family members in violent and nonviolent families and related that to child anxiety (Davies et al., 2002; Grych et al., 2002). Perhaps, the worry and anxiety of the children in this study also was expressed as depression.

As in previous studies, maternal mental health was a significant risk factor and predictor of negative child adjustment (English et al., 2003). High mean scores of both depression and PTS distinguished Severe Problems from the Depressed cluster. Perhaps the absence of maternal mental health problems can be considered a protective feature that characterizes the Resilient cluster, although studies of positive maternal mental health attributes, such as optimism and self-competence, would better answer this question.

Davies et al. (2004) and Margolin et al.'s (2004) research noted that mother's ability to parent under the stress of family violence protects children from more adverse problems in adjustment. Our findings show that within the domain of parenting ability, it is parenting warmth that distinguished those in the Struggling from the Resilient clusters, while parenting effectiveness differentiated Resilient cluster children from both those with Severe Problems and those who were Struggling. These findings suggest that effective parenting behaviors, such as using appropriate discipline and setting limits, may protect children by helping them to manage their own behavior and by providing positive role models, despite exposure to IPV.

In sum, as in studies of children in other high-risk circumstances, this study successfully identified factors of the individual child, the parent, and the family, to distinguish between high functioning and low functioning profiles of adjustment for children exposed to IPV. Yet there are study limitations including those related to participants and to the measures used to assess key constructs. While the study participants came from the community rather than shelter settings, this is a study of primarily poor families with school-age children in the Midwest. Further, participants were those who were willing to participate in random assignment to support groups. It should be noted that the numbers of African-American and biracial children exceeded demographic expectations and that few Asian American and Latina/o families participated in the study.

All measures used in the study were standardized yet they were restricted to child and mother report, rather than including the intimate partner's perspectives or the perspective of others outside the family. Use of the more recent CTS2 to assess IPV would also have strengthened the study. Further, the CTS is limited in that it does not measure the number of separate, nonoverlapping incidents of violence experienced by the mother and witnessed by the child. Unfortunately, it was not possible to give a diagnosis of mothers' PTSD with the measure used in this study. Yet almost every measure in this study had high reliability; the two Family Fears and Worries scales were exceptions with low alphas. One strength of the study was the use of multiple reporters for similar constructs. That is, a parent reported the child's Internalizing problems and the child self-reported depression symptoms. However, the strong correlation between mothers' reports of child psychopathology and mothers' BDI and PTS scores may raise validity issues and questions of mothers' ability to report on her child's functioning. The issue of whether mothers in distress are reliable reporters is a source of debate in this area of research (Holden, 2003; O'Brien, John, Margolin, & Erel, 1994).

While the age range in this study was from 6 to 12 years, all children were given the same measures of adjustment and coping regardless of their developmental level. It may be the case that the resilience of 6-year-old children differs from that of 12-year-old children. In addition, there is evidence that children can exhibit varying levels of resilience over time (Freitas & Downey, 1998). Since this study was cross-sectional in nature, we cannot determine whether the children deemed resilient at the time of the study remained so, or alternately, whether children in the other clusters became more resilient with the passage of time. Further, children can be resilient under one set of circumstances and not another (Kaufmann, Cook, Arny, Jones, & Pittinsky, 1994). Therefore, it is not clear whether children who are exposed to IPV and appeared resilient

would be resilient in the face of other forms of adversity. Despite these limitations, the study was able to discover which additional factors of the child and of the family differentiated children with problems in social and psychological adjustment from those who appeared to be coping adequately. Thus, the results appear to demonstrate the importance of gathering multimethod, multiinformant data when studying families in crisis.

Transitioning research into clinical practice

Results of this study provide useful information on the types of problems that are found for children exposed to domestic violence living in the community setting. The principle of multifinality applies, as not all children exposed to IPV showed decrements in adjustment. Thus, on a broader clinical scale, results of this study have application in evaluation and identification of how children develop in the context of dysfunctional family relationships. Further, the association between the child's profile of adjustment, be it high in psychopathology or high in competence, and the family experience of violence and current maternal functioning all indicate specific goals for interventions. For example, rather than relying on a one-size-fits-all approach, as is the case in most intervention programs to date (Graham-Bermann et al., 2007), clinical intervention might be tailored to the specific needs of the child. That is, programs might be different for children who are primarily characterized as having Severe Problems or those who are primarily Depressed. Many of the predictors identified in this study are amenable to treatment in community settings. Given that children's functioning is in large part based on parent and family functioning, intervention strategies should be targeted at both the child and the parent to best enhance child functioning. Children's treatment should incorporate opportunities to express emotions associated with IPV, as well as, discuss many of the fears and worries connected to violence exposure. Mother's treatment could include training in more effective parenting skills and psychoeducation regarding the impact of violence exposure. Given that one of our strongest predictors was maternal mental health, mother's depression and traumatic stress should be addressed early in parental treatment to benefit both the individual child and the family.

References

Achenbach, T. M. (1991). *Manual for the child behavior checklist 4–18 and 1991 profile*. Burlington: University of Vermont, Department of Psychiatry.

Achenbach, T., & Edlebrock, C. (1993). *Manual for the child behavior checklist and revised child behavior profile*. Burlington: University of Vermont, Department of Psychiatry.

American Psychiatric Association. (1987). *Diagnostic and Statistical Manual of Mental Disorders* (3rd edition revised). Washington, DC: Author.

Beck, A., Steer, R., & Garbin, M. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. *Clinical Psychology Review*, *8*, 77–100.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, *4*, 561–571.

Bogat, G. A., DeJonghe, E., Levendosky, A. A., Davidson, W. S., & von Eye, A. (2006). Trauma symptoms among infants exposed to intimate partner violence. *Child Abuse & Neglect*, *30*, 109–125.

Bogat, G. A., Levendosky, A. A., Theran, S., von Eye, A., & Davidson, W. S. (2003). Predicting the psychosocial effects of interpersonal partner violence (IPV): How much does a woman's history of IPV matter? *Journal of Interpersonal Violence*, *18*, 121–141.

Bumberry, W., Oliver, J. M., & McClure, J. N. (1978). Validation of the Beck Depression Inventory in a University population using psychiatric estimate as the criterion. *Journal of Counseling and Clinical Psychology*, *46*(1), 150–155.

Davies, D., Harold, G. T., Goeke-Morey, M. C., & Cummings, E. M. (2002). Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development*, *67*(3), vii–viii.

Davies, P. T., Sturge-Apple, M. L., & Cummings, E. M. (2004). Interdependencies among interparental discord and parenting practices: The role of adult vulnerability and relationship perturbations. *Development and Psychopathology*, *16*, 773–797.

Edleson, J. L. (2001). Studying the co-occurrence of child maltreatment and domestic violence in families. In S. A. Graham-Bermann, & J. L. Edleson (Eds.), *Domestic violence in the lives of children: The future of research, intervention, and social policy* (pp. 91–110). Washington, DC: American Psychological Association.

English, D. J., Marshall, D. B., & Stuart, A. J. (2003). Effects of family violence on child behavior and health during childhood. *Journal of Family Violence*, *18*(1), 43–57.

Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster Family Assessment Device. *Journal of Marriage and Family Therapy*, *9*(2), 171–180.

Famularo, R., Fenton, T., & Kinscherff, R. (1993). Child maltreatment and the development of posttraumatic stress disorder. *American Journal of Diseases of Children*, *147*, 755–760.

Fantuzzo, J., & Boruch, R. (1997). Children exposed to domestic violence: Towards better and more useful knowing. In *Child abuse and neglect interventions strategic planning*. Washington, DC: U.S. Department of Justice, National Institute of Justice. Retrieved from the World Wide Web: http://www.doj.gov

Fantuzzo, J., DePaola, L. M., Lambert, L., Martino, T., Anderson, G., & Sutton, S. (1991). The effects of interparental violence on the psychological adjustment and competencies of young children. *Journal of Consulting and Clinical Psychology*, *59*, 258–265.

Fantuzzo, J. W., & Lindquist, C. U. (1989). The effects of observing conjugal violence on children: A review of research methodology. *Journal of Family Violence*, *4*, 77–94.

Finkelstein, N., Rechberger, E., Russell, L. A., VanDeMark, N. R., Noether, C. D., O'Keefe, M., Gould, K., Mockus, S., & Rael, M. (2005). Building resilience in children of mothers who have co-occuring disorders and histories of violence. *Journal of Behavioral Health Services and Research*, *32*(2), 141–154.

Freitas, A. L., & Downey, G. (1998). Resilience: A dynamic perspective. *International Journal of Behavior Development*, *22*(2), 263–285.

Gelles, R., & Straus, M. A. (1988). *Intimate violence: The definitive study of the causes and consequences of abuse in the American family*. NY: Simon & Schuster.

Graham-Bermann, S. A. (1996). Family Worries: The assessment of interpersonal anxiety in children from violent and nonviolent families. *Journal of Clinical Child Psychology*, *25*(3), 280–287.

Graham-Bermann, S. A. (2002). Child abuse in the context of domestic violence. In J. E. B. Myers (Ed.), *APSAC Handbook on Child Maltreatment* (2nd Edition, pp. 119–130). Sage Publications.

Graham-Bermann, S. A., & Brescoll, V. (2000). Gender, power, and violence: Assessing the family stereotypes of the children of batterers. *Journal of Family Psychology*, *14*(4), 600–612.

Graham-Bermann, S. A, Howell, K. H., Habarth, J., Krishnan, S., Loree, A., & Bermann, E. A. (2008). Toward assessing traumatic events and stress symptoms in preschool children from low-income families. *American Journal of Orthopsychiatry*, *78*(2), 220–228.

Graham-Bermann, S. A., Lynch, S., Banyard, V., Devoe, E., & Halabu, H. (2007). Community based intervention for children exposed to intimate partner violence: An efficacy trial. *Journal of Consulting and Clinical Psychology*, *75*(2), 199–209.

Grych, J. H., Jouriles, E. N., & Swank, P. R. (2000). Patterns of adjustment among children of battered women. *Journal of Consulting and Clinical Psychology*, *68*(1), 84–94.
Grych, J. H., Wachsmuth-Schlaefer, T., & Klockow, L. L. (2002). Interparental aggression and young children's representations of family relationships. *Journal of Family Violence*, *16*(2), 259–272.
Harter, S. (1982). The perceived competence scale for children. *Child Development*, *53*, 87–97.
Harter, S. (1985). *Manual: Self-perception profile for children*. University of Denver. Unpublished manuscript.
Haskett, M. E., Nears, K., Ward, C. S., & McPherson, A. V. (2006). Diversity in adjustment of maltreated children: Factors associated with resilient functioning. *Clinical Psychology Review*, *26*, 796–812.
Holden, G. W. (2003). Children exposed to domestic violence and child abuse: Terminology and taxonomy. *Clinical Child and Family Psychology Review*, *6*, 151–160.
Holden, G. W., Stein, J. D., Ritchie, K. L., Harris, S. D., & Jouriles, E. N. (1998). Parenting behaviors and beliefs of battered women. In G. W. Holden, R. Geffner, & E. N. Jouriles (Eds.), *Children exposed to marital violence: Theory, research, and applied issues* (pp. 289–334). Washington, DC: American Psychological Association.
Hughes, H., & Graham-Bermann, S. A. (1998). Children of battered women: Impact of emotional abuse on development and adjustment. *Journal of Emotional Abuse*, *1*, 23–50.
Hughes, H., & Luke, D. A. (1998). Heterogeneity in adjustment among children of battered women. In G. W. Holden, R. Geffner, & E. N. Jouriles (Eds.), *Children exposed to marital violence: Theory, research, and applied issues* (pp. 185–221). Washington, DC: American Psychological Association.
Jaffe, P., Caspi, A., Moffitt, T. E., Polo-Tomas, M., & Taylor, A. (2007). Individual, family, and neighborhood factors distinguish resilient from non-resilient maltreated children: A cumulative stressors model. *Child Abuse & Neglect*, *31*, 231–253.
Jaffe, P., Wolfe, D. A., & Wilson, S. (1990). *Children of battered women*. Newbury Park, CA: Sage.
Jaffe, S. R., Moffitt, T. E., Caspi, A., Taylor, A., & Arsenault, L. (2002). Influence of adult domestic violence on children's internalizing and externalizing problems: An environmentally informed twin study. *Journal of the American Academy of Child and Adolescent Psychiatry*, *41*(9), 1095–1103.
Kaufmann, J., Cook, A., Arny, L., Jones, B., & Pittinsky, T. (1994). Problems defining resiliency: Illustrations from the study of maltreated children. *Development and Psychopathology*, *6*, 215–229.
Kilpatrick, K. L., & Williams, L. M. (1998). Potential mediators of post-traumatic stress disorder in child witnesses to domestic violence. *Child Abuse & Neglect*, *22*(4), 319–330.
Kitzman, K. M., Gaylord, N. K., Holt, A. R., & Kenny, E. D. (2003). Child witnesses to domestic violence: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *71*(2), 339–352.
Kovacs, M., Brent, O., Steinberg, T. F., Paulauskas, S., & Reid, J. (1986). Children's self-reports of psychologic adjustment and coping strategies during first year insulin-dependent diabetes mellitus. *Diabetes Care*, *9*(5), 472–479.
Levendosky, A. A., Bogat, G. A., Theran, S. A., Trotter, J. S., von Eye, A., & Davidson, W. S. (2004). The social networks of women experiencing domestic violence. *American Journal of Community Psychology*, *34*(1/2), 95–109.
Levendosky, A. A., & Graham-Bermann, S. A. (2000). Behavioral observations of parenting in battered women. *Journal of Family Psychology*, *14*, 80–94.
Levendosky, A. A., & Graham-Bermann, S. A. (2001). Parenting in battered women: The effects of domestic violence on women and their children. *Journal of Family Violence*, *16*(2), 171–192.
Levendosky, A. A., Leahy, K. L., Bogat, G. A., Davidson, W. S., & von Eye, A. (2006). Domestic violence, maternal parenting, maternal mental health, and infant externalizing behavior. *Journal of Family Psychology*, *20*(4), 544–552.
Lilly, M. M., & Graham-Bermann, S. A. (2008). Ethnicity and risk for symptoms of posttraumatic stress following intimate partner violence: Prevalence and predictors of European American and African American women. *Journal of Interpersonal Violence*, *24*(1), 3–19.
Litrownik, A. J., Newton, R., Hunter, W. M., English, D., & Everson, M. D. (2003). Exposure to family violence in young children: A longitudinal look at the effects of victimization and witnessed physical and psychological aggression. *Journal of Family Violence*, *18*, 59–73.
Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, *71*, 543–562.
Luthar, S. S., Doernberger, C. H., & Zigler, E. (1993). Resilience is not a unidimensional construct: Insights from a prospective study of inner-city adolescents. *Development and Psychopathology*, *5*, 703–717.
Margolin, G. (1998). Effects of domestic violence on children. In P. K. Trickett, & C. J. Schellenbach (Eds.), *Violence against children in the family and the community* (pp. 57–101). Washington, DC, US: American Psychological Association.
Margolin, G., & Gordis, E. B. (2000). The effects of family and community violence on children. *Annual Review of Psychology*, *51*, 445–479.
Margolin, G., Gordis, E. B., & Oliver, P. H. (2004). Links between marital and parent-child interactions: Moderating role of husband-to-wife aggression. *Development and Psychopathology*, *16*, 753–771.
Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, *2*, 425–444.
Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments. *American Psychologist*, *53*, 205–220.
Moore, T. E., & Pepler, D. J. (1998). Correlates of adjustment in children at risk. In G. W. Holden, R. Geffner, & E. N. Jouriles (Eds.), *Children exposed to marital violence* (pp. 157–184). Washington, DC: American Psychological Association.
O'Brien, M., John, R. S., Margolin, G., & Erel, O. (1994). Reliability and diagnostic efficacy of parents' reports regarding children's exposure to marital aggression. *Violence and Victims*, *9*, 45–62.
Osofsky, J. D. (2003). Prevalence of children's exposure to domestic violence and child maltreatment: Implications for prevention and intervention. *Clinical Child and Family Psychology Review*, *6*(3), 161–170.
Radke-Yarrow, M., & Brown, E. (1993). Resiliency and vulnerability in children of multiple-risk families. *Development and Psychopathology*, *5*, 581–592.
Sameroff, A., Thomas, S., & Barrett, L. (1990, April). *Anxiety and parental childrearing styles*. Presented at the Society for Research in Adolescence, Chicago, IL.
Saunders, D. G. (1994). Post-traumatic stress symptoms profiles of battered women: A comparison of survivors in two settings. *Violence and Victims*, *9*, 31–44.
Straus, M. (1979). Measuring intrafamilial conflict and violence: The Conflict Tactics (CT) scales. *Journal of Marriage and the Family*, *41*, 75–88.
Straus, M., & Gelles, R. (1995). *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families*. New Brunswick, NJ: Transaction Books.
Trocme, N., & Wolfe, D. A. (2001). *Child maltreatment in Canada: Selected results from the Canadian Incidence Study of Reported Child Abuse & Neglect*. Ottawa, Canada: Minister of Public Works and Governmental Services.
Ward, J. H. (1963). Hierarchical grouping to optimize an objective function. *Journal of the American Statistical Association*, *58*, 236–244.
Wekerle, C., & Wolfe, D. A. (2003). Child maltreatment. In E. J. Mash, & R. A. Barkley (Eds.), *Child psychopathology* (pp. 632–684). New York, NY: Guilford Press.
Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to development*. Ithaca, NY: Cornell University Press.
Wolfe, D. A., Crooks, C. V., Lee, V., McIntyre-Smith, A., & Jaffe, P. G. (2003). The effects of children's exposure to domestic violence: A meta-analysis and critique. *Clinical Child and Family Psychology Review*, *6*(3), 171–187.
Wolfe, D. A., Jaffe, P., Wilson, S. K., & Zak, L. (1985). Children of battered women: The relation of child behavior to family violence and maternal stress. *Journal of Consulting and Clinical Psychology*, *53*(5), 657–665.