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Abstract

Children aged 6 to 12 who were exposed to intimate partner violence (IPV) within the last year participated in an intervention program found to be successful in reducing their internalizing and externalizing behavior problems. However, little is known about factors that may contribute to this efficacy. Both fixed and modifiable risk factors that predicted change in children's adjustment after the intervention were identified and tested. There was a significant relationship between the extent of exposure to IPV, gender, change in mothers' mental health, and change in child adjustment. Among fixed factors, length of exposure to violence was found to moderate the relationship between the amount of the child's and mother's participation in the intervention and change in child adjustment, specifically internalizing behavioral problems. Among the modifiable risk factors, change in mother's

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mental health, specifically symptoms of posttraumatic stress, was found to mediate the relationship between the amount of intervention participation and change in child adjustment. These findings can be used to inform and enhance evidence-based clinical services for children exposed to IPV.

Keywords

anything related to domestic violence, children exposed to domestic violence, intervention/treatment

The rate of intimate partner violence (IPV) is estimated between 17% and 21% among married or cohabiting couples annually (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2007). By extrapolation, 15 million children are exposed to domestic violence yearly and the costs to these children are high. Such exposure has been associated with decrements in children's optimal development in the areas of social behavior, academic performance, physical health, and mental health (Graham-Bermann, 1996; Graham-Bermann, Gruber, Girz & Howell, 2009; Graham-Bermann & Seng, 2005; Kitzman, Gaylord, Holt, & Kenny, 2003; Skopp, McDonald, Jouriles, & Rosenfield, 2007). Approximately, 40% to 60% of children exposed to IPV are in the clinical range of internalizing and externalizing behavioral problems, many with overlapping diagnoses, indicating the need for treatment (Grych, Jouriles, Swank, McDonald, & Norwood, 2000). Furthermore, studies of children who are victims of violence and witness violence show that both forms of exposure make unique and independent contributions to behavior problems (Litrownik, Newton, Hunter, English, & Everson, 2003).

To date, little is known about the efficacy of intervention programs designed to aid children exposed to IPV, with only a few programs having documented success in reducing children's behavioral and adjustment problems. Jouriles and colleagues' program reduced the aggressive behavior of children, who were diagnosed with oppositional defiant disorder or conduct disorder, departing from shelters (Jouriles et al., 2001). Lieberman and colleagues' 50-week psychotherapy program reduced traumatic stress and improved behavior in preschoolers exposed to marital violence (Lieberman, Van Horn, & Ippen, 2005). A third community-based intervention program for children of ages 6 to 12 exposed to IPV was found to be effective in diminishing both externalizing and internalizing behavior problems and improving children's attitudes about violence (Graham-Bermann, Lynch, Banyard, DeVoe, & Halabu, 2007). At follow-up, there were 79% fewer children with clinical range externalizing scores and 77% fewer children with clinical range internalizing scores as compared with baseline.

However, despite some success, factors that contribute to change for these children in community-based programs are yet to be explored. In the present study, risk factors that could potentially contribute to the success of one promising evidence-based intervention program were evaluated. This empirically supported program is a weekly, 1-hr group intervention that meets for 10 weeks. It includes two components that run concurrently but in separate locations: the Kids' Club and the mother's Parenting Empowerment Program (Graham-Bermann et al., 2007). The Kids' Club focuses on helping children who have witnessed violence based on the theoretical assumptions that children may have learned harmful patterns of behavior, attitudes, and beliefs as a result of observing parental violence and may be distressed or even traumatized by these experiences. Thus, the program is based on cognitive behavioral theory with a focus on helping children cope with traumatic, interpersonal violence. Each session centers on different topics related to IPV, including feelings children have about fighting, safety plans, and conflict resolution (Graham-Bermann et al., 2007). There are typically five to six children in each group.

The empowerment program was designed to enhance the social and emotional adjustment of mothers who experienced IPV in the past year, leading to fewer mental health difficulties (Graham-Bermann et al., 2007). By extension, children are thought to be assisted when their mothers' coping is enhanced and her mental health problems reduced. The Parenting Empowerment Program also focuses on strengthening protective aspects in the mother's lives, including social support, community resources, and parenting skills, with a focus on limit setting and implementing developmentally effective discipline. During the intervention, mothers discuss how family violence has affected their child's development and functioning. In addition, women's symptoms of posttraumatic stress disorder (PTSD) and issues of safety are addressed. Safety is the priority given that ongoing violence will continue to traumatize the mother and her child. Effective coping strategies and a reduction in trauma symptoms can only occur once safety is maintained. Thus, the psychoeducational element of the intervention program is designed to normalize women's experience of distress, to help reduce their stress, and to provide support and problem solving around parenting challenges (Graham-Bermann et al., 2007).

This study seeks to evaluate change due to the above intervention through mediation and moderation analyses of probable risk and protective factors. By focusing on factors that are amenable to change through the intervention, such as parenting skills and improved mental health, as well as variables that remain constant during treatment, such as demographic factors, we hope to better understand what predicts change in child adjustment. Taken together, we expect that when the mother's adjustment and coping is enhanced, the child's well-being will also improve.

Mediating Variables—Mothers’ Mental Health and Parenting

The scant literature on evidence-based interventions for children exposed to IPV provides little in the way of identifying what predicts success in these programs; therefore, evaluations of programs for children exposed to other forms of family hardship, such as divorce, can be instructive. Mediators, including changes in parenting ability (Wolchik et al., 1993) and improvements in parent’s mental health, have successfully predicted child response following intervention. It is likely that such factors will also be influential mediators in interventions for families exposed to IPV because research on this topic highlights the importance of parenting and maternal mental health on the functioning of children following exposure to violence in the home, regardless of intervention. Maternal emotional functioning following domestic violence exposure has been identified as a key factor that affects child functioning in a number of studies (Cohen, Mannarino, Berliner, & Deblinger, 2000), including mothers’ elevated levels of depression and PTSD (Nixon, Resick, & Nishith, 2004).

There is great variability in parenting competence in families with IPV. Studies of parenting stress and parenting skill have compared outcomes for children in violent and nonviolent families (Graham-Bermann & Levendosky, 1998; Levendosky & Graham-Bermann, 2000) and have consistently demonstrated that the mother’s ability to perform under stressful circumstances mediates the relationship between family violence and child adjustment. Children of mothers who are able to provide a more solid parenting environment typically develop a stronger attachment and fair better over time (Levendosky, Huth-Bocks, Shapiro, & Semel, 2002). In the current intervention study, maternal mental health and parenting capabilities are targeted as mediating variables for change.

Identifying Potential Moderating Variables

Research provides more information about elements associated with the individual child that influence adjustment following exposure to IPV. Studies report that IPV frequency and severity significantly affect child outcome. Grych, Wachsmuth-Schlaefler, and Klockow (2002) found that children’s maladjustment, such as internalizing symptomatology, increased with greater exposure to violence, particularly from exposure to violence toward the mother. Kitzman notes in a meta-analytic review that children who witness less severe forms of IPV evidence less severe symptoms than do children

who witness more severe IPV (Kitzman et al., 2003). In other studies, it is the history of violence exposure and number of violent partners that are related to later negative effects (Litrownik et al., 2003). Still, little is known about whether family violence factors are related to changes due to intervention.

Research is inconsistent with regard to the impact of demographic variables on child functioning following IPV exposure. Studies do find that child age is a relevant demographic factor because exposure to IPV does not occur uniformly across the life span. Younger children are more likely to be exposed to IPV and are found to have more deleterious outcomes (Fantuzzo et al., 1991). In terms of gender, some research shows that boys from violent families have a higher risk of using abusive tactics in their young-adult relationships, whereas others have found that girls who witness violence in the home are more likely to exhibit behavioral problems (Cummings, Pepler, & Moore, 1999). Specific studies that evaluate how ethnicity affects child witnesses to IPV have remained limited. Given variations across ethnicity in the IPV experienced, it can be assumed that children of diverse ethnicities have varied experiences of exposure (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005).

Hypotheses

The primary goal of this study is to understand why the intervention that was proven to be successful had an effect and for which groups it was most effective. Following the literature review, two main factors amenable to change via the intervention that are likely to influence outcome for the child are parenting and mothers' mental health. We posit that improved parenting and improved mental health for the mother (both key targets for the intervention program) mediate the relationship between participation in the intervention and child adjustment, operationalized as internalizing and externalizing behavior problems. Stable factors related to the child and family are posited to moderate the relationship between participation in the intervention and child adjustment. The research literature leads us to believe that the degree of exposure to family violence will moderate the intervention program's effectiveness, such that more violence will have a multiplicative effect on outcome with intervention participation also taken into account. Given the inconclusive findings of past research regarding demographic variables, we do not expect child age, ethnicity, or gender to moderate the intervention's effect on outcome. By examining the relationship between risk factors and change in child adjustment for one promising intervention program, we seek to identify factors that both contribute to and influence changes in adjustment for children exposed to IPV.

Participants

One hundred eighty children of ages 6 to 12 ($M = 8.34$, $SD = 2.05$; 47% boys) whose mothers were exposed to IPV in the last year were invited to participate in a 10-week intervention program as part of an efficacy trial of the Kids' Club and Moms Parenting Empowerment programs (Graham-Bermann et al., 2007). Child attendance ranged from 5 to 10 sessions ($M = 7.35$, $SD = 1.50$). Child ethnicity was diverse (52% White, 33% African American, 11% Biracial, 2% Latina/o, 2% Native American). Monthly family income was low but varied considerably ($M = \text{US}\$1,302$, $SD = \text{US}\$1,099$). Thirty percent of the mothers were married or living with a partner at the time of the study, with 23% single and the rest separated or divorced. Most (60%) had at least some education beyond high school. Mothers ranged in age from 21 years to 55 years ($M = 33.72$, $SD = 5.88$).

Procedures

Families were recruited with flyers and advertisements in five communities in Southeast Michigan. The flyers encouraged women who had experienced physical violence in an intimate relationship within the past year and who had children between the ages 6 and 12 to contact the project coordinator who explained the nature of the study. Recruitment took place within local domestic violence shelters as well as community centers, grocery stores, and religious institutions. It should be noted that only 4% of mothers were living in a shelter for abused women at the time of the study. Two others elected to enter a shelter following the intervention. Mothers were interviewed at baseline and after the 10-week program following participation in the intervention and were paid US\$20 each time. The present study sample consists of 180 children, 120 of whom participated in the intervention program and a comparison group of 60 families who were invited to receive the intervention at the end of the 10 weeks. Outcome variables did not differ at the start of the study for those who did and did not receive the intervention (Graham-Bermann et al., 2007). All women who contacted the study, regardless of qualification for intervention, were given referrals and provided with information about resources available for families exposed to IPV. A sequential random assignment procedure was used to assign mothers and children to groups. That is, the first seven families were assigned to the intervention condition, the next seven assigned to the wait list condition, and so on. All mothers and children were interviewed at baseline (before the intervention,

for those participating) and after 10 weeks for a follow-up interview. Attrition from baseline to postintervention was 18%, primarily from those in the nontreatment, comparison group.

Measures

Child exposure to IPV. In the efficacy study, mild and severe physical violence was assessed with the Conflict Tactics Scale (CTS; Straus, 1979), an 18-item measure of verbal reasoning, mild violence, and severe violence tactics in intimate partner relationships. This scale has been used extensively to assess the prevalence of IPV with established reliability ranging from .87 to .94 (Levendosky et al., 2004). Coefficient alpha of the CTS physical violence scale for this study was .84. To calculate the extent to which the child witnessed violence, mothers were asked to report the number of times each mild and severe physical violence tactic occurred during the past year and whether the child who participated in the study was eyewitness to those events. A total score of the child-witnessed IPV was created by summing the frequency of those items reported by the mother as directly observed by the child ($\alpha = .91$). Mothers were also asked to indicate the length of time in months that they have had IPV in their child's life.

Child behavior and adjustment problems. The Child Behavior Checklist (CBCL; Achenbach, 1991) has proven to be both valid and reliable in research with clinical populations (Achenbach & Edelbrock, 1993). Mothers completed this 113-item inventory using 3-point rating scales from 0 (*not true*) to 1 (*somewhat or sometimes true*) or 2 (*very true or often true*). Two scales represent broad areas of child adjustment: The Internalizing Scale consists of Anxiety/Depression, Withdrawal, and Somatic Complaints Syndrome subscales, whereas the Externalizing Scale consists of Aggression and Delinquency Syndrome subscales. Reported internal consistency for the Internalizing and Externalizing Scales was .89 and .93, respectively (Achenbach, 1991). In the present study, alpha was .91 and .93 for the summary scales, respectively. Change in Internalizing and Externalizing Scales was derived by subtracting the follow-up raw score from the raw baseline score, as recommended by Achenbach and Rescorla (2001).

Mothers' mental health and parenting. Depressive symptoms were assessed with the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The 21-item, self-report measure has been validated in studies comparing clinically depressed and nondepressed adults and by comparing BDI scores with psychiatrists ratings of depressed patients ($r = .77$), with

internal consistency reported as .86 (α ; Beck, et al., 1961; Bumberry, Oliver, & McClure, 1978). Mothers were asked to select among four statements for each item that indicated possible emotional states during the past week (scored 0 to 3). A total score consists of the sum of all responses and ranges from 0 to 63. Internal consistency for the present study was high ($\alpha = .92$).

The Anxiety and Parental Childrearing Styles Scale (Sameroff, Thomas, & Barrett, 1990) assesses parents' child-rearing styles along traditional dimensions, for example, effectiveness, warmth, child-centered, democracy, and guilt induction. The internal reliability of scales is reported as .66 to .74. This measure has been used to study parenting processes of women and children exposed to violence (Graham-Bermann et al., 2009; Levendosky & Graham-Bermann, 2001). The Effectiveness Scale measures the degree to which the parent believes it is important to control their child, to keep the child out of trouble, to influence the child to study, and to be respected by the child. Mothers were asked to respond to items having two polar choices that were then judged to be either *sort of true* or *really true*, resulting in a 4-point scale for each item. Alpha for the Effectiveness Scale in the present study was .84.

The Posttraumatic Stress Scale for Family Violence was created by Saunders (1994) to assess the current level of traumatic stress symptoms as assessed by women exposed to IPV. Each symptom is rated using an 8-point scale ranging from *never* to *more than 100 times* in the past year. A post-traumatic stress score is created by summing the scores for all items, with high scores revealing greater traumatic stress symptoms. In the Saunders study, scores ranged from 17 to 135 with a mean score of 70 ($SD = 32.6$). Reliability of the original study was .94. In the present study, alpha was .95. Change in mental health and parenting scores were calculated as the difference between the baseline score and the follow-up score.

Results

The types and frequency of violence tactics experienced by women within the year prior to their entering the study varied considerably. Mothers reported that they experienced mild physical violence approximately 20 times last year ($M = 19.72$, $SD = 33.01$), whereas severe physical violence in the home took place approximately 11 times in the last year ($M = 11.23$, $SD = 19.29$). Mothers also reported that their child witnessed mild physical violence 17.25 times in the last year ($SD = 31.97$) and witnessed severe violence 9.17 times in the last year ($SD = 18.06$). The average length of IPV in the family was 9.96 years but varied greatly ($SD = 5.34$).

Table 1. Baseline, Follow-Up, and Change in Mean Scores on Child Adjustment, Parenting and Mothers' Mental Health

Scale	Baseline		Follow-Up		Change	
	M	SD	M	SD	M	SD
CBCL internalizing	13.62	10.17	9.88	9.43	3.74***	6.73
CBCL externalizing	17.42	12.45	15.45	12.69	1.97**	7.58
Posttraumatic stress	67.18	33.22	45.14	24.61	22.04***	29.49
BDI	16.77	10.67	11.84	10.12	4.93***	9.15
Effective parenting	2.86	0.78	2.83	0.51	0.03	0.89

Note: CBCL = Child Behavior Checklist; BDI = Beck Depression Inventory.
Paired samples *t* test, ***p* < .01. ****p* < .001.

Change in Child Adjustment, Parenting, and Mothers' Mental Health

As shown in Table 1, there was significant change in the child outcomes of internalizing and externalizing behavioral adjustment problems over time for the whole sample (both treatment and comparison groups). Although significant change over time was evident in mothers' mental health, for example, in reduced depression and trauma symptoms, there was no significant change in parenting effectiveness. This variable was dropped from further analyses.

Predictors of Change in Child Outcome

To identify which factors explained significant variance in treatment efficacy, a series of stepwise regression analyses was undertaken. All appropriate regression variables were converted to *z* scores to reduce divergence in scale formats. Change in internalizing and externalizing behavior problems were the dependent variables. Two groups of independent predictors were examined controlling for the extent of participation in the intervention. The first group consisted of fixed factors of child age, gender, ethnicity, and years of violence exposure. The second group of predictors consisted of factors modified by the intervention. These were change in mothers' depression and change in posttraumatic stress symptoms.

Results of the regression analyses using the fixed and demographic variables predicting to change over time in child internalizing and externalizing behaviors are shown in Table 2. Child gender significantly predicted change in externalizing problems, with boys having slightly higher change scores

Table 2. Summary of Regression Analyses Using Demographic and Fixed Factors Predicting to Change in Internalizing and Externalizing Problems

Variable	Δ CBCL Internalizing				Δ CBCL Externalizing			
	β^a	R	R ²	F	β^a	R	R ²	F
Step 1		.173	.030	4.53*		.014	.000	.030
No. of intervention sessions		.173*				.014		
Step 2		.256	.065	1.99		.285	.081	2.50*
Intervention participation	.170*				.028			
Child age	.013				-.103			
Child sex	.064				-.208*			
Child ethnicity	.025				.070			
Exposure to violence	.172*				.159			

Note: CBCL = Child Behavior Checklist.

a. Standardized β .

* $p < .05$.

Table 3. Linear Regression Model Predicting to Internalizing Problems in Children Exposed to IPV ($n = 180$)

Predictor	R ²	Δ R ²	F Change	β		
				Step 1	Step 2	Step 3
1. No. of intervention sessions	.029	.029	4.46*	0.17*	0.16*	2.05***
2. Length of IPV	.064	.035	5.15***		0.19*	0.25**
3. Intervention participation \times Length of IPV	.153	.006	9.00***			1.92***

Note: IPV = intimate partner violence.

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

than girls. The only fixed factor to account for significant variation in change in internalizing problems was the length of time the child had been exposed to IPV. Here, greater IPV exposure was associated with greater change in internalizing behavior problems ($r = .198, p = .014$).

An analysis was performed to test whether the relationship between intervention participation (number of sessions attended) and change in internalizing problems was moderated by length of IPV exposure, as shown in Table 3. There was a significant moderating effect of the interaction of intervention participation by length of IPV exposure on change in internalizing problems.

Table 4. Summary of Regression Analyses Using Change in Mother's Mental Health to Predict Change in Internalizing and Externalizing Problems

Variable	Δ CBCL Internalizing				Δ CBCL Externalizing			
	β^a	R	R ²	F	β^a	R	R ²	F
Regression 1		.199	.040	3.63*	.138	.019	1.72	
No. of intervention sessions	.15*				.02			
Δ BDI	.12				.13			
Regression 2		.243	.059	5.43**	.082	.007	0.58	
No. of intervention sessions	.14*				.03			
Δ PTSS	.19*				.07			

Note: CBCL = Child Behavior Checklist; BDI = Beck Depression Inventory; PTSS = Posttraumatic Stress Scale.

a. Standardized β .

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

Those with more exposure to IPV had more change in internalizing problems, and this was augmented by greater participation in the intervention program.

Identifying Mediators of Change in Child Adjustment

To identify potential mediators of the relationship between the intervention and change in child outcomes, a second series of regression analyses was undertaken (see Table 4). Change in mother's depression and change in symptoms of posttraumatic stress were regressed individually on change in internalizing and externalizing behavior problems, controlling for intervention participation. Change in BDI scores was not a significant predictor, whereas change in symptoms of posttraumatic stress significantly predicted change in internalizing problems ($p = .009$).

A four-step procedure was followed next to test for mediation (Baron & Kenny, 1986). First, a significant relationship was established between intervention participation and change in child outcome (see Table 5). Then a significant association was shown between change in posttraumatic stress and change in internalizing problems. In the third step, both intervention and change in posttraumatic stress were entered. Mediation was found such that the intervention effect changed from significant to nonsignificant with the addition of change in posttraumatic stress. The fourth step tested the relationship between the intervention and the hypothesized mediator, change in posttraumatic stress, which was significant. Thus, findings indicate that when the

Table 5. Results of Mediation Analysis Predicting to Change in Child Internalizing Problems

Variable	CBCL Internalizing			
	β^a	<i>R</i>	<i>R</i> ²	<i>F</i>
Step 1		.161	.018	3.91*
No. of intervention sessions	.161*			
Step 2		.197	.039	7.00***
Change in PTSS	.197**			
Step 3		.243	.059	5.43***
No. of intervention sessions	.143			
Change in PTSS	.187**			

Note: CBCL = Child Behavior Checklist; PTSS = Posttraumatic Stress Scale.

a. Standardized β .

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

mother had significantly reduced symptoms of traumatic stress, there was an effect on reduced internalizing problems for her child, superseding the effect of the intervention on change for the child.

A post hoc analysis was undertaken to ascertain why participation was more successful for those who had greater IPV exposure. We tested whether those who dropped out earlier had less exposure to violence and found that the association between the number of sessions attended and the amount of violence witnessed was significant ($r = -.287, p = .001$). That is, those with less exposure to IPV attended more sessions.

Discussion

Few studies have looked at the ways in which factors such as frequency of intervention participation interact with fixed factors that mother and child bring to the intervention and factors that may vary as the result of intervention. We were able to test how multiple variables, identified in prior studies to be influential to child adjustment, interact with variables related to the therapeutic intervention. The program evaluated in the present study contributed to positive change in child outcome. Although fixed factors such as age and ethnicity did not predict change in child's adjustment, it was encouraging to discover that the dosage of the intervention or the number of sessions attended by the mother and by the child significantly predicted better child total adjustment. Notably, however, the relationship between

the amount of intervention participation and outcome was mediated and moderated by important factors. Specifically, the relationship between more frequent participation and greater reduction in internalizing problems for children was (a) greater when children were exposed to a greater proportion of violence in their lifetime and (b) accounted for by reduction in mother's symptoms of PTSD.

Other researchers have also shown that internalizing symptoms increase with exposure to IPV (Grych et al., 2002; Kitzman et al., 2003). The finding that the program was most successful for children exposed to a larger proportion of violence could indicate that there may have been greater levels of internalizing problems among these children and thus more room for improvement on the measure of internalizing problems.

Contrary to expectation, the hypothesis that change in parenting would be related to change for the child was not tested as an outcome, as no significant change over time was found in parenting from baseline to follow-up. Given that the parenting support program was directly focused on improving the mothers' parenting skills, inclusive of limit setting and implementing effective discipline strategies, an indirect effect of enhanced parenting may have been present through the extent of the mother's participation in the intervention program. Perhaps a more robust measure of parenting skill that assessed multiple domains might have been more useful in documenting these elements of parenting.

The hypothesis that change in maternal mental health would be associated with change for the child was partially supported. Depression and PTSD found in other studies of abused women also characterized the women in this study (Nixon et al., 2004). Although mother's mental health has been considered a key element in the functioning of children exposed to IPV (Cohen et al., 2000), change in mothers' depression was not significantly predictive of change in child outcome in this study, after the extent of participation in intervention program was taken into account. Although the mothers did significantly reduce their depression over time, it was the change in traumatic stress that was most associated with change in internalizing problems for the child. This is the first study to suggest a process of change by relating improvements in the mother to improvements in her child. Such a finding can contribute to future conceptualizations of intervention programs. These findings suggest that an emphasis on reducing PTSD symptomatology in the mother may not only improve her functioning but also significantly benefit her child.

The results of this study do not add much to the unresolved issues of whether change is distinguished by demographic variables specific to the child as no

significant effects were found for child age or ethnicity. The one exception is the finding that boys had slightly more change in externalizing behavior problems following intervention than did girls. This finding may be important as at least one study found that boys from violent families are the ones most at risk for becoming abusive as young adults (Cummings et al., 1999).

This leaves us with two important issues. The first is how to specialize treatment for children with more violence exposure, for these children attended fewer intervention sessions and received less benefit than children who had less violence exposure prior to the intervention. Alternatively, children who have more exposure to IPV may have benefited from the intervention in ways not measured by the instruments in this study. The second issue is whether the more sessions women are able and/or willing to attend, the more the symptoms of PTSD are addressed, which appeared to have an effect on the child's internalizing problems. Indeed, researchers have shown that children's reactions to events can be affected by their parent's response, and many studies have found that abused women are more likely to be depressed, anxious, and traumatized by their experiences (Ovara, McLeod, & Sharpe, 1996). It is also possible that women who are experiencing a greater reduction in symptoms of PTSD, and therefore, find the groups beneficial, attend more sessions. Greater session attendance may not only help to improve women's mental health but also may mean that the children are receiving more of their own treatment that likely leads to a reduction in internalizing symptoms.

The findings of the present study are limited to this sample of children and families—those who were interested in joining the evaluation study and seeking help for their children. These families were motivated to receive services and able to attend multiple sessions. The families also were nationally unrepresentative in terms of being low income and with a high percentage of ethnic minority families. These features limit the generalizability of results.

Future studies would do well to include a broader range of reporters when assessing child adjustment. The present study relied on mothers' self-report for most constructs but could have included more information from the child or from clinical interviews. In addition, the fact that the mother was the sole reporter of not only her own parenting and distress, which comes with potential bias in reporting, but also her child's adjustment is a limitation. The use of the more recent CTS-R would have been advantageous as well. Future work should consider ways to incorporate more observations of children's adjustment, including observations made by teachers and researchers. Given that many abused women remain in contact with the abuser, especially if that person is the child's parent, the parenting of the child's father may be a

substantial influence on child adjustment. Future efforts to describe the child's experiences and adjustment would do well to include the child's relationship with fathers and father-figures.

Clinical Implications

Although many communities may provide services for women and children exposed to IPV, a serious concern is whether the interventions employ evidence-based practices proven to be successful with this population. Our findings suggest that there may be something specifically important about attendance for the child that adds significantly to positive child adjustment. Yet barriers to program participation can include lack of transportation, illness, and employment, among other reasons. On a concrete level, providers might mandate or at least provide support for program attendance.

The results of the present study also suggest that children who have been exposed to violence over a greater proportion of their childhood are most at risk for adjustment problems. These children may need additional services beyond those provided by the intervention, such as individual treatment. We need to know more about whether a "one-size-fits-all" approach is preferable to programs designed for children with different traumatic experiences.

The findings also suggest that mother's level of PTSD should be identified early in treatment and that attention should be paid to providing women with opportunities to learn more about PTSD, normalize distress, and teach mindfulness exercises that reduce PTSD symptoms. Future developers of intervention programs can benefit from the knowledge that when working with children exposed to IPV, taking a systems approach to treatment may be most beneficial. Children not only improve from receiving individual care but also benefit from their caregiver, receiving mental health and support services.

In conclusion, we believe that it is possible to identify elements that contribute to success in intervention for children exposed to IPV and to use this evidence to improve programs designed for their needs. More strictly controlled studies are needed on factors that contribute to intervention success and on factors that enable providers to identify the most appropriate mode of intervention for a given family. By doing so, we can produce needed information to design better programs targeted for children with a range of problems following exposure to IPV.

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Bios

Sandra A. Graham-Bermann, PhD, is a professor of psychology and psychiatry at the University of Michigan, Ann Arbor. She studies contextual factors (including different forms of violence) that contribute to children's social and emotional dysfunction and competence and interventions designed to help them. She is particularly interested in outcomes related to trauma and resiliency. This work spans children of all ages and takes place in a variety of contexts such as preschools, community settings, and shelters for abused women. To study processes that mediate the link between children's reactions to violence and their adjustment, she developed new measures of children's fears and worries, attitudes and beliefs, traumatic stress, family stereotyping, and sibling relationships. She is consultant to national and international research agencies and domestic violence programs and Head Start schools.

Kathryn H. Howell, MS, is a doctoral candidate in clinical psychology at the University of Michigan, Ann Arbor. Prior to becoming a graduate student, she worked as a research assistant at the New York University Child Study Center for a longitudinal

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Michelle Lilly, PhD, is an assistant professor of psychology in the department of psychology at Northern Illinois University, DeKalb. For most of her research career, she has studied disadvantaged populations of women and children, particularly those suffering from traumatic stress and exposure to violence. She is particularly interested in the ways in which ethnicity and cultural identity affect coping with this form of severe stress. Her work challenges existing notions of trauma for various groups of women and clearly identifies factors that contribute to traumatic stress in women. She is author of more than 10 research papers in publication or under review and numerous research presentations at local, national, and international conferences.

Ellen DeVoe, PhD, is an assistant professor in the School of Social Work at Boston University. She studies the effects of violence exposure on children, domestic violence, sexual abuse, and research on interventions for families traumatized by violence. She obtained a grant to study the aftermath of 9/11 on children's mental health and adjustment as well as another grant to study urban preschool children exposed to domestic violence. Author of numerous articles describing results pertaining to children and help seeking following violence, she is also a regular presenter of her work. Most recent work concerns the SURVIVE community project to assess youth violence prevention.