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Beyond Deficits: Intimate Partner Violence, Maternal Parenting, and Child Behavior Over Time

Megan R. Greeson · Angie C. Kennedy · Deborah I. Bybee · Marisa Beeble · Adrienne E. Adams · Cris Sullivan

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Abstract Exposure to intimate partner violence (IPV) has negative consequences for children's well-being and behavior. Much of the research on parenting in the context of IPV has focused on whether and how IPV victimization may negatively shape maternal parenting, and how parenting may in turn negatively influence child behavior, resulting in a deficit model of mothering in the context of IPV. However, extant research has yet to untangle the interrelationships among the constructs and test whether the negative effects of IPV on child behavior are indeed attributable to IPV affecting mothers' parenting. The current study employed path analysis to examine the relationships among IPV, mothers' parenting practices, and their children's externalizing behaviors over three waves of data collection among a sample of 160 women with physically abusive partners. Findings indicate that women who reported higher levels of IPV also reported higher levels of behavior problems in their children at the next time point. When parenting practices were examined individually as mediators of the relationship between IPV

and child behavior over time, one type of parenting was significant relationship, such that IPV lead to higher authoritative parenting and lower child behavior problems. On the other hand, there was no evidence that higher levels of IPV contributed to more child behavior problems due to maternal parenting. Instead, IPV had a significant cumulative indirect effect on child behavior via the stability of both IPV and behavior over time. Implications for promoting women's and children's well-being in the context of IPV are discussed.

Keywords Intimate partner violence · Externalizing behavior · Parenting styles · Longitudinal path analysis · Longitudinal indirect effects

Introduction

Intimate partner violence (IPV) is a serious, widespread problem affecting millions of women and children, with an estimated 1 in 320 U.S. households affected (Black et al. 2011; Klaus 2007). Although many couples engage in mutual or low-level violence that does not alter the power dynamics within their relationship, the larger social problem of "battering" includes a pattern of behavior, generally committed by men against women, that perpetrators use to gain an advantage of power and control over their victims (Bancroft 2002; Johnson 1995; Stark 2007). Such behavior includes physical violence and the threat of continued violence, but also includes psychological torment designed to instill fear or confusion in the victim, and to make her question her abilities. The pattern of abuse also often includes sexual coercion, economic abuse, coerced or forced illegal activity, coerced or forced substance use, social isolation, and threats or violence against loved ones

M. R. Greeson (⊠)

Department of Psychology, DePaul University, 562 Byrne Hall, 2219 North Kenmore Ave., Chicago, IL 60614, USA e-mail: mgreeson@depaul.edu

A. C. Kennedy

School of Social Work, Michigan State University (MSU), East Lansing, MI, USA

D. I. Bybee \cdot A. E. Adams \cdot C. Sullivan Department of Psychology, MSU, East Lansing, MI, USA

M. Beeble

Department of Interdisciplinary Studies, The Sage Colleges, Albany, NY, USA

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(Adams et al. 2008; Bancroft 2002; Black et al. 2011; Pence and Paymar 1993).

Because men in homes with young children are disproportionately likely to perpetrate IPV, it is quite common for children to be exposed to violence in the home, either by directly witnessing the violence, or through witnessing effects of the abuse after an assault is over (e.g., seeing injuries, witnessing crying; Catalano et al. 2009; Kitzmann et al. 2003; McDonald et al. 2006). Exposure to parental violence negatively influences children by increasing their feelings of fear, threat, and self-blame, as well as their difficulty with affect regulation, which in turn are associated with heightened risk of mental health and behavioral problems (Davies and Cummings 1994; DeBoard-Lucas and Grych 2011; Grych et al. 2000; Knous-Westfall et al. 2012; Spilsbury et al. 2007).

These negative outcomes may continue to shape youths' development over time, in part by sensitizing them to future conflict and violence (Grych and Fincham 1990). Yates et al. (2003) prospective longitudinal study of 155 low-income families found that preschool exposure to IPV was the strongest predictor of the children's externalizing problems at age 16, after controlling for a variety of other factors including exposure during middle childhood. It should be noted, however, that there is substantial heterogeneity in child outcomes, based in part on protective factors such as the child's level of social support, coping efficacy, and relationships with others, particularly primary caregivers (Fosco et al. 2007; Kennedy et al. 2010).

The relationship between the primary caregiver and child has received considerable scholarly scrutiny. From an ecological developmental perspective, the dynamic patterns of roles and relationships that occur within the family system are fundamentally important in shaping a child development. These relationships are conceptualized as mutually influential, with the parent(s) shaping the child and vice versa; multiple intra- and extra-familial factors are understood to further contribute to the child's development either directly or indirectly via influence on the primary caregiver (Bronfenbrenner 1979). Belsky's (1984) model builds on this foundation and highlights the interrelationships among the parent's characteristics (e.g., developmental history, psychological attributes), her or his contextual sources of stress and support, and the child's contribution (e.g., temperament) in determining parenting.

While these ecological approaches help us appreciate the contextualized nature of parenting, Baumrind's (1971) work has established the importance of examining styles or types of parenting along a variety of dimensions, such as acceptance/warmth and authority/strictness. The authoritative style (high acceptance and authority) has been found to be associated with the best child outcomes across race/ethnicity, socioeconomic status, and family structure, in a

variety of areas including mental health and self-esteem, problem behavior, and academics. Conversely, authoritarian (low acceptance and high authority), indulgent permissive (high acceptance and low authority), and neglectful permissive (low acceptance and low authority) parenting styles have been linked to poorer outcomes for children (Darling and Steinberg 1993; Lamborn et al. 1991; Parent et al. 2011; Querido et al. 2002; Steinberg et al. 1991).

Researchers examining parenting—almost exclusively mothering-in the context of IPV have generally focused on how IPV negatively shapes different aspects of maternal parenting, and how parenting may in turn negatively influence child behavior, representing a deficit model of mothering in the context of IPV (Lapierre 2008). Several recent studies have found that IPV is positively associated with such aspects as maternal parenting stress and low relatedness quality, which are positively related to child adjustment problems (English et al. 2003; Huth-Bocks and Hughes 2008; Owen et al. 2009). Levendosky and colleagues (2000, 2001, 2003) have explored the relationships between IPV, negative parenting, and child outcomes within an ecological framework. Their work indicates that multiple factors influence parenting, including maternal psychological functioning, social support, and life stress as well as IPV, with aspects of parenting such as parental effectiveness positively associated with maternal psychological functioning, and negatively associated with child externalizing behavior (Levendosky et al. 2003).

Notably, research by Levendosky et al. (2003) has also produced some unexpected findings. They found that IPV was positively associated with mother-child attachment as well as parenting effectiveness, suggesting that mothers may positively compensate in order to overcome the effects of IPV on their children. Rossman and Rea's (2005) longitudinal study of maternal parenting and child outcomes within the context of IPV, recruited from both domestic violence shelters and the community, sheds light on this finding. Using cluster analysis, they found great variability in parenting styles among participants, with one of the four cluster profiles characterized by high levels of both authoritative and permissive parenting practices. This suggests that mothers may employ a combination of disparate approaches in their efforts to be good parents despite the influence of challenging circumstances. Finally, Levendosky and Graham-Bermann (2000) found that child behavior was a significant predictor of parenting, such that child antisocial behavior was inversely related to maternal authority-control. This study was one of the few to date to examine child behavior as a predictor of parenting within families in which IPV has been perpetrated (see also Sullivan et al. 2000), despite the influence of Bronfenbrenner's (1979) conceptualization of the caregiver-child relationship as a mutually influential one, and the inclusion of the role



of child characteristics as a predictor of parenting in Belsky's (1984) model.

Though very little empirical work has been done on mutual parent-child influences within the realm of families in which men have abused their intimate partners, researchers focusing on youth behavior problems and delinquency have begun to examine the issue longitudinally (see Pardini 2008, for a review). In an early study, Stice and Barrera (1995) followed early adolescents and their parents over a year and found that child externalizing problems predicted decreased parental control and support, though parenting did not predict externalizing problems. More recent findings have been reported among both female and male youths in middle childhood and early adolescence: Externalizing and conduct problems among girls between the ages of 7-15 have been found to predict declining parental control and support (Huh et al. 2006) as well as increased harsh punishment over time (Hipwell et al. 2008). Among similarly-aged boys, oppositional defiant disorder is a significant predictor of increased timid discipline and poorer parent-child communication, and decreased parental involvement over time (Burke et al. 2008), while conduct problems predict increased poor and timid parenting, and decreased parental monitoring and positive reinforcement over time (Pardini et al. 2008). Collectively, these findings highlight the importance of examining the role of child behavior in shaping parenting practices over time.

Based on this past research, it is clear that exposure to IPV is associated with negative outcomes for children, including externalizing behavior problems. Findings regarding the influence of IPV on maternal parenting are somewhat murkier; however, IPV has been linked to mothers' parenting practices and parenting related constructs (e.g., parenting stress), which in turn may influence child outcomes. While some prior work has presumed that IPV leads to poorer parenting and therefore has a negative impact on children, it remains to be seen whether the relationship between IPV and children's behavior problems is accounted for by IPV having a detrimental impact on maternal parenting practices.

Therefore, the current longitudinal study examined the interrelationships among mothers' experiences of IPV, maternal parenting practices, and child externalizing behaviors within a sample of 160 mothers and their children aged three to 13, interviewed three times over the course of 8 months. This study is informed by prior research on IPV, maternal parenting, and child outcomes. The current study builds upon Levendosky and colleagues (2000, 2001, 2003) work on the relationships among intimate partner violence, child behavior, and maternal parenting. While their research has helped to establish the

complex relationships among these constructs, the question still remains as to whether IPV has a negative effect on children's behavior due to IPV having an influence on maternal parenting practices. Therefore, the current study examined whether maternal parenting (or other mechanisms) mediate the relationship between IPV and child behavior. The current study also builds from Levendosky and colleagues (2000, 2001, 2003) research, which was cross-sectional, by examining the relationships among these constructs over time. More specifically, by using a longitudinal design, the current study is able to examine not only the cross-sectional relationships between the variables of interest, but also whether a variable at one time point affects another variable over time (e.g., does IPV affect child behavior over time? does maternal parenting affect child behavior over time?).

Similar longitudinal work was conducted in a preliminary study by Sullivan et al. (2000). The study also examined the longitudinal relationships among IPV, child behavior, maternal parenting stress, and maternal disciplinary practices. In the earlier pilot study of 80 women and their seven to 11 year old children, assailant's abuse of the mother was positively associated with children's behaviors problems at baseline. At both baseline and the follow-up time point, abuse had an indirect (within-time) effect on mother's parenting stress, via children's behavior problems. However, mother's parenting stress and assailant's abuse did not have a direct impact on their parenting practices. In an extension of this line of research, the current study focuses on examining whether the relationship between mothers' experience of IPV and children's externalizing behavior is mediated by mothers' authoritarian, authoritative, and permissive parenting practices. The current study extends beyond the prior study by Sullivan et al. (2000) by studying a larger sample of 160 mothers and their children; examining the impact of new parenting practices; studying three (as opposed to two) time points; and asking new longitudinal questions regarding the relationships among abuse, parenting, and children's behavior over time. Specifically, the study addresses the following research questions:

- Does maternal IPV victimization predict child externalizing behavior and maternal parenting practices over time?
- 2. Do mothers' parenting practices predict child externalizing behavior over time?
- 3. Do child externalizing behaviors predict mothers' parenting practices over time?
- 4. Do parenting practices mediate the relationship between IPV and children's externalizing behavior over time?



Methods

Participants

This study investigated the lives of 160 female survivors of IPV three times over the course of 8 months. All participants resided in a mid-sized Midwestern city. Study eligibility criteria were: (1) all women had been assaulted by an intimate partner or ex-partner within the 4 months prior to their study involvement, (2) women had to agree to be randomly assigned to either an experimental, advocacy condition or to a control group that received "services as usual," and (3) women had to have at least one child under the age of 13 living with them who was also interested in participating in the larger study. The study investigated women's reports of IPV, their self-reported parenting practices about one child (who was randomly selected from their family during the interview process; i.e., the target child), as well as their assessment of this child's problem behaviors.

At the time of the initial interview (T1), women ranged from 21 to 49 years of age (M = 32.10; SD = 6.09). Nearly half of the women identified as non-Hispanic White (n = 64, 46 %), more than one-third as African American (n = 49; 36 %), and the remaining women as multiracial (n = 11; 8%), Hispanic/Latina (n = 10; 7%), Native American (n = 2; 1 %), or Sudanese (n = 1; < 1 %); one woman did not disclose her racial/ethnic identity (< 1 %). Slightly over half of the women (n = 87; 54 %) reported being employed at T1, and adjusted monthly income (i.e., income adjusted by the number of individuals the income supported) ranged from \$74 to \$483 with M = \$426 and SD = \$240. Two-thirds of this sample (n = 106; 66 %)received some form of government assistance (e.g., food stamps, welfare, SSI/SSD). Educational levels varied greatly. Nearly 21 % of women (n = 33) had not yet completed high school; 28 % (n = 45) had completed high school or trade school; 39 % (n = 63) had attended college, but had not yet attained a degree; and the remaining 12 % (n = 19) had earned an associate's or bachelor's degree.

The total number of children per family ranged from one to eight $(M=3.15;\ SD=1.48);\ across all\ 160$ women there were 505 children. Most women $(n=107;\ 66\ \%)$ had full custody of their children, and for others, arrangements varied (e.g., joint custody with another parent, temporary custody). The majority of children lived with their mothers $(n=435;\ 86\ \%)$ at T1. The 160 target children (i.e., those children that were randomly selected to be the focus of specific questions asked of women regarding parenting practices and problematic child behavior) ranged in age from 3 to 13 $(M=8.41;\ SD=2.35)$. Forty-two percent were assigned to the

intervention condition, while 58 % of the sample comprised the control group.

Procedures

Women were recruited from multiple sources in the community: an agency providing support to survivors following a recent police response to IPV (n = 67, 42%), two domestic violence programs providing residential and nonresidential services to women and their children (n = 51; 32 %), and the county prosecutor's personal protection order office (n = 42; 26 %). Initial T1 interviews were conducted with each woman within 2-3 weeks following recruitment. Women recruited from residential shelter programs (n = 40; 25 %) were not interviewed until they had exited the shelter; however, all had exited shelter programs within 1 week of being recruited and T1 interviews occurred within the subsequent two to three weeks. Subsequent interviews occurred every 4 months after the T1, baseline interview. Retention rates for the two follow-up time points [Time 2 (T2) and Time 3 (T3)] were 84.4 and 86.3 %, respectively. All interviews were administered face-to-face in a safe, private location chosen by each woman. Interviews were audio-taped, and ranged from 31 min to 6.5 h across all time points. Women received \$20 for the T1 interview, and \$60, then \$70 for each subsequent interview.

Measures

IPV

IPV was measured using a 24-item, modified version of the Conflict Tactics Scale (CTS; Straus 1979). Participants reported the frequency with which they had experienced various forms of physical abuse by their partners in the 4 months prior to each interview (e.g., being pushed or shoved, being chocked or strangled, being hit with an object, being forced to engage in sexual activity). Reponses were coded on a seven-point Likert-type scale, with scores ranging from 1 (*never*) to 7 (*more than four times a week*). Items were averaged to produce scale scores. Cronbach's alpha across all time points ranged from .91 to .95.

Parenting

Women's parenting practices were assessed using the Parenting Practices Questionnaire for Adults (PPQ; Robinson et al. 1995). This measure's three scales assessed the extent to which women engaged in *authoritative parenting* ($\alpha = .84$ to .86), *authoritarian parenting* ($\alpha = .73$ to .82), and *permissive parenting* ($\alpha = .76$ to .80) at the time of the interviews. Women were asked specifically about the



parenting practices used with the target child. The authoritative parenting scale contained 16 items (e.g., "I am aware of problems or concerns about ____ in school"; "I give comfort and understanding when ___ in upset"). Authoritarian parenting was assessed with 13 items, including "I yell or shout when ___ misbehaves"; and "I use physical punishment as a way of disciplining ___." The permissive parenting scale included 9 items (e.g., "I give into ___ when he/she causes a commotion about something"; "I find it difficult to discipline ___"). Scoring across all subscales involved averaging items.

Child Behavior

Mothers' reports of childhood externalizing behaviors were assessed using the Eyberg Child Behavior Inventory (Robinson et al. 1980). This 36-item parent-report measured the frequency with which the target child engaged in problem behaviors (e.g., hitting his/her parents, yelling or screaming, having temper tantrums, destroying toys or other objects) at the time of the interviews. Mothers responded on a seven-point scale, ranging from *never* (1) to *always* (7). Cronbach's alpha ranged from .93 to .95 over time. Scale scores were computed by averaging items.

Intervention Condition

Intervention condition was 0 = control group and 1 = condition.

Data Analysis

Bivariate correlations were examined among all variables using SPSS. Then, path analysis was conducted using Mplus software (Muthén and Muthén 2010) to explore the longitudinal relationships among IPV; child behavior; and authoritative, authoritarian, and permissive parenting across all three time points. Although missing data was minimal across all time points (10.47 % of the data matrix), the expectation–maximization algorithm (EM) in SPSS was used to impute missing values. This method of imputing missing data is preferable to other methods (e.g., pairwise deletion and listwise deletion) that introduce bias into the data (Schafer and Graham 2002).

To assess how IPV affects women's parenting practices and child behavior over time, an auto-regressive cross-lagged path model was tested. Lagged relationships refer to relationships in which one variable is modeled as a predictor of another variable at a later time point. The direct, lagged relationships that were modeled included: (a) IPV as a predictor of each of the three parenting practices at the next time point. Additionally, to explore

whether women's parenting practices and children's externalizing behaviors influence each other over time, the following direct effects were modeled: (a) child behavior as a predictor of each of the three parenting practices at the next time point and (b) each parenting practice as predictors of child behavior at the next time point. Within-time correlations at each time point were accounted for, as were autoregressive relationships across time points. This enabled the model to capture change the longitudinal relationships of interest (e.g., after controlling for T1 child behavior, does T1 IPV have an effect on T2 child behavior?). To account for the effects of the intervention, intervention condition was correlated with all T1 variables and was modeled as a predictor of all T2 and T3 variables.

To examine parenting as a potential mediator of the effects of mother's IPV victimization on child externalizing behavior, a series of individual and grouped indirect effects were tested. Indirect effects are statistical analyses used to test potentially mediating relationships (is there an independent effect of X on Y via M?).² Specifically, indirect tests were conducted to examine whether the influence of T1 IPV on T3 children's behavior was mediated by T2 maternal parenting practices (vs. other mechanisms such as stability in abuse and stability in children's behavior).³ Bias-corrected bootstrapping was employed for all tests of indirect effects. This approach, using both individual and grouped indirect effects, has been recommended for testing mediation within longitudinal designs by Selig and Preacher (2009).

Results

Descriptives

Not surprisingly given the study design, women on average reported the highest levels of IPV at T1 (M = 1.78), with lower levels at subsequent time points (T2 M = 1.20;

³ The mediational criterion of temporal order was met, as the independent variable was measured at T1 (IPV), potential mediators at T2, and the dependent variable at T3 (children's behavior).



Tapitalization on chance is a potential issue within complex SEM models. However a Bonferroni (or similar) correction was not used in the current study. The paths that were tested were theoretically driven; many paths that could have been tested were not tested. 47 directional paths were tested (not including the paths involving the control variable). In such a model, only 2.4 significant paths would be expected by chance alone (and 27 were actually significant). A Bonferroni correction would increase the likelihood of Type II error in the current sample size, and therefore the current approach is preferable.

² Evidence of an indirect effect supports the idea of a mediational relationship. However, other characteristics must also be present (e.g., temporal precedence), to fully meet the criteria of mediation.

T3 M=1.20). Children's average level of externalizing behaviors was also highest at T1 (M=3.19) and lower at subsequent time points (T2 M=3.02; T3 M=2.85). On the other hand, average levels of parenting styles were fairly stable across all time points, with higher levels of authoritative parenting (range of M's = 3.95–4.02), and more moderate levels of authoritarian (range of M's = 2.14–2.25) and permissive parenting (range of M's = 2.01–2.08). Child age and child gender were considered for inclusion in the model as potential covariates. However, neither variables was significantly correlated with any of the other variables in the model. Therefore, they were dropped from the analyses. Means and standard deviations for modeled variables are provided in Table 1.

Time One Correlations

Bivariate correlations among all variables at T1-T3 were examined in SPSS. Results are found in Table 1. At T1, mothers' intimate partner victimization was neither associated with maternal parenting nor with the children's externalizing behaviors. Specifically, the within-time correlations between IPV and authoritative parenting (r = .13, n.s.), authoritarian parenting (r = .03, n.s.), permissive parenting (r = -.06, n.s.), and externalizing behavior (r = -.11, n.s.) were not statistically significant. Mothers' parenting practices were associated at T1, such that authoritarian and permissive parenting were positively correlated with one another (r = .55, p < .01), but were negatively correlated with authoritative

(r=-.33, p<.01) and r=-.37, p<.01 respectively). Parenting was also related to children's externalizing behaviors at T1. Women who engaged in higher levels of authoritative parenting reported fewer behavior problems in their children (r=-.34, p<.01), while higher levels of authoritarian and permissive parenting were associated with more externalizing behaviors (r=.48, p<.01) and r=.52, p<.01 respectively). Finally, intervention condition was not correlated with T1 physical abuse (r=.05), externalizing behavior (r=-.03), permissive parenting (r=.03), authoritarian parenting, (r=-.02), or authoritative parenting (r=-.02).

Modeled Direct Time-Lagged Longitudinal Relationships

A path model was tested in MPLUS to examine the relationships among the variables of interest over time after controlling for intervention condition and all within time correlations. IPV was modeled as a time-lagged predictor of the three maternal parenting styles and child behavior at the next time point, controlling for prior values of these variables (e.g., T1 IPV predicted T2 authoritative parenting, controlling for T1 authoritative parenting; T2 IPV predicted T3 authoritative parenting controlling for T1 and T2 authoritative parenting, etc.). Additionally, each parenting style was modeled as a lagged predictor of child behavior at the next time point, and in turn, child behavior was modeled as a predictor of all three maternal parenting styles at the next time point. In order to account for

Table 1 Descriptives and bivariate correlations among IPV, maternal parenting, and child externalizing behavior over time

	М	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Condition	.42	.49															
2. T1 IPV	1.78	.66	.05														
3. T1 AT	4.01	.52	02	.13													
4. T1 AR	2.25	.51	02	.03	33												
5. T1 PM	2.08	.56	.03	06	37	.55											
6. T1 ECBI	3.19	.99	03	11	34	.48	.52										
7. T2 IPV	1.20	.32	11	.42	04	.05	.10	.06									
8. T2 AT	4.02	.56	10	.22	.63	20	33	19	.02								
9. T2 AR	2.14	.62	03	.10	36	.57	.40	.33	.10	16							
10. T2 PM	2.01	.61	17	08	21	.28	.52	.40	.13	21	.50						
11. T2 ECBI	3.02	1.12	07	.05	21	.26	.33	.65	.09	09	.37	.52					
12. T3 IPV	1.20	.52	04	.36	.11	.04	04	.00	.45	.26	.03	.10	.35				
13. T3 AT	3.95	.57	.06	.15	.53	14	29	11	.06	.49	22	23	14	.11			
14. T3 AR	2.17	.56	05	.02	32	.67	.39	.35	.06	34	.56	.28	.29	.17	15		
15. T3 PM	2.02	.51	.03	.04	31	.35	.67	.43	.16	30	.41	.66	.46	.06	32	.47	
16. T3 ECBI	2.85	.91	.01	.07	26	.47	.51	.66	.20	28	.40	.44	.67	.19	02	.46	.49

Condition: 0 = control group, 1 = experimental group; IPV = mother's intimate partner victimization; AT = mother's authoritative parenting; AR = authoritarian parenting; PM = permissive parenting; ECBI = externalizing behaviors. Bold/Italicized = significant at p < .05



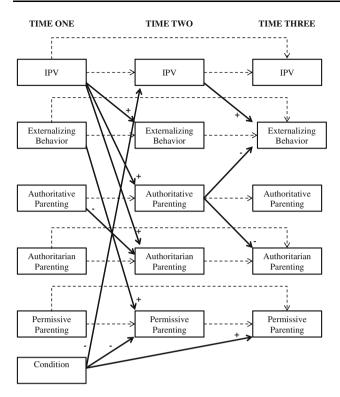


Fig. 1 Results of final path model: the relationships between maternal exposure to IPV, maternal parenting practices and child externalizing behaviors over time. The model shows all significant directional relationships at p < .05. Auto-regressive relationships (i.e., a variable predicted by itself at a prior time point) were all positive and are presented by *dashed lines*. Within time correlations are not pictured. *IPV* mothers' intimate partner victimization

stability in the variables of interest over time, all autoregressive paths were modeled, meaning that a variable at a follow-up time point was predicted by the same variable at all previous time points (e.g., T3 IPV was predicted by T1 and T2 IPV; T2 IPV was predicted by T1 IPV). This allowed the model to capture longitudinal relationships between the variables of interest over time. In addition, the model controlled for all possible within-time correlations. Finally, intervention condition was controlled for by modeling it as a covariate of all T1 variables and a predictor of all T2 and T3 variables.

The final model exhibited adequate fit, given the sample size ($\chi^2 = 101.24(28)$, p < .01; CFI = .930; SRMR = .049). Estimates were tested using bias-corrected bootstrapped standard errors. All statistically significant over-time relationships are presented in Fig. 1. All autoregressive relationships with the exception of one were positive and statistically significant; these results indicated that, generally, scores on a variable at a follow-up time point were in part due to prior scores on the same variable. Condition was significantly related to permissive parenting at T2 and T3 (b = -.22, p < .01; b = .10, p < .05, respectively) and physical abuse at T2 (b = -.09,

p < .05). Condition was not a significant predictor of any of the other T2 or T3 variables.

Effects of IPV on Subsequent Parenting and Child Behavior

To examine the effect of IPV on maternal parenting and child behavior over time. IPV was modeled as a timelagged predictor of each of the three parenting styles, as well as children's externalizing behavior at the next time point. After controlling for other modeled relationships, IPV victimization at T1 was positively associated with both authoritarian and authoritative parenting at T2 such that higher levels of IPV were associated with more authoritarian and more authoritative parenting at T2 (b = .12, p < .05 and b = .13, p < .05, respectively).However, T1 IPV was not related to permissive parenting at T2 (b = -.02, n.s.). Additionally, T2 IPV was not significantly associated with any of three types of parenting at T3 (authoritarian, b = .02, n.s.; authoritative, b = .15, n.s.; permissive, b = .11, n.s.). Even after controlling for stability in IPV and child behavior, prior IPV was related to children's subsequent behavioral problems, with women who experienced higher levels of IPV typically reporting more externalizing behaviors in their children at the next time point (T1 IPV to T2 externalizing, b = .23, p < .05; T2 IPV to T3 externalizing, b = .39, p < .01).

Predictive Relationships Between Parenting and Children's Behavior

The current study examined the time-lagged relationships between parenting and child behavior by modeling parenting as a predictor of child behavior at the next time point, and child behavior as a predictor of maternal parenting at the next time point. Overall, there were six ways that parenting was modeled as predictive of child behavior at the next time point (three types of T1 parenting to T2 behavior, three types of T2 parenting to T3 behavior). After accounting for the correlations between parenting and child behavior at T1 and stability in parenting and child behavior over time, only one of these relationships was statistically significant. Specifically, T2 authoritative parenting was a significant predictor of T3 externalizing behaviors, such that more authoritative parenting was associated with fewer externalizing behaviors at T3 (b = -.26, p < .01). There were no other statistically significant relationships in which parenting predicted children's behavior at the next time point.

There were also six ways in which child behavior was modeled as a predictor of maternal parenting at the next time point (T1 behavior to three types of T2 parenting, T2 behavior to three types of T3 parenting). Children's



externalizing behavior at T1 was positively associated with permissive parenting at T2, such that more externalizing behavior was associated with more permissive parenting at the next time point (b = .11, p < .05). After accounting for other modeled relationships, there were no other statistically significant relationships in which prior child behavior predicted women's subsequent parenting. There were also twelve predictive relationships modeled in which one type of parenting practices was predictive of another type at the next time point, two of which were statistically significant. After controlling for other modeled relationships, prior authoritative parenting was negatively associated with subsequent authoritarian parenting, after controlling for other modeled relationships (T1 authoritative to T2 authoritarian b = -.22, p < .01; T2 to T3 b = -.28, p < .01).

Indirect Effects of IPV on Children's Behavior

To further understand the relationships between IPV, maternal parenting practices, and children's externalizing behaviors over time, indirect effects were tested. Testing an indirect effect analyzes whether one variable influences another via another variable (i.e., does X have an effect on Y via M?). In this case, the indirect effects were tested to assess whether maternal parenting were mediators of the effects of IPV on children's externalizing behavior over time. To assess whether maternal parenting was a mediator, indirect effects were tested for each of the three pathways in the model that connected T1 IPV to T3 children's behavior, via T2 parenting (one for each type of T2 parenting; see below for details). Rather than simply testing maternal parenting as a mediator(s), the current study also examined whether other alternative mechanisms could have mediated this relationship. In this vein, indirect effects of pathways in the model that connected T1 IPV to T3 children's behavior via non-parenting T2 variables (T2 externalizing behaviors and T2 abuse) were tested. This tested whether other mechanisms besides parenting—specifically, stability in abuse and behavior over timeaccounted for the relationship between T1 IPV and T3 child behavior. First, we will present the results related to maternal parenting as a mediator, then the results related to alternative mechanisms (i.e., stability in abuse and behavior) as mediators. The results of the analyses are presented in Table 2.

There were three individual pathways in which T1 IPV could indirectly affect T3 children's behavior via T2 parenting as a mediator (one pathway each for authoritarian, authoritative, and permissive parenting). These are found in Table 2 under the heading "IPV influences parenting, which influences child behavior" pathways. In the test of the individual indirect effects testing each of these

Table 2 Unstandardized indirect effects from T1 IPV to T3 child externalizing behavior

Pathways from T1 IPV to T3 behavior	В	p	95 % CI
"IPV influences parenting, which influences child behavior" pathways			
T1 IPV \rightarrow T2 AT \rightarrow T3 ECBI ^a	034	<i>p</i> < .05	082,006
T1 IPV \rightarrow T2 AR \rightarrow T3 ECBI ^b	.019	n.s.	001, .078
T1 IPV \rightarrow T2 PM \rightarrow T3 ECBI ^c	.000	n.s.	023, .015
Grouped effect of "IPV influences parenting, which influences children's behavior" pathways ¹	015	n.s.	073, .037
"No influence of parenting" pathways			
T1 IPV \rightarrow T2 IPV \rightarrow T3 ECBI ^d	.081	<i>p</i> < .01	.020, .185
T1 IPV \rightarrow T2 ECBI \rightarrow T3 ECBI ^e	.072	<i>p</i> < .05	.008, .188
Grouped effect of "No influence of parenting" pathways ²	.153	p < .01	.063, .301

Estimates are unstandardized

IPV mother's intimate partner victimization, *AT* mother's authoritative parenting, *AR* authoritarian parenting, *PM* permissive parenting, *ECBI* externalizing behaviors

- ¹ Paths a, b, and c tested together as a combined set of mediators
- ² Paths d and e tested together as a combined set of mediators

pathways, only one of the three was statistically significant. Specifically, T1 IPV had an indirect effect on T3 behavior problems via T2 authoritative parenting. Higher T1 IPV was associated with higher T2 authoritative parenting, which in turn was associated with *fewer* T3 behavior problems (b = -.03, p < .05). The other pathways were not significant, meaning that T1 IPV did not have an indirect effect on T3 behavior via authoritarian or permissive parenting (b = .02, n.s. and b = .00, n.s., respectively).

While this tested each type of parenting practice individually, the current study also sought to address a more global question: taken *together*, do parenting practices as a set mediate the relationship between T1 IPV and T3 children's externalizing behavior? According to Selig and Preacher (2009), conceptually similar pathways can be combined and tested as a *grouped* indirect effect of an independent variable on a dependent variable (Selig and Preacher 2009). Therefore, a grouped indirect effect was tested to examine whether, as a set, the three parenting practices mediated the relationship between T1 IPV and T3 child behavior. The test of this grouped indirect effect was non-significant (b = -.02, n.s.). Thus, T1 IPV does not have a significant cumulative indirect effect on T3 children's externalizing behavior via the three forms of T2



maternal parenting combined. In other words, T2 parenting practices, when combined to capture parenting globally, do not contribute to a relationship between T1 IPV and T3 child behavior. Therefore, such a relationship must be created via other mechanisms. Presumably, this occurs because of the opposing forces found in the model—IPV had a positive influence on authoritative parenting, which is related to *less* externalizing behavior, but IPV also had a positive influence on authoritarian parenting, which is related to *more* externalizing behavior. This likely explains why the combined influence of all three types of parenting practices yields no statistically significant contribution of T2 parenting to a relationship between T1 IPV and T3 behavior.

In addition to assessing parenting practices as a mediator of the relationship between T1 IPV and T3 children's behavior, the current study also sought to examine whether other mechanisms might account for such a relationship. Therefore, we examined pathways in the model that connected T1 IPV to T3 children's behavior via non-parenting T2 variables (specifically, T2 externalizing behaviors and T2 abuse). This tested whether other mechanisms—specifically, stability in abuse and behavior over time—contributed to a relationship between T1 IPV and T3 child behavior. The results of these individual indirect effect analyses are presented in Table 2 under the heading of "no influence of parenting" pathways. Both of these "no influence of parenting" pathways were statistically significant: T1 IPV victimization had a positive indirect effect on children's T3 behavior through T2 IPV (b = .08, p < .01) and T1 IPV had an indirect effect on T3 behavior through T2 behavior (b = .07, p < .05). In other words, there was an indirect effect of T1 IPV on T3 behavior due to stability in IPV and stability in behavior. Similar to our analyses of parenting practices as mediators, these pathways were also tested in a grouped indirect effect. When combined, do the non-parenting T2 variables contribute to a relationship between T1 IPV and T3 children's behavior? This grouped effect of the "no influence of parenting" pathways was significant, indicating that T1 IPV has a cumulative indirect effect on T3 children's externalizing behavior, bypassing T2 maternal parenting (due to stability in abuse and behavior over time; b = .15, p < .01).

Discussion

This study investigated the relationships among maternal IPV victimization, child externalizing behavior, and mothers' parenting practices across three time points within a sample of women who had been physically abused. The first key finding was that the children of women who experienced higher rates of IPV at one time

point tended to exhibit more externalizing behaviors at the next time point. Such a relationship might be expected, as women with higher rates of IPV victimization at one time point tended to also experience higher rates of IPV 4 months later, and it might be this later violence that influences children's behavior. However, after controlling for such a possibility, the current study revealed that, over and above this effect, men's violence against their partners had an *additional* deleterious effect on children's behavior 4 months later. This is consistent with prior research that has shown that assailants' use of violence against mothers is associated with negative outcomes for their children (Davies and Cummings 1994; DeBoard-Lucas and Grych 2011; Grych et al. 2000; Knous-Westfall et al. 2012; Spilsbury et al. 2007).

The second set of findings pertained to the lagged relationships between women's experiences of IPV and their parenting practices 4 months later. The only lagged effects of IPV on women's parenting practices were between the baseline and first follow-up interview, such that higher IPV at baseline was related to both higher authoritarian and authoritative parenting 4 months later (even after accounting for stability in abuse and parenting over time).⁴ It appears from these findings that mothers' parenting practices shifted in reaction to changing life circumstances. Most of the women in this study were in crisis shortly before their first interview. Many had just exited a domestic violence shelter, some had recently filed for a personal protection order, and others had been so abused the police were called out. It may be that in order to compensate for these circumstances, women engaged in more directive (authoritarian) as well as more explanatory (authoritative) parenting practices; then once life stabilized after the initial crisis, IPV no longer had a significant lagged effect on mothers' parenting practices. This is consistent with Belsky's model of parenting (1984) and an

⁴ At first glance, this may appear somewhat surprising as authoritarian and authoritative parenting are negatively correlated with one another. This correlational finding represents between women differences in parenting with women who engage in more authoritative parenting also engaging in fewer authoritarian practices than women who engage in fewer authoritative parenting practices. The relationship between IPV at T1 to authoritarian and authoritative at T2 is a within-women change in parenting such that women who experienced higher IPV, engaged in higher authoritarian and authoritative parenting practices at T2 compared to their own individual parenting levels at T1om T1 to T2. Due to the fundamental differences in how these findings are assessed (between women vs. within women differences in parenting), they are not contradictory. Rather it is possible for women who experience high levels of IPV at T1 to increase their own authoritarian and authoritative parenting practices relative from T1 to T2, while across the entire sample, on average, women who engage in higher authoritative parenting still tend to engage in lower authoritarian parenting than women who tend to engage in lower levels of authoritative parenting.



ecological perspective on parenting (Bronfenbrenner 1979) which affirm that parenting is both dynamic, and responsive to contextual circumstances; in this instance, the impact of one factor (IPV) on women's parenting changed over time, likely in tandem with changing life circumstances.

The third set of findings related to the relationships between women's parenting and child behavior. At Time 1, relationships between parenting and child behavior were consistent with what would be expected from the literature: higher authoritarian and permissive parenting practices were correlated with more externalizing behaviors and higher authoritative parenting was correlated with fewer externalizing behaviors (Darling and Steinberg 1993; Lamborn et al. 1991; Parent et al. 2011; Querido et al. 2002; Steinberg et al. 1991). Thus, maternal parenting practices were in fact an important factor in shaping child behavior. In addition to examining within-time relationships between parenting and behavior, the current study also examined lagged relationships (by modeling the effect of parenting on behavior at the next time point, after controlling for within T1 correlations and stability in parenting and behavior over time). These relationships allowed us to not only examine whether maternal parenting was related to child behavior at the same time point, but also longitudinal relationships: after accounting for prior levels child behavior, does parenting predict child behavior at the next time point? After accounting for prior levels of parenting, does child behavior predict parenting at the next time point?

There were few statistically significant lagged relationships between parenting and children. Specifically, after controlling for prior parenting practices, child behavior was not related to any of the three parenting practices at the next time point (i.e., behavior at T1 did not predict parenting at T2 and behavior at T2 did not predict behavior at T3). In addition, after controlling for T1 child behavior, none of the T1 parenting practices were predictive of T2 child externalizing behaviors. On the other hand, there was a time-lagged effect of authoritative parenting at T2 on externalizing behavior at T3. In other words, there was an additional protective effect of T2 authoritative parenting such that after controlling for T2 child behavior, higher authoritative parenting at T2 led to less T3 child externalizing behaviors. It is unclear why this finding may have held from T2 to T3, but did not occur from T1 to T2. Again, the unique and challenging life circumstances these families faced at T1 may account for differences in these relationships. It may be that the uniquely stressful circumstances at T1 meant that women's authoritative parenting practices, (although they engaged in them and they had an important effect on children's behavior problems at that time point) were not able to act as an additive,

protective factor that led to an additional decrease in externalizing behavior at Time 2. However, by T2, when life had likely become more stable, authoritative parenting did have this additional protective effect. Future research should continue to explore these relationships to better understand the unfolding dynamics between women's parenting and child behavior over time in the context of abuse and changing life circumstances.

The final set of findings addressed the mechanisms by which assailants' abuse of women influenced their children's behavior at a later time point. The longitudinal nature of this study allowed for a rigorous test of mediation in which the variables of interest had an established temporal order. Findings revealed a significant effect of T1 IPV leading to higher child externalizing behavior at T3 via stability in both IPV victimization and child externalizing behaviors over time. When examining the effects of parenting practices as mediators, the only statistically significant effect was that women who experience higher IPV at T1 tended to be more warm, accepting, and firm in their parenting (i.e., authoritative) at T2 and as a consequence their children displayed fewer problem behaviors at T3. This is consistent with Levendosky et al. (2003) work that also found a positive relationship between IPV and positive parenting practices, which led them to conclude that higher levels of positive parenting was a result of women compensating for higher levels of abuse. On the other hand, there were no significant indirect effects to support the notion expressed in prior literature that higher IPV leads to more child behavior problems via more negative maternal parenting practices (i.e., higher authoritarian and permissive parenting). While T1 IPV did lead to higher T2 authoritarian parenting, the indirect effect of IPV on child behavior via authoritarian parenting was not significant. Thus future work to explore these complex inter-relationships is warranted.

These findings should be examined in light of several limitations. The current study is based on a sample of women who were generally of low socioeconomic status and sought formal help in response to abuse. Specifically, to find safety from further victimization, some of the women had recently left home, some had sought a protection order, and some had called the police. Furthermore, the sample also consisted of women who agreed to participate (and allowed their children to participate) in an experimental study of an advocacy intervention for women and their children. It is possible that some mothers may be more or less willing to engage in such a study. Consequently, the findings reflect the unique life circumstances of low income, help-seeking women who were willing to participate in an advocacy intervention study, and are only generalizable to this subset of IPV survivors. Future research with more diverse samples of women with abusive



partners can help to shed further light on these findings, and how parent/child dynamics within the context of abuse change over time.

Another limitation concerns the use of self-report data to examine women's parenting and children's externalizing behavior. It is possible that social desirability may have influenced the women's reports of their own parenting practices or their child's behavioral problems. In addition, parenting and child behavior are extremely common, everyday occurrences that may be difficult to recall accurately. As such, participants' answers could have been influenced by recall bias. Future research on this topic may benefit from combining self-report data with other modes of data collection, particularly observations of parenting practices and child behavior.

An additional limitation of the current study concerns the ability to explain other mechanisms that account for the relationship between IPV and children's behavior problems. The primary focus of this study was whether maternal parenting practices were a mechanism by which IPV against mothers has a negative effect on children's behavior. By refuting the idea that IPV victimization contributes to poor parenting, which then negatively influences children's behaviors problems, this study addressed an important issue in the literature. However, other mechanisms that could account for the relationship between men's abuse of women and child behaviors should be examined in future research. For example, a common tactic of abusers is to estrange and separate women from their social support networks (such as their family and close friends; Tolman 1999). It may be that a secondary consequence of this tactic is that the women's children also become more isolated and have less social support available; this in turn could contribute to children's externalizing behaviors. Another tactic that batterers employ is manipulating the victim's children in order to harm and control their mother, for example, by trying to turn the children against her, or by using the children to frighten her (Beeble et al. 2007). The negative effects that these methods of control have on the children may also contribute to behavioral problems; future research should explore these possibilities.

The current study has several implications for policy and practice in regards to IPV. First and foremost, the study is one of thousands that highlight the negative outcomes that are associated with IPV. Not only is greater IPV related to negative consequences for women, it is also associated with lasting negative outcomes for the children 4 months later. There is clearly a strong and pressing need to engage in effective, well-resourced prevention efforts that both teach boys and men to avoid engaging in violence and coercive control within relationships, and address structural gender inequalities in our society that contribute to a climate that perpetuates and condones male violence against women.

The current study also underscores the importance of interventions to mitigate the negative impact of IPV on the lives of women and their children. Women with abusive partners and their children are embedded within multiple, intersecting ecological contexts that influence their needs, formal help-seeking patterns, and the effectiveness of services at meeting those needs and promoting their wellbeing (Kennedy et al. 2012). Therefore, services that are tailored to the unique contexts that mothers with abusive partners face are likely to be most effective. For example, given that financial resources are a central barrier to ending an abusive relationship (Kim and Gray 2008), this should include interventions such as advocacy, shelters, and financial assistance programs that help women obtain needed resources, achieve economic independence from their abusive partners (whether or not the relationship ends), and meet their own and their children's tangible needs (e.g., food, safe housing, quality daycare, enrichment and educational opportunities for the children) despite the abuse. This can also include other psychosocial interventions that can help diminish the negative impact on children, such as providing women with resources to help their children learn positive coping strategies, and offering formal support to the children, such as counselors or advocates who have expertise with children and IPV.

In addition to offering supportive programs, this study suggests the need to critically evaluate children's programs that are based on the assumption that women with abusive partners are poor parents. A growing body of literature has demonstrated examples of children being taken away from women with abusive partners even though these women had not abused or neglected them. One study found that in some of these cases, even after the abuse had ended, the assailant was out of the home, and the mother had completed the requirements of the child welfare system, the children remained in protective custody and were not returned to their mothers (Shim and Haight 2006). Such interventions may rest upon a faulty assumption that women who have had abusive partners are incapable of effective parenting. This is a critical problem, as fear of having their children taken away deters many women from seeking help in response to IPV (Devoe and Smith 2003).

There is also evidence that women with abusive partners are mandated into basic parenting classes based on having been abused, rather than based on an assessment of their parenting (Shim and Haight 2006). Many women who were referred to these classes do not see them as valuable due to their narrow focus on basic parenting skills. They have noted that their experiences of IPV did not shape how they parent their children and the classes failed to address issues related to parenting within the context of IPV, such as the effects of the abusers' behavior on children (Shim and Haight 2006). Such services that are not perceived as



helpful and do not meet women's needs are unlikely to have a positive impact on their or their children's well-being (Kennedy et al. 2012) Despite the mismatch between women's needs and these types of unspecialized parenting classes, many professionals routinely refer women with abusive partners to such services (Shim and Haight 2006). Research findings that counter commonly held assumptions about survivors' abilities to parent must be widely disseminated to professionals responsible for these mandates.

Given that IPV victimization does heighten some mothers' parenting stress (Davies and Cummings 1994; DeBoard-Lucas and Grych 2011; Grych et al. 2000; Huth-Bocks and Hughes 2008; Spilsbury et al. 2007; Sullivan et al. 2000), voluntary, strengths-based services that support women and help them to parent effectively in the context of abuse, should be available to women who want them. Such programs can provide helpful information about common reactions that children have to abuse, and can help mothers strategize how to help their children cope. Indeed, research suggests that some women with abusive partners do find parenting classes to be helpful (Shim and Haight 2006), as do many parents. However, such services should not be provided from the deficits-based perspective that women who have been abused are characteristically deficient parents.

In short, this study suggests adopting a more strengthsbased theoretical framework when examining the relationship between IPV victimization and mothering. While one would expect victimization to have many negative impacts on their lives, women are also active agents who, despite tremendous barriers and obstacles, continue to nurture their children and build better lives for their families. Focusing on survivors' strengths and capabilities will result not only in a more comprehensive understanding of their and their children's lives and needs, but also in the development of more effective social policies and programs.

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