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Psychosocial Consequences of Intimate Partner Violence (IPV) Exposure in Maltreated Adolescents: Assessing More than IPV Occurrence

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Abstract

The majority of research on the psychosocial impact of intimate partner violence (IPV) exposure for children has focused on IPV occurrence. The current study extended this research by examining three dimensions of IPV exposure: frequency, proximity, and severity, and tested whether these dimensions predicted variance in adolescents' psychosocial problems over-and-above that accounted for by IPV occurrence. Participants included 140 adolescents and their caregivers, who were recruited for an intervention involving maltreated youth placed in out-of-home care. After controlling for IPV occurrence, exposure to community violence, and severity of maltreatment, results indicated a positive association between the multidimensional IPV index and youth report of psychosocial problems. There was also a trend for a positive association between the IPV index and caregiver report of psychosocial problems for boys. The study's results are discussed in terms of their implications for prevention researchers and child welfare agencies.

Keywords

Domestic Violence Exposure; Psychosocial problems; Maltreatment; Foster care

Each year, an alarming number of children and adolescents in the United States is exposed to intimate partner violence (IPV). Recent estimates indicate that 30% of youth reside in a household where IPV occurred at least once in the previous year (McDonald et al. 2006). Consistent with these estimates, studies that collect retrospective data from general samples

of adults find that 20–40% of those surveyed report having been exposed to IPV during their childhood or adolescence (Maker et al. 1998).

Recent meta-analyses and reviews of the literature demonstrate that IPV exposure is associated with psychosocial problems (e.g., mental health and emotional) in children and adolescents (Evans et al. 2008; Kitzmann et al. 2003; Wolfe et al. 2003). However, there is some evidence that the impact of IPV on children varies depending on a child's gender and age. Studies have found that girls exposed to IPV are more likely to exhibit internalizing problems, such as depression, anxiety, and trauma symptoms, while boys are more likely to exhibit externalizing problems, such as aggression and rule breaking behavior (Buckner et al. 2004). In addition, previous studies suggest that there are developmental differences in how children process the witnessing of IPV and these differences have implications for adjustment. While younger children who witness IPV are more likely to blame themselves for the violence and to perceive it as threatening, the impact of these perceptions on adjustment problems tends to be greater for older youth (Grych 1998; Jouriles et al. 2000).

Dimensions of IPV Exposure

IPV exposure can involve a range of experiences (Holden 2003), from seeing, hearing, or being directly involved in the violence, to becoming aware of the episode by observing its aftermath (e.g., caregiver injuries, broken furniture). Most of the studies examining the consequences associated with IPV exposure, however, have characterized it as a unidimensional construct, assessing only the impact of IPV occurrence (Evans et al. 2008). There has only been a handful of studies that have examined other aspects of IPV exposure. Some studies, for example, have investigated children's proximity to the IPV (i.e., whether children see or hear the violence while it is occurring). In general, youth who witness IPV exhibit significantly more psychosocial problems when compared to nonwitnesses (Kitzmann et al. 2003) and this impact is evident even after accounting for age, gender, and other traumatic life events (Russell et al. 2010). Researchers have also investigated the impact of IPV severity on children's psychosocial functioning. Youth who are exposed to IPV involving knives or guns exhibit significantly more behavior problems than youth exposed to violence where such weapons were not employed (Jouriles et al. 1998). Finally, there have been some studies that have examined the impact of IPV frequency on psychosocial outcomes in children. Evidence from these studies indicates a linear relationship between the frequency of IPV exposure and increased psychosocial problems in children (Grych et al. 2000).

The Current Study

The studies reviewed above suggest that IPV proximity, severity, and frequency are separately associated with negative outcomes in children. What has not been tested, however, is whether these dimensions explain variance in psychosocial outcomes over-and-above that explained by IPV occurrence. Examining impact of youth exposure to IPV across multiple dimensions may enhance researchers' understanding of how IPV impacts youths' adjustment and may help explain the heterogeneity in psychosocial problems observed among IPV-exposed youth. Grych et al. (2000), for example, found that while close to one-third of their sample of IPV-exposed youth exhibited clinical levels of psychosocial problems, a similar proportion exhibited few signs of maladjustment.

The overarching goal of the current study is to extend previous research by comparing the impact of multiple dimensions of IPV exposure to IPV occurrence within a sample of maltreated youth with a history of placement in out-of-home care. Use of a maltreated sample allows a comparison of the impact of IPV exposure to other risk factors for psychosocial maladjustment. A number of studies, for example, have found that

maltreatment severity is associated with impairment in psychosocial functioning (see Litrownik et al. 2005 for a review). In addition, maltreated youth entering foster care are also exposed to high levels of violence in their communities, which has also been found to be associated with psychosocial problems (Garrido et al. 2010). Thus, a second goal of this study was to examine whether IPV exposure predicts psychosocial problems after controlling for child maltreatment and exposure to community violence.

Method

Participants

Recruitment—Participants in the current study were 12–15 year old adolescents involved in the Fostering Healthy Futures program, a preventive intervention with a longitudinal follow-up for maltreated youth placed in foster care (see Taussig et al. 2007 for a description of the intervention). All of the data analyzed in the current study, with the exception of maltreatment severity (collected at baseline), were gathered as part of a follow-up interview conducted 3.5 years post-baseline. Participants were recruited for the original study if they met the following inclusion criteria: 1) they were 9–11 years old and had been court-ordered into foster care within the preceding 12 months due to maltreatment; 2) they were proficient in English; and 3) they had no known intellectual disabilities. To avoid issues of non-independence, one sibling was randomly selected for inclusion when multiple members of a sibling group were eligible. Ninety-three percent of eligible youth ($n=156$) and caregivers completed interviews at the baseline assessment. Ninety percent of the youth enrolled and their caregivers completed the follow-up assessment for the current study ($n=140$). Results of *t*-test and chi-square analyses indicated that participants who were lost to follow-up ($n=16$) did not differ from study participants on demographic characteristics, such as age, gender, and ethnicity, and on maltreatment severity.

Participant Characteristics—The study's sample of 140 youth was 52.9% female ($n=74$), with a mean age of 13.44 years ($Range=12-15$; $SD=.93$). At the time of the follow-up assessment, youth resided in the following types of out-of-home care: kinship care (32.1%), foster care (17.9%), adoptive homes (9.3%), and institutional care (10.0%) (e.g., group homes, shelters, and residential treatment centers). The remaining 30.7% of youth had reunified and were living with their biological parents. The sample of youth was ethnically diverse, with 43.6% of youth reporting their ethnicity as Hispanic, 47.1% as Caucasian, 31.4% as African-American, 6.4% as Native American, and 2.8% as Asian or Pacific Islander (non-exclusive categories).

Procedure

All procedures and measures were approved by the university's institutional review board, and interviews were conducted after obtaining consent from caregivers and children's legal guardians, as well as assent from youth. Youth and caregivers were interviewed separately at their residence or other community location. All measures were administered verbally by the interviewer. Youth and caregivers were each paid \$50 for their participation.

Measures

Dimensions of Intimate Partner Violence Exposure—Exposure to intimate partner violence was assessed with 11 items from the Physical Assault scale of the Revised Conflict Tactics Scale (CTS2; Straus et al. 1996). Youth were asked to, "Think about any caregivers from any home where you have ever lived in the past. Thinking about all the caregivers with whom you have lived in the past, please tell us how many times the following things have happened." Types of IPV assessed included: pushing or shoving; grabbing, slapping, or pulling hair; punching; kicking; hitting with something that could hurt; throwing something

that could hurt; slamming against a wall; choking or strangling; burning or scalding; using a knife or gun; throwing, breaking, smashing, or punching something (not a person). When youth indicated that they had been exposed to a type of IPV, they were asked to report how many times they had been exposed and to rate their proximity to the IPV using a five-point scale developed by Edleson and colleagues (Edleson et al. 2008): witnessed the IPV at a close distance ('5'), witnessed the IPV at a far distance ('4'), heard the IPV while it was occurring, but did not see it ('3'), learned of the IPV after it had occurred ('2'), saw the outcome of an act of IPV (e.g., something broken, an injury received by a parent) ('1').

Four separate variables representing dimensions of IPV occurrence, frequency, proximity, and severity were created. IPV occurrence was a dichotomous variable, with participants assigned a score of '1' if they indicated having been exposed to any type of IPV at least once in their lives (0=No Exposure). IPV frequency was indexed as the number of times youth had been exposed to all acts of IPV (*Range*=0 to 44; *M*=5.71; *SD*=9.37). IPV proximity was indexed as the mean of participants' proximity ratings, which ranged between 0 and 4.82 (*M*=.87; *SD*=1.29). IPV severity was indexed as the sum of seven items: punching; kicking; hitting with something that could hurt; slamming against a wall; choking or strangling; burning or scalding; using a knife or gun, typically considered severe in the literature (McDonald et al. 2006; Straus et al. 1996). IPV severity scores ranged between 0 and 7 (*M*=.96; *SD*=1.71).

Psychosocial Problems—Caregivers completed the *Total Problems* scale of the Child Behavior Checklist (CBCL) and youth completed the Youth Self-Report (YSR; Achenbach and Rescorla 2001). The CBCL and YSR are widely-used, standardized measures of child behavior problems with sound psychometric properties. Following Achenbach's recommendations (Achenbach and Rescorla 2001), CBCL and YSR raw scores were used in all analyses. Higher scores on the *Total Problems* scale indicated greater problems.

Maltreatment Severity—Child Protection Services' (CPS) intake reports and Dependency and Neglect petitions (narratives of the history and events precipitating the legal filing) were used to code the severity of maltreatment in the 2 years prior to entering the longitudinal study. Using the maltreatment classification system developed by Barnett et al. (1993), two to three trained research assistants consensus coded the severity associated with each type of maltreatment. All discrepancies were resolved through consultation with one of the senior investigators. Maltreatment severity codes ranged between 1 and 5, with a '5' representing the greatest severity. In the current study, we used the participants' highest severity rating across the different types of abuse/neglect as a measure of maltreatment severity.

Community Violence Exposure—An adapted, 12-item version of the "Things I Have Seen and Heard" scale (Richters and Martinez 1993) was administered to youth as a measure of community violence exposure. Youth were asked to indicate the number of times in the past year they had seen or heard acts such as, "guns being shot," or "someone stealing something from a store or another person's house." Responses were provided on a five-point scale (0="never" to 4="four or more times") and the mean of the responses to the 12 items was computed to form a community violence exposure composite.

Preliminary Analyses

We first examined the correlations among the IPV frequency, proximity, and severity variables. Results of these preliminary analyses revealed that the intercorrelations were exceptionally high (*rs*.91–.94), therefore they could not be included in models simultaneously due to multicollinearity. As a result, we subjected participants' scores on the three dimensions of IPV to a principal components factor analysis and created an index

score for each participant. Eigenvalues and examination of the scree plot revealed a one-factor solution that accounted for 95.0% of the variance. Factor scores on this multidimensional IPV index were used in all subsequent analyses. Participants who had not been exposed to IPV received a score of 0 on the index.

Analysis Plan

Chi-square, *t*-tests, and correlational analyses were used to determine whether youths' sex and age were associated with IPV exposure. Hierarchical multiple regression analyses were used to estimate the association between the multidimensional index of IPV exposure and youth- and caregiver-reported psychosocial problems after controlling for IPV occurrence, maltreatment severity, and community violence exposure. We included terms for the main effect of sex and age, as well as interaction terms (sex $\times$ IPV occurrence, sex $\times$ IPV index, age $\times$ IPV occurrence, and age $\times$ IPV index). We used youth-report of total problems as the dependent variable in the first series of analyses and caregiver-report of total problems in the second series.

Results

Descriptive Statistics and Bivariate Associations

Descriptive statistics for the study variables are presented for the entire sample and by participants' sex in Table 1. A little over half of the participants reported being exposed to IPV at least once in their lives, with girls more likely to report exposure than boys, $\chi^2(1)=11.35, p<.001$. In addition, girls on average had a significantly higher multidimensional IPV index score than boys, $t(138)=2.38, p<.01$. A high percentage of youth (87.9%; $n=123$) also reported exposure to community violence, but there were no sex differences in terms of exposure between males (89.4%; $n=59$) and females (86.5%; $n=64$). Similarly, there were no sex differences in age, maltreatment severity, or youth- and caregiver-reported total problems. In addition, the multidimensional IPV index and CBCL and YSR total problems variables were all normally distributed.

Table 2 presents the bivariate associations among the study variables for the entire sample. Older youth reported more exposure to community violence and those youth exposed to more community violence had higher levels of self- and caregiver-reported total problems. In addition, both the IPV occurrence variable and the multidimensional IPV index were associated with youth-reported total problems, but neither was associated with caregiver-reported total problems. Finally, the IPV occurrence variable and multidimensional IPV index were significantly correlated with one another, as were youth and caregiver reports of total problems.

Association Between IPV Exposure and Psychosocial Problems

A hierarchical multiple regression analysis was used to compare the impact of the IPV occurrence variable and the multidimensional IPV index on youth report of psychosocial problems. In the initial model, the terms representing the interaction of sex $\times$ IPV occurrence and age $\times$ IPV occurrence were not significant; consequently they were dropped from the model and the analysis was re-run with sex and age retained as control variables. Results of this model are summarized in the top half of Table 3. In step 1, greater levels of community violence exposure were associated with more youth-reported psychosocial problems. In addition, there was a trend for the IPV occurrence variable to be positively associated with psychosocial problems ($p=.07$). When we added the multidimensional IPV index to the model in step 2, we found that the index accounted for a significant increase in the variance explained.

Results of the analyses modeling caregiver report of psychosocial problems are summarized in the bottom half of Table 3. In step 1, exposure to community violence, sex, and the sex $\times$ IPV occurrence interaction were all reliable predictors of caregiver-reported problems. Youth with greater levels of community violence exposure had higher levels of psychosocial problems. In order to understand the findings with respect to the sex $\times$ IPV occurrence interaction, we plotted the marginal mean number of caregiver-reported problems for males and females who did and did not report the occurrence of IPV (see Fig. 1). A trend suggested that boys exposed to IPV had more problems than boys with no IPV exposure (simple slope = .19, $t(137) = 1.60$, $p = .11$), while girls with IPV exposure had fewer problems than girls with no IPV exposure (simple slope = -.18, $t(137) = 1.58$, $p = .12$). In step 2 of the analysis, a trend suggested that the impact of the multidimensional index of IPV might also depend on sex ($p = .07$). The pattern of the association was similar to that observed for the IPV occurrence variable. Boys showed an increase in caregiver-reported problems as multidimensional IPV index scores increased, whereas for girls, higher index scores were associated with fewer problems.

Additional Analyses

Because almost half of the sample had not been exposed to IPV and received a score of 0 on the multidimensional IPV index, we re-ran the multiple regression analyses using only the subset of participants who had experienced IPV ($n = 72$) to see if the findings mirrored those of the full sample. Consistent with the previous analyses, we controlled for community violence exposure, maltreatment severity, participants' age and sex, and the interaction terms (sex $\times$ IPV index, age $\times$ IPV index). In the first analysis, which predicted youth report of total problems, the interaction terms were not significant and were dropped from the model and the analysis re-run. Results from the subsequent analysis are summarized in the top half of Table 4. Consistent with the results using the full sample, community violence exposure was a significant predictor of more youth-reported problems. In addition, greater scores on the multidimensional IPV index were associated with more psychosocial problems. Results of the second regression analysis predicting caregiver-reported problems are presented in the bottom half of Table 4. Again, community violence exposure was a significant predictor of greater levels of caregiver-reported total problems. There was also a trend for a significant interaction between the multidimensional IPV index and sex ($p = .10$), with the pattern of the associations similar to that observed with the full sample.

Discussion

The aim of the current study was to test whether dimensions of IPV exposure, such as frequency, proximity, and severity predicted variance in psychosocial problems after controlling for IPV occurrence. Because of concerns over multicollinearity, we were unable to examine the unique impact of these dimensions of IPV exposure. However, we found that, for youth report of problems, an index comprised of IPV frequency, proximity, and severity accounted for a significant amount of variance over-and-above that predicted by IPV occurrence. It is important to note that the study's results were observed in a sample of youth that had all been placed in out-of-home care due to maltreatment, and that a high percentage of these youth had also been exposed to community violence in the year prior to the assessment. It is significant that among such a high-risk sample of youth, and after controlling for maltreatment severity and community violence exposure, the multidimensional IPV index remained a significant predictor of youth-reported psychosocial problems.

A somewhat different pattern of results emerged in the current study when we examined caregiver-reports of psychosocial functioning. While there was a trend for IPV occurrence to be positively associated with caregiver reports of total problems for boys, the association

was in the opposite direction for girls. The same results were observed with the multidimensional IPV index, after controlling for IPV occurrence. There are at least two possible explanations for these sex differences. First, it may have been the case that externalizing problems, which are more likely to be consequences of boys' exposure to IPV (Buckner et al. 2004; Edleson et al. 2008), were more salient to caregivers and, as a result, biased their reports of total problems. A second plausible explanation involves differences in the living situations of boys and girls at the time of the current study. We conducted post-hoc analyses and discovered that among IPV-exposed youth, more girls (76%) were placed with kinship care providers than boys (40%), $p < .05$ (Fisher's exact test). Consistent with prior studies indicating that kinship care providers are less likely than foster care providers to report behavioral problems for children in their care (Shore et al. 2002), there was a trend for IPV-exposed girls in kinship care to have lower CBCL total problems scores ($M=30.37$; $SD=20.25$) than IPV-exposed girls in foster care ($M=69.17$; $SD=39.43$), $t(5.86)=2.32$, $p=.06$. The difference in CBCL total problems scores for IPV-exposed boys placed in kinship vs foster care was not significant (most likely due to the small number of boys in these groups); however, the pattern of results was similar to that observed for girls. IPV-exposed boys in kinship care had lower CBCL scores ($M=44.75$; $SD=37.95$) than IPV-exposed boys in foster care ($M=58.67$; $SD=31.90$). Thus, sex differences in the relation between IPV exposure and caregiver reports of total problems may have been evident because of the greater likelihood for boys to be placed with foster care providers.

An additional finding from the current study that deserves discussion is that girls were significantly more likely to be exposed to IPV than boys. This finding is interesting given that among community samples, previous investigations have found that girls were only slightly more likely to be exposed to IPV than boys (Finkelhor et al. 2009). Among samples recruited from domestic violence shelters, however, the concordance between IPV and father-initiated child maltreatment is significantly greater for girls than for boys (Cummings et al. 1999). Researchers have hypothesized that fathers who are perpetrators of IPV may associate their daughters with their wives, and anger towards their wives may "spill over" to their interactions with their daughter (Margolin and Gordis 2003). Future research investigating sex differences in the concordance between IPV and child maltreatment, as well as possible explanations for this overlap, are needed.

Implications

Findings from the current study have implications for intervention efforts and child welfare agencies. First, our results suggest that prevention researchers interested in attenuating the negative impact of IPV may find it more effective to tailor their efforts to individual differences in children's exposure to IPV than implementing programs in a "one size fits all" fashion (Graham-Berman and Hughes 2003). While it is likely that all youth exposed to IPV would benefit from psychosocial programs, findings from the current study suggest that children exposed to multiple dimensions of IPV might need more intensive interventions. Several intervention programs have provided evidence of positive results among IPV-exposed youth (see Graham-Berman and Hughes 2003, for a review); however, evaluation of these programs' impact has not, to date, differentiated between high- and low-risk exposed youth. Given that community violence exposure in the current study was consistently associated with psychosocial problems, future interventions with IPV-exposed youth should evaluate the role of cumulative risk across several domains (e.g., multiple dimensions of IPV, child maltreatment, community violence) in moderating the program's potential impact.

A second implication of the findings involves the role of child welfare services in assessing and identifying families exposed to IPV. All of the youth in the current study had been removed from their homes because of maltreatment and approximately half reported

exposure to IPV at least once in their lives. This high rate of co-occurrence is consistent with reviews of the literature (Jouriles et al. 2008) and suggests that child welfare services can play a pivotal role in identifying families in need of services for IPV. Identifying IPV-exposed families has important implications for the health and well-being of the children involved. Mothers who maltreat their children and who are themselves victims of IPV are twice as likely to be re-reported to child welfare services relative to mothers with a history of maltreatment and no IPV victimization (Casanueva et al. 2009).

Limitations

Several limitations must be considered when interpreting findings from the current study. First, the study relied exclusively on retrospective reports from youth to gather data on IPV exposure. Researchers have found that adolescents' memory of violent victimizations can be faulty, even within weeks of the event (Jouriles et al. 2005). In addition, previous studies have found that memory is best for events that match participants' mood, a phenomenon known as mood-congruent memory (Kihlstrom et al. 2000). Consequently, youth who, at the time of the assessment, were experiencing more behavioral and emotional problems, may have had better recall of exposure to IPV than youth with relatively lower levels of total problems. Finally, it is important to recognize that youth in the current study were asked to recall incidents of physical IPV only. There is evidence to suggest that exposure to psychological abuse among intimate partners can have a greater impact on the victim's psychosocial functioning than physical IPV (Jouriles et al. 2009). However, it is unknown whether children's exposure to psychological abuse among intimate partners has a greater impact than physical IPV exposure. Future research should explore these potential differences.

Despite these limitations, the current study adds to the extant research literature by highlighting the importance of considering multiple dimensions when investigating the impact of IPV on children's psychosocial functioning. While studies conducted over the past 25–30 years have advanced our understanding of the negative consequences associated with IPV exposure, researchers should, as Evans et al. (2008) point out, "...go beyond the simple dichotomization of an experience as complex and multifaceted as exposure to domestic violence" (p. 137). The current study is a step in this direction and we hope it will spur further explorations of the multifaceted nature of IPV exposure for children and adolescents.

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Fig. 1.
Caregiver report of total problems for males and females as a function of IPV occurrence

Table 1 Descriptive statistics and sex differences among study variables

Variable	Overall Sample %; <i>M (SD)</i>	Boys (<i>n</i> =66) %; <i>M (SD)</i>	Girls (<i>n</i> =74) %; <i>M (SD)</i>
IPV occurrence	51.4%	36.4%	64.9% *
Multidimensional IPV Index (factor score)	0.00 (1.00)	-.25 (.79)	.22 (1.11) *
Age (years)	13.52 (.93)	13.38 (.93)	13.38 (.93)
Maltreatment Severity (1–5)	3.31 (1.21)	3.38 (1.16)	3.24 (1.25)
Mean Community Violence Exposure	.65 (.65)	.71 (.67)	.61 (.63)
CBCL Total Problems Raw Score	42.96 (28.28)	39.59 (26.42)	46.04 (29.73)
YSR Total Problems Raw Score	38.99 (22.40)	36.03 (20.90)	41.62 (23.48)

IPV Intimate Partner Violence; *CBCL* Children's Behavior Checklist; *YSR* Youth Self-Report Form

* Percentages and means between males and females are significantly different at $p < .05$

Table 2

Bivariate correlations among study variables

Variable	1	2	3	4	5	6	7
1. Age	–	–.02	.27*	.06	.03	.11	–.02
2. Maltreatment Severity		–	–.12	.06	.03	.07	.06
3. Community Violence Exposure			–	.08	.08	.39*	.33*
4. IPV Occurrence				–	.61*	.22*	.07
5. Multidimensional IPV Index					–	.27*	.01
6. YSR Total Problems						–	.36*
7. CBCL Total Problems							–

The point-biserial coefficient was computed for correlations involving the IPV occurrence variable

* $p < .01$

Table 3

Regression analyses predicting total problems—full sample ($n=140$)

Variables	B	SE	β	sr ²	R ²
Models Predicting YSR Total Problems					
Step 1					.21**
Age	.20	1.92	.01	.01	
Sex	-5.45	3.63	-.12	.02	
Community Violence Exposure	1.14	.23	.40	.14**	
Maltreatment Severity	2.05	1.45	.11	.01	
IPV Occurrence	6.54	3.62	.15	.02 [†]	
Step 2					.23**
Multidimensional IPV Index	4.32	2.17	.19	.02*	
Models Predicting CBCL Total Problems					
Step 1					.19**
Age	-4.94	3.57	-.16	.00	
Sex	-18.29	6.61	-.32	.01*	
Community Violence Exposure	1.46	.30	.41	.13**	
Maltreatment Severity	2.40	1.88	.10	.01	
IPV Occurrence	-46.97	65.49	-.83	.00	
IPV Occurrence $\times$ Age	2.75	4.88	.66	.00	
IPV Occurrence $\times$ Sex	20.56	9.36	.28	.03*	
Step 2					.21**
Multidimensional IPV Index	-53.16	43.45	-1.86	.01	
Multidimensional IPV Index $\times$ Age	3.45	3.18	1.64	.01	
Multidimensional IPV Index $\times$ Sex	11.77	6.35	.23	.02 [†]	

Sex was coded as 0=Girls; 1=Boys; Non-significant interaction terms were dropped from final models

[†] $p < .10$

* $p < .05$

 $p < .01$

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Table 4Regression analyses predicting total problems—IPV occurrence sample ($n=72$)

Variables	B	SE	β	t
Models Predicting YSR Total Problems				
Age	2.37	2.51	.10	.94
Sex	-3.94	4.87	-.09	-.81
Community Violence Exposure	1.15	3.95	.38	3.50**
Maltreatment Severity	3.05	1.91	.17	1.60
Multidimensional IPV Index	4.41	2.08	.23	2.12*
Models Predicting CBCL Total Problems				
Age	-3.95	4.14	-.13	-.95
Sex	-4.28	8.05	-.07	-.53
Community Violence Exposure	1.19	.50	.30	2.41*
Maltreatment Severity	3.16	2.85	.13	1.11
Multidimensional IPV Index	-54.18	47.63	-2.05	-1.14
Multidimensional IPV Index $\times$ Age	3.55	3.49	1.83	1.02
Multidimensional IPV Index $\times$ Sex	11.38	6.99	.24	1.63 [†]

Non-significant interaction terms were dropped from final models

[†]
 $p=.10$ *
 $p<.05$ **
 $p<.01$