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Links between childhood physical abuse and intimate partner aggression: The mediating role of
anger expression

Abstract

Research linking childhood physical abuse (CPA) and adult intimate partner aggression (IPA) has focused on individuals without sufficient attention to couple processes. In this study, 109 couples reported on histories of CPA, IPA, and anger expression. Actor-Partner Interdependence Modeling was used to examine links between CPA and revictimization and perpetration of IPA, with anger suppression as a potential mediator. Women's CPA histories were associated with more physical aggression towards and more revictimization by partners. Men's CPA histories were only associated at the trend level with their revictimization. Anger suppression fully mediated the link between women's CPA and both revictimization and perpetration of IPA. Findings suggest that women with CPA histories are more prone to suppress anger, which leaves them at greater risk for revictimization and perpetration of IPA.

Keywords: childhood abuse, revictimization, intimate partner violence, couples

Child abuse has been the focus of intense research in recent decades, and the devastating effects it has in adulthood are well documented (Fergusson, Boden, & Horwood, 2008). It is estimated that 772,000 children were victimized in the U.S. in 2008 and 32.6% of the victims were younger than 4 years old (U.S. Department of Health and Human Services, 2010). One of the most important sequelae of childhood physical abuse is the increased risk for future revictimization and perpetration of violence, which in turn has devastating effects on the physical and mental health of individuals and families (Arata, 2000). Although these links have been well documented, less is known about the mechanisms by which childhood physical abuse may foster violence in intimate relationships in adulthood.

The purpose of this study is to look at links between childhood physical abuse, revictimization by an intimate partner, and perpetration of partner violence, and then to examine difficulties with anger expression as a potential mediator of these links. To date, studies of links between childhood physical abuse and couple violence have focused on men and women individually rather than at the dyadic level. Such studies cannot fully take into account the effects of one partner on the other. Moreover, such studies may over-estimate the effect of childhood abuse on one's own violence in later couple relationships since they do not account for these kinds of potential dyadic effects. To our knowledge, this is the first study that incorporates data from both partners into an Actor Partner Interdependence Model (Kashy, Kenny, Reis, & Judd, 2000), which is increasingly being used to capture such complex dyadic effects. Moreover, this is one of the few studies to include men with histories of childhood physical abuse, who are also at higher risk of being revictimized in adulthood (Desai, Arias, Thompson, & Basile, 2002).

The negative sequelae of child abuse have been extensively documented in the literature, including symptoms of affective dysregulation such as depression and dissociation (Becker-Lausen, Sanders, & Chinsky, 1995; Fletcher, 2009), anxiety, and anger (Cogle, Timpano,

Sachs-Ericsson, Keough, & Riccardi, 2010; Neumann, Houskamp, Pollock, & Briere, 1996), along with physical health problems (Kendall-Tackett, 2002). Most research has focused on childhood sexual abuse with fewer studies of childhood physical abuse. Childhood physical abuse appears to be a strong independent predictor of negative life outcomes even after accounting for other forms of abuse and neglect. Kaplan et al. (1999) in their review of the literature found that childhood physical abuse is associated with cognitive, emotional and behavioral problems as well as with psychiatric disorders. Fergusson et al. (2008) found that exposure to childhood physical abuse was associated with major depression, anxiety, suicidality, anti-social personality disorder and substance dependence, as well as with the overall total number of mental health disorders that individuals were diagnosed with at ages 18, 21 and 25.

One of the most devastating outcomes of child abuse is the increased risk of being revictimized in adulthood (Hosser, Raddatz, & Windzio, 2007). Whitfield et al. (2003) found that a history of physical abuse increased the risk of revictimization two fold in a large sample of women. Similarly, in a nationally representative sample, women who experienced childhood physical abuse were three times more likely to experience adult physical revictimization compared to women with no histories of abuse (Desai et al., 2002). In the same study, men with histories of childhood physical abuse were four times more likely to experience adult physical revictimization compared to their non-abused counterparts. Research also suggests that compared with childhood sexual abuse, physical abuse may be a stronger predictor of revictimization. For example, in a sample of 475 female college students, Schaaf et al. (1998) found that women with histories of childhood physical abuse had a significantly higher rate of adult revictimization compared to women with histories of sexual abuse in childhood.

Childhood physical abuse is also a major risk factor for future perpetration of violence. Hosser et al. (2007) studied 1,526 young men and found that childhood maltreatment increased

the risk for violent behaviors in adulthood by 15.9%. Schumacher et al.'s (2001) review of the literature on male-to-female partner physical abuse also highlighted a link between a man's history of childhood physical abuse and perpetration of partner violence. Evidence further suggests that the frequency and severity of childhood physical abuse -- not just the presence of abuse -- may also play a role in the risk for negative outcomes. For example, Whitfield et al. (2003) found a graded relationship between the number of adverse childhood experiences and risk for victimization or perpetration of violence.

Even though both men and women are perpetrators of intimate partner aggression (IPA), gender differences do exist. Archer's meta-analytic review (2000) indicates that women are more likely to behave violently toward their partners, but men are more likely to seriously injure their partners when they become violent. The motivating forces of IPA are also thought to be different for men and women. Studies suggest that most male-to-female partner violence is driven by a need to exert power and control as well as fear of abandonment, whereas female-to-male partner violence is more likely to be in self-defense (Simmons, Lehmann, Cobb, Murphy, & Maiuro, 2009). McKinney et al. (2009) present one of the few studies that looked at couples with histories of childhood abuse. Analyzing men and women from 1615 couples separately, they found that men with severe childhood physical abuse histories had a twofold-increased risk of reciprocal IPA. At the same time women exposed to any type of childhood family violence were 1.5 times more likely to engage in reciprocal IPA.

Anger and childhood physical abuse

Various mechanisms have been proposed to explain the link between childhood abuse and risk for future violence, including social learning theory (Akers, 1973; Kwong, Bartholomew, Henderson, & Trinke, 2003), dissociation (Narang & Contreras, 2000), and PTSD (Taft, Schumm, Marshall, Panuzio, & Holtzworth-Munroe, 2008). Specifically PTSD and

dissociation are thought to increase vulnerability by decreasing awareness of environmental cues in dangerous situations (Hetzel & McCanne, 2005). In recent research, increasing attention has been paid to the emotional dysregulation that can result from childhood abuse experiences (Gratz, Paulson, Jakupcak, & Tull, 2009). In particular, the dysregulated experience and expression of anger has been linked with both traumatic childhood experiences and current intimate partner aggression (Eckhardt, Samper, & Murphy, 2008). Even though anger is an emotion that is commonly experienced by individuals who are victims of abuse as well as those with no abuse history, the way it is expressed tends to differ between victims and non-victims. For example, Epps and colleagues (1999) looked at how men and women with histories of childhood physical abuse differed in their experience of anger and found that individuals in the abused group had a greater predisposition to becoming angry and were less able to control it.

Anger and Intimate Partner Aggression

Problematic experience and expression of anger are also linked with intimate partner aggression. In their review of the literature on anger and IPA, Norlander and Eckhardt (2005) found that men who engaged in IPA experienced higher levels of anger and hostility than non-violent men with low levels of relationship satisfaction. Swan et al. (2005), in their study of 108 women who had used violence against their partners, also found a connection between female-to-male intimate partner aggression and anger expression. They found that women who had experienced both IPA and childhood victimization were more likely to experience intense angry feelings towards others and use aggression towards their current partners. Despite the clear link between anger and IPA much debate has taken place in the literature regarding the appropriateness of “anger management” approaches when clinically treating batterers. However as Maiuro and Eberle (2008) report in their review of state standards for domestic violence treatment there is strong empirical support for an anger focused treatment of domestically violent

men especially when anger is viewed as a “perpetrator trait” that can lead to poor coping and dysregulation.

Bi-directionality of violence

After decades of focusing almost exclusively on male perpetrators of partner violence, more recent studies have examined the bi-directionality of IPA. Archer’s meta-analysis (2000) showed that both men and women were physically aggressive in relationships. Stith et al. (2004) also found that male-to-female partner violence was strongly linked to the likelihood of female-to-male partner violence. Traditionally, investigators have addressed the non-independence of individuals within a relationship by conducting separate analyses of men and women. Use of the APIM model allows us to take into consideration the histories and attributes of both partners in the dyad to understand how they may influence not only their own but also their partners’ behavior. A model that simultaneously examines both partners’ abuse histories and recent violent behavior can help distinguish between *actor effects* (links between one’s own abuse history and one’s own violent behavior) and *partner effects* (links between one’s own abuse history and a partner’s violent behavior). Such a model can, for example, shed light on the question, “Does my abuse history not only make it more likely that I perpetrate IPA (actor effect) but also make it more likely that I am victimized because my partner perpetrates IPA (partner effect)?” Mediation analyses can then examine whether both of these pathways may be explained by poorly controlled anger. To our knowledge this is the first study to use the APIM to examine the following research questions:

1. When considered together in the same model, are both partners’ histories of childhood physical abuse linked with victimization and perpetration of violence?
2. If so, does one’s anger expression mediate the link between a history of childhood physical abuse and current victimization or perpetration of violence?

Methods

Participants

One hundred nine couples participated in a study about intimate relationships (for details see (Waldinger & Schulz, 2006). Participants were recruited through advertisements in the Boston metropolitan area. Advertisements on public transportation, in local newspapers, and on flyers posted in public places asked for volunteers to participate in “a study of couple communication” and/or “a study of couples whose disagreements sometimes get physical.” A community-based sample was recruited with oversampling of individuals who had histories of childhood abuse and recent intimate partner aggression. Couples were screened by telephone interview for eligibility; screening included questions about demographics and histories of child abuse and recent intimate partner aggression. Eligible couples had to be living together for a minimum of 12 months (but not necessarily married) prior to participating in the study, and fluent in English. To qualify as abused, men and women had to score 2 or above on the physical, sexual, and/or emotional abuse subscale of the Childhood Trauma Questionnaire (CTQ, Bernstein et al., 1994). Men and women were categorized as violent if either they or their partner reported that they had been physically violent at least twice in the prior year. Individuals were characterized as non-violent if they had never touched their partner in anger, and individuals who had been violent toward their partner but not in the past year were excluded from the study.

Eligible couples came to our laboratory for two sessions, during which each partner completed questionnaires. The mean age for men was 33.2 years ($SD = 8.8$) and the mean age for women was 31.7 years ($SD = 8.5$). The median length of relationship for the couples was 1.9 years (range = 0.4 – 30.0), 33.3% were married, and 78.2% did not have children. The ethnic makeup of the sample was 58.4% Caucasian, 29.0% African American, 7.8% Hispanic, 3.0%

Asian or Pacific Islander, and 2.0% Native American. The median family income per year was between \$30,000 and \$45,000, with 19.3% of participants indicating that their family earned less than \$15,000 and 26.0% indicating that they earned more than \$60,000. Participants varied widely in their educational experience: 45.0% had completed a bachelor's or more advanced degree, 17.0% had some post-high school education (vocational, some college, or an associate's degree), and 38.0% had a high school education or less.

Histories of childhood physical abuse were reported by 27% of men and 38% of women in the sample. In addition 56% of men and 57% of women were physically violent towards their partners during the previous year. Violence was present in 68 of 109 couples (62.4%). In 55 out of 68 of these couples, violence was bi-directional, in 6 couples only the man was violent, and in 7 couples only the woman was violent. Informed consent was obtained and couples were paid \$250 for their participation.

Measures

Childhood trauma. Histories of childhood trauma were assessed using the 28-item Short Form of the CTQ (Bernstein, et al., 1994). Items on the CTQ ask about experiences of sexual abuse, physical abuse, emotional abuse, physical neglect, and emotional neglect in childhood and adolescence and are rated on a 5-point, Likert-type scale with response options ranging from Never True (score = 1) to Very Often True (score = 5). The CTQ has been shown to yield reliable and valid retrospective assessments of childhood abuse and neglect (Bernstein, et al., 1994). The CTQ subscale scores for sexual abuse (Cronbach's alpha for men = .89, for women = .96), physical abuse (á for men = .74, for women = .90), and emotional abuse (á for men = .84, for women .88) were used in analyses.

Intimate partner aggression. Intimate partner aggression was assessed using the CTS-2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The CTS-2 is a 78-item self-report

questionnaire asking about the frequency and severity of participants' behaviors during conflicts in the past year. Participants were categorized as violent if they endorsed at least one aggressive act towards their partners. The CTS-2 has demonstrated good reliability and good discriminant and construct validity (Straus, et al., 1996). In the present study, Cronbach's alpha was .92 for women and .93 for men. The physical aggression subscale was used in analyses. To minimize under-reporting of aggression, we used the highest score reported by either partner for each individual's physical aggression score (Archer, 1999; Schafer, Caetano, & Clark, 2002).

Anger Expression. Habitual modes of anger expression were assessed using the Multidimensional Anger Inventory (MAI; (Siegel, 1986), a 38-item self-report questionnaire. Participants rated how well each of the items described themselves on a 5-point Likert-type scale ranging from *completely untrue of you* (1) to *completely true of you* (5). In the present study, we used scores on the two MAI subscales that index anger expression – Anger-in and Anger-out. Scores were computed by averaging participants' ratings for items on each subscale. Anger-in refers to the extent to which people mentally stew over angry feelings without expressing them overtly and reflects the degree to which individuals tend to suppress anger. By contrast, Anger-out concerns the extent to which people express their anger overtly. The MAI has shown adequate test-retest reliability, high internal consistency, and good external validity (Mikulincer, 1998; Siegel, 1986). Alpha scores for Anger-in (5 items) and Anger-out (2 items) were .78 and .65, respectively, for women and .68 and .60 for men. Correlations between Anger-in and Anger-out scores were -.20 for men and -.19 for women.

Data analysis

In the present study, we examined the association of each partner's severity of childhood physical abuse with their current intimate partner aggression, and mode of anger expression as a potential mediator of those associations. Preliminary analyses of the links between childhood

abuse and intimate partner aggression (violence and victimization) were conducted using Pearson correlations and revealed that IPA was significantly correlated with childhood physical abuse, but not with histories of childhood sexual or emotional abuse. The results of the correlations for the various forms of childhood abuse are presented in Table 1. The severity of a woman's childhood physical abuse was significantly correlated with both her own and her partner's use of violence in the relationship, whereas the severity of a man's childhood physical abuse was only correlated with his partner's use of violence in the relationship.

In order to further investigate these relationships in the dyad, we used the Actor-Partner Interdependence Model (Kashy, et al., 2000), an analytic approach that accounts for interdependence in two person-relationships and takes into consideration both individual and dyadic factors. All APIM models were estimated using AMOS SEM software version 17.0. In the APIM the effects of the independent variables associated with each individual member of the dyad are simultaneously estimated for both their own dependent variable as well as for the partner's dependent variable, which in this study is intimate partner aggression (IPA). This is particularly important in the study of violence between partners, as it is often bi-directional (Archer, 2000; Stith, et al., 2004), and abuse histories put men and women at risk for reciprocal IPA (Mckinney, et al., 2009). The simultaneous examination of actor and partner effects allows us to narrow the range of possible mechanisms linking child abuse with IPA. For example, weak actor effects and strong partner effects suggest that a person's violent behavior is more strongly related to the abuse history of the partner than to their own.

Figure 1 illustrates the proposed model with physical aggression against the partner, measured by CTS scores, as the outcome. Individual, or *actor*, effects capture the influence of each individual's childhood physical abuse histories on his/her own perpetration of partner violence while *partner* effects reflect the influence of each individual's childhood physical abuse

histories on their partners' use of violence in the relationship. Paths a and b represent, respectively, the influence of man's severity of childhood physical abuse on his aggression (actor effect) within the relationship as well as on his partner's use of intimate partner aggression (partner effect). Similarly, paths a' and b' represent the influence of a woman's severity of physical abuse on both her use of intimate partner aggression (actor effect) as well as her partner's use of aggression (partner effect). In order for actor effects or partner effects to be estimated accurately, they have to be estimated while controlling for the other effects; that is, to understand, for example, the influence of his physical abuse history on his own intimate partner aggression (an actor effect) the model must simultaneously account for the influence of his physical abuse history on his partner's use of aggression (partner effect). The double-headed arrow between both partners' histories of abuse (path e) acknowledges explicitly the potential influence of assortative mating (the possibility that individuals with similar childhood abuse histories choose one another) or other unmeasured variables that might influence both partners' reports of childhood abuse. Similarly, the double-headed arrow between both partners' use of intimate partner aggression (path f) takes into account factors of mutual influence that are not included in the APIM. The APIM was used to first identify significant pathways in the relationship between childhood abuse and intimate partner aggression. Once significant pathways were identified, anger expression was then examined as a mediating variable. This is represented in Figure 1 by paths c, d, d', g, h and h'. When examining mediation within the APIM framework, the actor and partner effects of both members of the couple are still explicitly modeled. So, for example, when testing the mediating role of anger expression in the link between women's severity of childhood physical abuse and their use of physical aggression, the APIM takes into account concurrent influences of man's intimate partner aggression on her aggressive behavior.

Results

Mean scores on the childhood physical abuse subscale of the CTQ were 8.6 ($SD = 4.0$) for men and 10.0 ($SD = 5.8$) for women. Mean scores on the physical aggression subscale of the CTS-2 were 10.5 ($SD = 16.9$) for men and 15.0 ($SD = 27.7$) for women. Given the skewed distribution of both of these variables, bootstrapping (Cheung & Lau, 2008; Shrout & Bolger, 2002) was performed on the mediated APIM model to test for fit.

The basic APIM (illustrated by the solid lines in Figure 1) is a fully saturated model, so no traditional fit indices (based on chi square) are available (Cook & Kenny, 2005). The model accounts for 9.7% of the total variance in women's IPA and also 9.7% of the total variance in men's IPA. The severity of a woman's childhood physical abuse was positively linked with physically aggressive behavior towards her partner ($\beta = 0.23, p < 0.05$) and was also positively linked with being the object of more aggression from her partner ($\beta = 0.28, p < 0.01$). The severity of a man's childhood physical abuse was positively linked at a trend level ($\beta = 0.18, p = 0.06$) with his being the object of physical aggression from his partner but was not linked with violent behavior towards his partner. There was also a link approaching statistical significance between men's and women's severity of childhood physical abuse ($\beta = 0.17, p = 0.08$).

Anger expression as measured by the MAI was then added to the APIM as a mediator between women's severity of childhood physical abuse and their current use of IPA as well as their partners' use of IPA towards them. Given that men's severity of childhood abuse was not linked to their perpetration of aggression and was only linked at the trend level to their partners' aggression, we only examine the potential mediating role of anger expression in the link between women's experience of physical abuse as a child and adult IPA.

Separate models were estimated for the two subscales of the MAI, Anger-In and Anger-Out. APIM analyses indicated that only woman's anger-in scores (i.e., her inner experience of

anger), and not her anger-out scores (i.e., not her outward expression of anger), were linked with either the severity of her childhood abuse or her and her partner's use of IPA. Thus, only results of the anger-in mediation analyses are presented in Figure 2. Fit indices for this APIM indicated that the data fit the model well ($\chi^2 = 0.2, p = 0.7$). Other indices of fit also confirmed a good fit: CFI = 1.00; RMSEA = 0.00, SRMR 0.01. The model accounted for 15.4% and 20.1% of the total variance in women's and men's IPA, respectively. Bootstrapping was run on the mediated APIM given the non-normal distribution of the abuse and violence data. The Bollen-Stine bootstrap revealed that our data fit the model well ($p = 0.606$). When women's Anger-In scores were incorporated into the APIM, they were significantly and positively linked with the severity of women's childhood abuse as well as their use of IPA. The relationship between childhood physical abuse and current intimate partner aggression became non-significant, indicating mediation of that relationship. Anger suppression was also found to mediate the link between a woman's childhood abuse and her partner's aggression towards her.

Discussion

The purpose of this study was to examine links between childhood physical abuse and intimate partner aggression in couples using a model that simultaneously accounts for multiple influences from each member of the couple. Use of the APIM allowed us to examine how each individual's severity of childhood physical abuse is associated with both his and her own potential aggressiveness in the relationship and with the partner's aggressiveness. We also examined two modes of anger expression as possible mediators of the link between severity of childhood physical abuse and intimate partner aggression.

Childhood Physical Abuse and Intimate Partner aggression

The results from the APIM analyses indicate that a woman's severity of childhood physical abuse is linked with her use of intimate partner aggression. This is consistent with prior

research (Graves, Sechrist, White, & Paradise, 2005; Mckinney, et al., 2009; Swan, et al., 2005). Also consistent with existing literature is our finding of a significant association between a woman's childhood physical abuse and her revictimization (Desai, et al., 2002; Schaaf & McCanne, 1998). However, prior studies have not used a model such as the APIM to account for dyadic effects, and thus may have misestimated these links.

Although previous studies have found an association between men's severity of childhood physical abuse and their use of intimate partner aggression (Schumacher, et al., 2001), we did not find this link to be significant in the APIM. The absence of this link in our data may suggest that this influence of men's childhood physical abuse histories is small compared to other influences that are taken into account by using an APIM analytic approach, such as that of their female partner's history of childhood physical abuse. In addition, the absence of a link between men's physical abuse history and their perpetration of IPA may be related to sample characteristics. Studies that have examined men's histories of childhood physical abuse as a risk factor for IPA have studied mainly court-identified cases (Schumacher, et al., 2001) and have found links with small to medium effect sizes. Unlike clinic and court-identified samples, the community sample used in the current study includes predominantly bilateral "common couple" violence (Johnson, 1995) rather than male-to-female violence only. Links between men's histories of child abuse and their use of IPA may differ depending on whether men are "patriarchal terrorists" or engaged in the more mutual physical aggression involved in common couple violence (Graham-Kevan & Archer, 2003; Johnson, 1995).

The link between men's childhood physical abuse and their victimization by an intimate partner has been established in prior studies (Desai, et al., 2002; Mckinney, et al., 2009). Because these studies analyzed data from men and women separately, they could not distinguish between the contribution made by assortative mating (i.e. abused men being more likely to choose abused

women, who in turn are more likely to be physically aggressive) and other influences such as attributes and behaviors of physically abused men that might trigger aggression from their partners. In the current study the link between men's abuse histories and being the object of their partners' violence approached statistical significance even when accounting for these factors.

Anger Expression

There has been considerable debate about the use of anger management as part of the treatment of perpetrators of IPA and at times anger has been seen as a form of blaming the victim. However, as Maiuro and Eberle (2008) discuss in their review there is much empirical support that suggests that trait anger plays a significant role in the perpetration of domestic violence and therefore addressing it clinically is important as it often reflects poor coping skills and emotional dysregulation.

Our results indicate that the extent to which women stew over or suppress angry feelings (Anger In) rather than expressing them openly mediated the link between women's severity of childhood physical abuse and their own aggression. This finding is consistent with prior research that has linked higher levels of anger both with childhood physical abuse histories and with intimate partner aggression (Swan, et al., 2005). Anger suppression also mediated the relationship between women's severity of childhood physical abuse and their partners' use of violence within the relationship. Exposure to childhood physical abuse commonly leads to difficulties with emotion regulation and anger (Gratz, et al., 2009). The emotion dysregulation of one member of the couple could act as a potential trigger for the partner who may then use aggression as a way to regulate his emotions. Given the cross-sectional nature of our data we cannot determine causation; however, our findings would be consistent with the hypothesis that suppression of angry feelings is more provocative than direct expression of anger. For example, a woman's suppressed anger may manifest in behaviors that can heighten tension such as sarcasm

or eye rolling. At the same time her anger suppression might also lead to her emotional withdrawal, which may in turn result in her partner feeling abandoned and frustrated, which could also heighten the risk for a violent reaction. Consistent with this idea, Lafontaine and Lussier (2005) have described how feelings of abandonment and rejection can lead to physical aggression within an intimate relationship. Anger Out was not linked with IPA, suggesting that direct expression of anger in a controlled manner may not have the same dysregulating effect on the couple that anger suppression does. This is consistent with the work of Swan et al. (2005) who found an inverse relationship between aggression in couples and controlled expression of anger.

Implications, Limitations and Directions for Future Research

If replicated, these findings have important clinical implications for the treatment of violent couples. They may, for example, guide clinicians to focus on particular behaviors and sequences of interaction that may be especially detrimental to violence-prone couples. Therapists may pay special attention to an individual's habitual modes of anger expression and how this may be linked with aggression within couples. More specifically, treaters might focus on a woman's anger suppression as a way of coping with a partner's threatening behavior, and how this way of managing anger can affect a partner during discussions and arguments. Helping partners understand how they deal with their anger and how that may affect the other member of the couple has the potential to reduce the frequency and severity of intimate partner aggression.

The links between childhood physical abuse and bilateral use of aggression that emerge from studying both members of the couple simultaneously suggest that clinicians should carefully assess childhood physical abuse in both partners as a risk factor for future violence. An important strength of the study that supports the generalizability of our findings is that the

sample was ethnically diverse and community-based and thus more representative of the general population than the court-mandated or clinic based samples used in most prior studies of IPA.

This study also has limitations that are important to consider. Our sample size was limited to 109 couples, raising the possibility that the absence of an expected association between men's histories of childhood physical abuse and their use of IPA might have been due to insufficient statistical power to detect an existing link. In addition, the study is cross-sectional; findings are correlational and cannot inform us directly about causation. This is especially important when considering the possibility that an abused partner's behavior may cause an abuser to act violently. Such conclusions cannot be drawn from our results. There is a need for further research that more closely examines actual patterns of interaction between individuals with histories of childhood physical abuse and partners who behave aggressively in the dyad. Such research could shed light on potential mechanisms by which one partner's anger suppression is linked with the other's aggressive behavior. Finally, this study is based on retrospective self-report data for childhood physical abuse, and recall bias cannot be ruled out.

Nevertheless, this study represents an advance in the examination of links between childhood trauma and revictimization, as well as links between childhood trauma and perpetration of IPA. Our findings illustrate the importance of using couples' data when addressing the link between childhood physical abuse and intimate partner aggression as well as the importance of addressing both partners' histories of childhood abuse and anger expression when dealing with IPA in clinical settings. This methodological approach can be extended to other forms of childhood abuse as well as other factors that could contribute to intimate partner aggression such as substance abuse, personality traits, and attachment style.

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Table 1. Pearson correlations between severity of childhood sexual, emotional and physical abuse and IPA (N = 109 couples).

		Perpetration of intimate partner aggression	
		Men	Women
Severity of physical abuse			
	Men	0.148	0.215*
	Women	0.295**	0.258**
Severity of sexual abuse			
	Men	0.057	0.1
	Women	-0.056	0.082
Severity of emotional abuse			
	Men	0.067	0.105
	Women	0.092	0.074

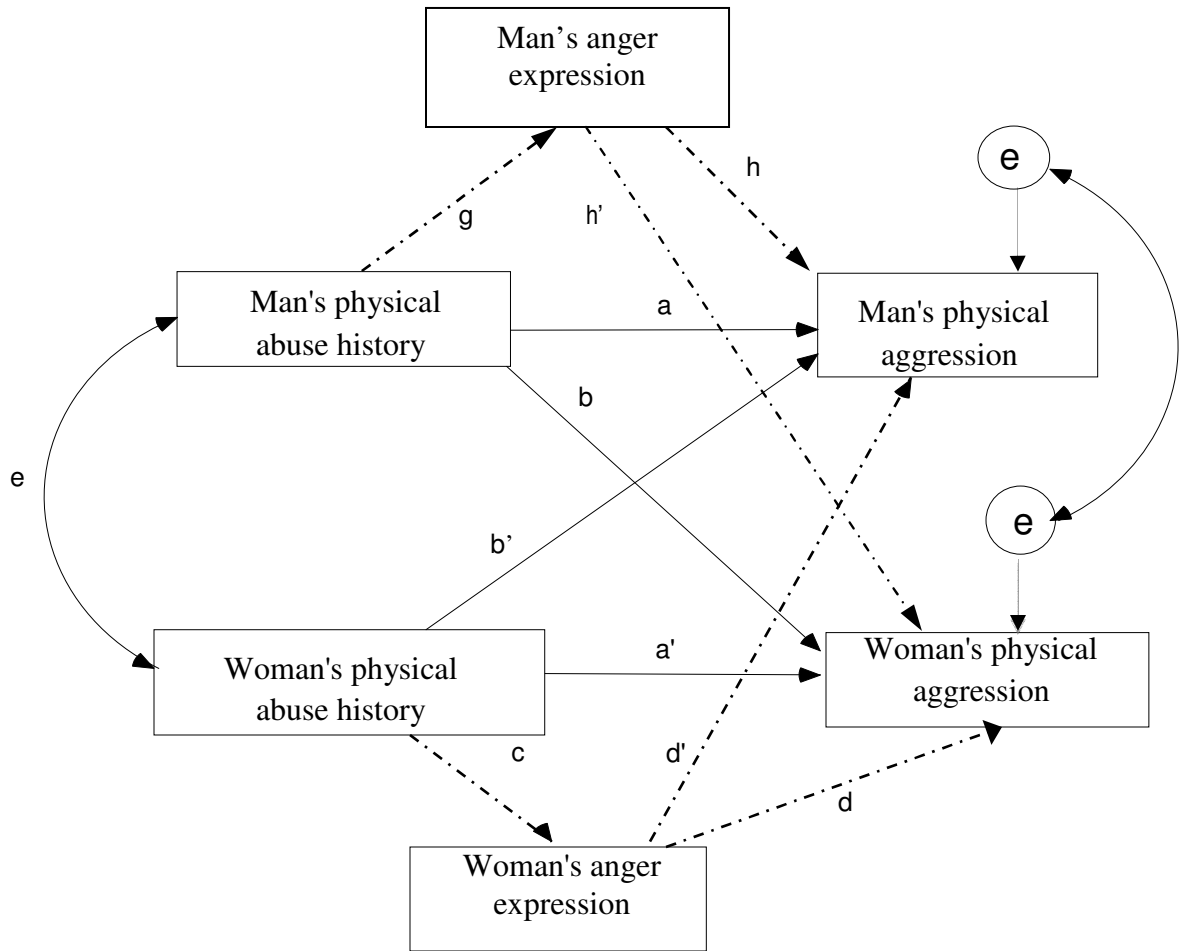
⁺ $p < .10$; * $p < .05$; ** $p < .01$

Figure Captions

Figure 1. Actor and partner effects of severity of childhood physical abuse on intimate partner aggression with anger as a mediator

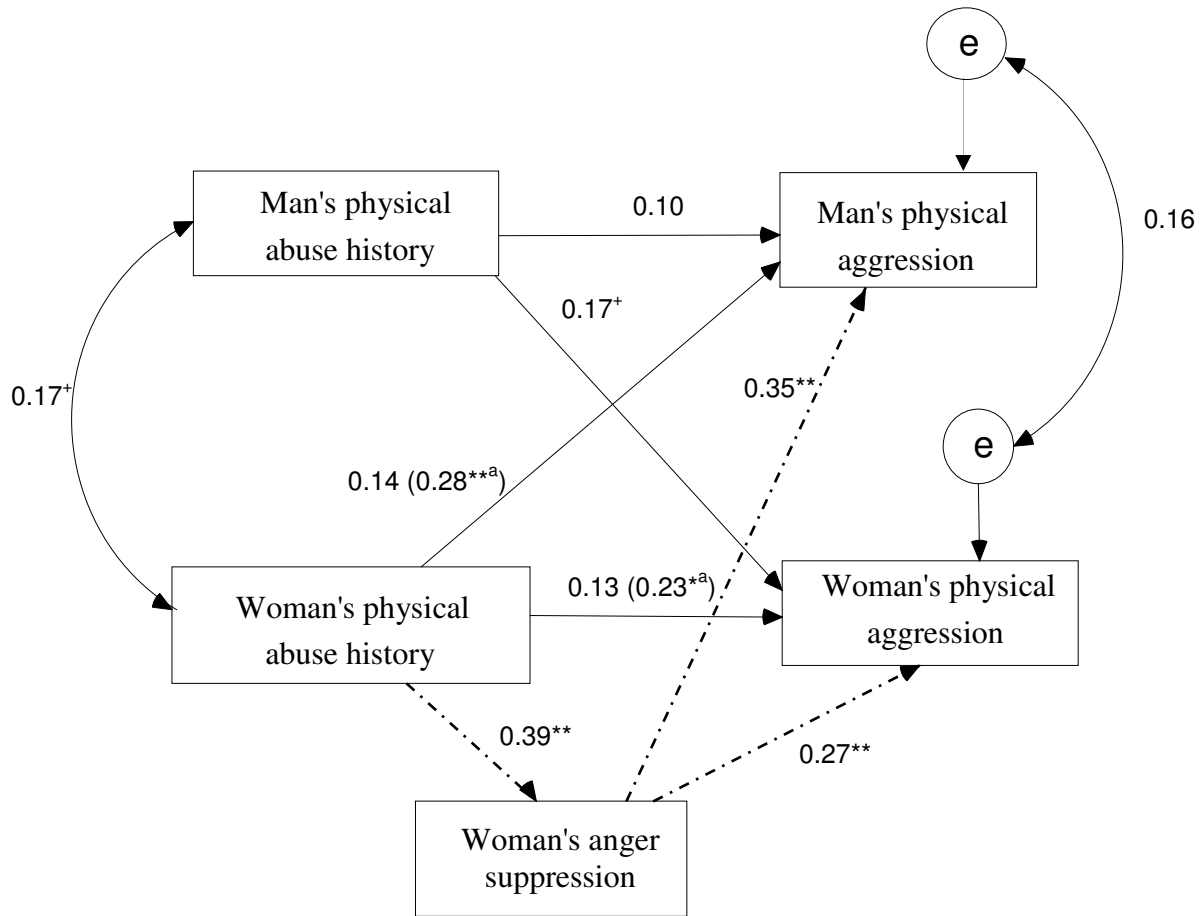
Figure 2. Estimated actor and partner standardized effects of childhood physical abuse predicting intimate partner aggression with woman's brewing anger as a mediator

Figure 1.



Note: solid lines represent the unmediated APIM and dashed lines represent the mediated APIM

Figure 2.



Note: figure presents standardized coefficients.

⁺ $p < .10$; * $p < .05$; ** $p < .01$

^a = path coefficient without mediation