5-2017

Emotion Regulation Moderates the Relation between Family-of-Origin Violence and Intimate Partner Violence in Men Arrested for Domestic Violence

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Abstract

Family-of-origin violence (FOV) is a well-established, distal predictor of intimate partner violence (IPV). However, not all individuals with a history of FOV report a history of IPV perpetration in adulthood. Additional research is warranted to elucidate potentially malleable factors that could advance prevention and intervention efforts. Emotion regulation is one such factor which has gained substantial attention as a protective factor for IPV which may moderate the association between FOV and IPV. The current study investigated emotion regulation as a moderator of the relationship between FOV and IPV (i.e., psychological aggression and physical assault) among men who were arrested for domestic violence and court-ordered to batterer intervention programs (BIPs). It was hypothesized that FOV (both inter-parental and parent-to-child) and IPV perpetration (i.e., psychological aggression and physical assault) would be positively related for men with low, but not high, levels of emotion regulation skills. In partial support of this hypothesis, exposure to inter-parental FOV was positively related to psychological aggression perpetration in men who reported low, but not high, levels of emotional regulation. Emotion regulation did not moderate the relation between inter-parental FOV and physical assault, or the relation between parent-to-child FOV and either psychological aggression or physical assault. These findings suggest that bolstering emotion regulation skills among men who perpetrate IPV could reduce the likelihood of psychological aggression perpetration.

Keywords: intimate partner violence, perpetration, emotion regulation, family-of-origin violence, domestic violence

Emotion Regulation Moderates the Relation between Family-of-Origin Violence and Intimate Partner Violence in Men Arrested for Domestic Violence

Intimate partner violence (IPV), defined here as partner-directed psychological aggression (e.g. yelling, threatening, or name calling) and physical assault (e.g. slapping, hitting, or choking), is a growing public health concern. According to the National Intimate Partner and Sexual Violence Survey in 2010, 48.4% of women in the United States experienced one or more acts of psychological aggression by an intimate partner during their lifetime. An estimated 24.3% of women experienced severe physical violence by an intimate partner in their lifetime (Black et al., 2010). Additionally, more severe violence perpetration is often observed in samples of men arrested for domestic violence (Markowitz, 2001; Klein, 2009; Hamby, 2014). Women victimized by IPV experience a myriad of adverse health problems, including mental health symptoms, suicidality, substance misuse, and posttraumatic stress disorder (Roos, Fouche, & Stein, 2016; Ulloa & Hammett, 2016). Moreover, efforts to reduce recidivism through batterer intervention programs (BIPs) have proven to be largely ineffective, underscoring the necessity for continuing research that could provide further insight into the ways in which clinicians and researchers could intervene with this serious public health concern (Feder & Wilson, 2005). In an effort to inform intervention efforts, the present study aimed to elucidate the relations among well-established IPV correlates, namely, emotion regulation and exposure to violence in one's family of origin. Specifically, we investigated emotion regulation as a moderator of the relationship between family-of-origin violence (FOV) and IPV among men arrested for DV and court-ordered to attend BIPs.

Family-of-Origin Violence and IPV

FOV is defined as exposure to child maltreatment (e.g., child psychological, physical or sexual abuse, and neglect) and/or inter-parental IPV before age 18 (Temple, Shorey, Tortolero, Wolfe, & Stuart, 2013). Research grounded in social learning theory (Bandura, 1977) supported exposure to FOV as a predictor of IPV in adulthood (Langhinrichsen-Rohling et al., 2004). Referred to as the intergenerational transmission of violence, research consistently suggested that individuals who are raised in a violent home are more likely to perpetrate IPV later in life (Schumacher, Feldbau-Kohn, Slep, & Heyman, 2001; Abbey, Zawacki, Buck, Clinton, & McAuslan, 2004; Fritz et al., 2012). In an effort to account for the association between violence exposure in childhood and later perpetration of IPV, researchers investigated attitudes and beliefs about violence that children may acquire from such experiences. Children who have parents who engaged in, and endorsed, violence towards their partner may acquire violence-affirming attitudes in a way that may facilitate violence in their adult relationships (Markowitz, 2001; Carr & VanDeusen, 2002). Furthermore, children who witnessed violence in the home often exhibited limited capacities to resolve conflict, and increased inclination to utilize violence themselves (Jaffe, Hurley, & Wolfe, 1990). These patterns are especially evident among males as boys who witness FOV often learn violence to be an effective, suitable method of conflict control and resolution (Heise, 1998).

A number of studies extended this research to men arrested for domestic violence. For instance, Murrell, Christoff, & Henning (2007) found that increased exposure to FOV related to increased severity and frequency of adulthood IPV among men arrested for domestic violence. Furthermore, Elmquist et al. (2016) reported that child maltreatment perpetrated by one's mother and father related to adulthood IPV among a sample of men arrested for domestic violence.

These relationships were fully mediated by hostility (Elmquist et al., 2016). Despite the associations between attitudes and experiences related to FOV and later IPV, some research found these associations to be only moderate, suggesting that FOV is neither necessary nor sufficient in predicting IPV in adulthood (Black et al., 2010). Indeed, a significant proportion of children from violent homes do not become violent in adulthood and not all IPV perpetrators report histories of FOV (Markowitz, 2001; Lichter, & McCloskey, 2004). This lack of causality could be explained by more distal factors (e.g. traits) that diminish the likelihood IPV (Leonard, 1993). Investigating factors that interfere with the FOV-IPV link would further elucidate the development of IPV in adulthood and inform intervention efforts.

Emotion Regulation and IPV

Emotion regulation is defined as the awareness of one's emotions, the ability to control impulsive behavior when undergoing negative emotions, and the use of strategies to modulate emotions (Gratz & Roemer, 2004). Poor emotion regulation is related to various aversive consequences such as substance abuse, risky or addictive sexual behavior, and psychopathology, including personality disorders (Gross & Levenson, 1993; Gross, 2002; Cashwell et al., 2017; Weiss et al., 2017). Recent research investigated emotion regulation in relation to various forms of aggression, including IPV among men arrested for domestic violence (Bliton et al., 2016; Gardner, Moore, & Dettore, 2014; Ross, 2011; Shorey et al., 2015). Gross' emotion dysregulation theory (EDT; 2002, 2008) proposed that emotion dysregulation can result in at-risk personality characteristics for a multitude of personal, emotional, and mental health issues, including IPV . Research grounded in EDT and the Anger Avoidance Model of violence suggested that aggression broadly and IPV specifically may result from limited capacities to understand, modulate, and tolerate aversive emotional experiences (e.g., anger; Gross, 2004,

2008; Gardner et al., 2014). In an effort to escape or modulate the experience of unpleasant negative affect, individuals may engage in IPV. Consistent with EDT, poor emotion regulation skills increase the likelihood of impulsivity and use of poor coping strategies (e.g., substance use), both of which increase the likelihood of IPV perpetration (Shorey, Brasfield, Febres, & Stuart, 2011; Katz, Stettler, & Gurtovenko, 2015).

Indeed, research among non-clinical samples of college students revealed that emotion regulation negatively related to IPV perpetration (Bliton et al., 2016), even in the presence of negative affect (e.g. hostility; Shorey et al., 2015). Furthermore, qualitative data collected from men in detention for perpetrating domestic violence revealed that violent episodes may have been motivated by an effort to modulate aversive affect (e.g., jealousy; Nemeth, Bonomi, Lee, & Ludwin, 2012). Taken together, these findings support higher levels of emotion regulation skills as a protective factor for IPV. It is plausible that emotion regulation may be a potentially malleable factor that may help reduce the likelihood that IPV will occur, even among men with a history of FOV.

Despite the negative relationship between emotion regulation and IPV perpetration, it is unclear whether higher levels of emotion regulation attenuate the relationship between more distal risk factors of IPV (i.e., FOV) and IPV perpetration. As no known research has examined this hypothesis among men arrested for domestic violence, investigating this relationship within male perpetrators of IPV will inform intervention efforts to reduce IPV incidence among domestic violence offenders.

Summary and Hypotheses

In summary, research regarding emotion regulation is substantial and growing, but exploration regarding its interaction in the relationship between FOV and IPV in violent

perpetrators is lacking. Both theory and research suggest that FOV is associated with increased IPV perpetration in adulthood (Ross, 2011; Bliton et al., 2016), and that individuals who have well-developed emotion regulation capacities may be less likely to perpetrate IPV (Schumacher et al. 2001; Fritz et al., 2012). Thus, the purpose of the current study was to examine whether higher levels of emotion regulation attenuate the relationship between FOV (i.e., inter-parental and parent-to-child violence) and IPV (i.e., psychological aggression and physical assault) among men arrested for domestic violence and court-referred to attend BIPs. Based on existing empirical and theoretical evidence, it was hypothesized that:

1. Exposure to parent-to-child FOV would positively relate to IPV perpetration (i.e., psychological and physical) among men with low, but not high, levels of emotion regulation skills.

2. Exposure to inter-parental FOV would positively relate to IPV perpetration (i.e., psychological and physical) among men with low, but not high, levels of emotion regulation skills.

Method

Participants

A sample of 237 men who were arrested for domestic violence and court-ordered to attend BIPs in Rhode Island was recruited for this study. Participant mean age was 34.25 (*SD* = 10.61) years old. The majority of the sample identified as Caucasian (68.1%), followed by African American/Non-Hispanic (13.0%), Hispanic/Latino (9.4%), “Other” (4.7%), American Indian or Alaskan Native (1.9%), and Asian or Pacific Islander (1.9%). The employment status of the sample was employed (66.4%), unemployed and looking for work (16.5%), unable to work (7.6%), unemployed and not looking for work (4.5%), retired (1.8%), homemaker (1.6%),

student (.8%), and unreported (.8%). The mean income was $29,702 (*SD* = $31,605). The mean relationship length was 5.69 years (*SD* = 6.27). Prior to data collection, men completed an average of 10.02 (*SD* = 6.86) BIP sessions.

Procedure

Each BIP site administered forty-hour, outpatient, open-enrollment group interventions with similar intervention content. Participants provided informed consent to participate in the study prior to completing paper-and-pencil questionnaires in small groups during a BIP session; no compensation was provided. The institutional review board of the last author approved the procedures for the study. All questionnaire responses were confidential and not shared with BIP facilitators or the justice system.

Measures

Demographic Questionnaire. Participants reported demographic information including age, gender, employment status, race/ethnicity, relationship length, income, and number of BIP sessions completed.

IPV Perpetration. Participants completed the 20 perpetration items of the Psychological and Physical Assault subscales of the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996; Straus, Hamby, & Warren, 2003) to assess IPV perpetration in the year prior to BIP entry. Responses to the items ranged from 0 (*this never happened*) to 6 (*more than 20 times*). Total subscale scores were calculated by adding the midpoint for each item response (e.g., a "4" for the response "3–5 times"), with higher scores representing more frequent IPV perpetration. The Psychological Aggression and Physical Assault subscales of the CTS2 demonstrated adequate internal consistency across studies and are widely used as measures of IPV in offender samples (Straus et al., 1996; Straus, Hamby, & Warren, 2003; Stuart

et al., 2016). The subscales demonstrated adequate reliability in the present study for physical assault perpetration (α = .78) and psychological aggression perpetration (α = .84).

FOV Exposure. Family-of-Origin Violence was assessed using 4 items adapted from Child–Parent Conflict Tactics Scale (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Participants reported how often they observed physical violence between their parents and how often they were victimized by physical violence by their parents. Two items assessed inter-parental violence (i.e., mother/female caregiver to father/male caregiver, and father/male caregiver to mother/female caregiver; α = .64) and two items assessed parent-to-child violence (i.e., mother to child, and father to child; α = .67). The FOV Exposure measure has been used to assess FOV among individuals who perpetrate IPV (Elmquist, et al., 2016).

Emotion Regulation. Emotion regulation capability was assessed using the Difficulties with Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). Participants completed 36 items that assessed non-acceptance of emotional responses, difficulties engaging in goal directed behavior, impulse control difficulties, emotional awareness, limited access to emotion regulation strategies, and emotional clarity. Responses to the items ranged from 1 (*almost never*) to 5 (*almost always*). Eleven items were reverse coded. Responses to items are summed such that higher total scores are indicative of greater difficulty regulating emotions. The DERS demonstrated good psychometric properties among male offenders (Roberton, Daffern, & Bucks, 2015), and had good internal consistency in the present sample (α = .92).

Results

Description Analyses

Table 1 displays the means, standard deviations, and correlations for the study variables. Eighty-seven percent of men endorsed perpetrating at least one act of psychological aggression

in the year prior to BIP entry. A majority (53.2%) of men endorsed perpetrating physical assault in the year prior to BIP entry.

Moderation Analyses

Tables 2 and 3 display regression results. Hypothesis 1 was not supported. Results of a two-way interaction between emotion dysregulation and parent-to-child FOV predicting psychological aggression revealed the overall model fit was significant. However, the addition of the interaction term did not contribute to a significant increase in R^2. There was a significant main effect for both parent-to-child FOV ($\beta = .19$, $p = .00$) and emotion dysregulation ($\beta = .27$, $p = .00$) such that exposure to parent-to-child FOV and difficulty with emotion regulation positively related to psychological aggression perpetration.

Results of a two-way interaction between emotion dysregulation and parent-to-child FOV predicting physical assault revealed the overall model fit was not significant. The addition of the interaction term did not contribute to a significant increase in R^2. There was a significant main effect for emotion dysregulation such that difficulty with emotion regulation positively related to physical assault perpetration ($\beta = .39$, $p = .00$). The main effect for parent-to-child FOV was not significant ($\beta = -.05$, $p = .45$).

Hypothesis 2 was partially supported. Results of a two-way interaction between emotion dysregulation and inter-parental FOV predicting psychological aggression revealed the overall model fit was significant. The addition of the interaction term ($\beta = .13$, $p = .04$) contributed to a significant increase in R^2. Explication of the interaction revealed that inter-parental FOV positively related to psychological aggression perpetration scores for men with low, but not high, levels of emotion regulation skills. See Figure 1 for a visual depiction of the interaction.

In contrast, results of a two-way interaction between emotion dysregulation and inter-parental FOV predicting physical assault revealed the overall model fit was significant; however, the addition of the interaction term did not contribute to a significant increase in R^2. There was a significant main effect for emotion dysregulation such that difficulty with emotion regulation positively related to physical assault perpetration (β = .39, p = .00). The main effect for inter-parental FOV was not significant (β = -.04, p = .50).

Discussion

In partial support of the hypothesis, the results of the present study demonstrated that exposure to inter-parental FOV was positively related to psychological aggression perpetration in men who reported low, but not high, levels of emotional regulation. Emotion regulation did not moderate the relation between inter-parental FOV and physical assault, or the relation between parent-to-child FOV and either psychological aggression or physical assault. There was significant main effect for emotion regulation, but not inter-parental or parent-to-child FOV, in predicting men's physical assault. The main effects of emotion regulation and parent-to-child FOV were significant in predicting men's psychological aggression.

That emotion regulation consistently related to IPV across models in the present study is consistent with existing theory and research (Ross, 2011; Shorey et al., 2011, 2015). Indeed, research grounded in EDT would suggest that IPV perpetration may be facilitated, in part, by limited capacities to identify and modulate affective experience (Gross, 2004, 2008; Gardner et al., 2014). Furthermore, it follows that men with limited access to adaptive emotion regulation strategies in the context of negative affect would be more likely to perpetrate IPV. Results of the present study extended this line of research by suggesting that the relation between exposure to inter-parental violence and men's psychological aggression perpetration is strengthened by poor

emotion regulation skills. Given these results, it is plausible that men who have histories of exposure to inter-parental violence will be more likely to perpetrate IPV in adulthood if more adaptive emotion regulation strategies are not developed.

In contrast to hypotheses, emotion regulation did not interact with inter-parental violence exposure to predict physical assault, nor did it interact with parent-to-child violence to predict psychological or physical IPV. Furthermore, the associations between FOV and IPV were not as strong as would be expected based on previous research (Langhinrichsen-Rohling et al., 2004). Across models, results suggest that examination of men's emotion regulation capacities may be a better predictor of IPV than other distal factors, such as FOV. One possible explanation for these findings is that the FOV measure used may not adequately capture all of the dimensions of FOV. Alternatively, it is plausible that FOV exposure facilitates poor emotion regulation (Banford, Brown, Ketring, & Mansfield, 2015), which may then have a more proximal association with IPV in adulthood. Future research is needed to investigate the extent to which emotion regulation is a mediator of the association between FOV and IPV among men arrested for domestic violence. It should be noted that while FOV and emotion regulation did not interact to predict physical IPV, psychological aggression is a robust correlate of physical IPV (Stuart et al., 2006), which suggests that increasing emotion regulation may interfere with psychological aggression perpetration, which may then hinder the likelihood that physical IPV will occur. Additional research is needed to investigate this supposition.

Limitations

These findings should be considered carefully in light of the following limitations. First, this study utilized a cross-sectional design with measures relying on retrospective self-report, which inhibits direct causation claims. Research conducted utilizing a longitudinal design would

be better suited to investigate the associations between FOV and emotion regulation in relation to IPV. Second, this study's sample was comprised of primarily Caucasian men in heterosexual relationships. This narrow representation of racial identities, genders, and sexual orientations limits the generalizability of these findings. More representative samples are needed in future studies to support the validity of these findings across said groups. Third, poor emotion regulation strategies may have developed from one's early life experiences, including exposure to violence in the household (Banford et al., 2015). Longitudinal research investigating whether emotion regulation mediates the FOV-IPV link would inform efforts to conceptualize the role of emotion regulation among men arrested for domestic violence. Finally, only approximately half of the present sample endorsed IPV within the past year despite being arrested for domestic violence. It is likely that IPV reported in the present study is underestimated; future research should supplement self-report data with partner reports and/or criminal record data to obtain a more accurate estimation of IPV perpetration rates within this population.

Clinical Implications & Future Directions

These preliminary results suggest that clinicians should assess emotion regulation capacity among men arrested for domestic violence and consider incorporating skills to address these deficits (e.g., non-acceptance of emotional responses, difficulties engaging in goal directed behavior, impulse control difficulties, emotional awareness, limited access to emotion regulation strategies, and emotional clarity) into BIPs, especially for men exposed to inter-parental FOV. Addressing deficits in emotion regulation through possible interventions such as self-regulation skill training, increased awareness through counseling, and mindfulness exercises may help to alleviate problematic behavior and improve treatment outcomes. Indeed, previous treatments that target emotion regulation (e.g., Dialectical Behavior Therapy; Linehan, 2015) have demonstrated

efficacy in reducing violent behavior (Shelton, Sampl, Kesten, Zhang, & Trestman, 2009). Given the limited efficacy of BIPs (Feder & Wilson, 2005; Stuart, Temple, & Moore, 2007), future research should determine whether increases in emotion regulation reduce the likelihood of IPV as well as other maladaptive coping strategies that commonly co-occur with IPV (e.g., alcohol use) among men with histories of FOV (Shorey et al., 2015).

Conclusion

This study advances the understanding that emotion regulation is a protective factor for IPV that may reduce the likelihood of psychological aggression perpetration among men with a history of FOV, particularly, inter-parental violence exposure. These findings signify the importance of assessing emotion regulation capability among IPV perpetrators attending BIPs, especially in perpetrators with a history of FOV. Future research is imperative to further our understanding, treatment, and improvement of emotion dysregulation in IPV offenders.

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Table 1

Means, standard deviations, and correlations between variables.

Variables	*M*	*SD*	1	2	3	4	5
1. Inter-parental Violence	10.15	24.64	---				
2. Parent-to-Child Violence	13.23	29.65	.64*	---			
3. DERS	81.57	21.39	.12	.10	---		
4. Psychological Aggression	33.40	32.91	.20*	.22*	.28*	---	
5. Physical Assault	7.77	16.91	.01	.00	.36*	.51*	---

Note. Inter-parental Violence = total exposure to inter-parental violence; Parent-to-Child Violence = total exposure to parent-to-child violence; DERS = Difficulties in Emotion Regulation Scale total score

*$p < .01$.

Table 2
Hierarchical regression analyses predicting psychological aggression and physical assault perpetration

	Physical Assault				Psychological Aggression			
Predictor	*R2*	ΔR2	*β*	*F*	*R2*	ΔR2	*β*	*F*
Step 1	.15			20.44***	.12			15.95***
Parent-to-Child FOV			-.05				.19**	
Emotion Regulation			.39***				.27***	
Step 2	.16	.01		14.78	.13	.01		11.21***
Parent-to-Child FOV			-.03				.19**	
Emotion Regulation			.39***				.27***	
Parent-to-Child FOV x Emotion Regulation			-.11				-.08	

Note. All continuous variables are centered.
*$p < .05$, **$p < .01$; *** $p < .001$

Table 3
Hierarchical regression analyses predicting psychological aggression and physical assault perpetration

	Physical Assault				Psychological Aggression			
Predictor	*R2*	ΔR2	*β*	*F*	*R2*	ΔR2	*β*	*F*
Step 1	.15			20.28***	.11			14.72***
Inter-parental Violence			-.04				.16**	
Emotion Regulation			.39***				.27***	
Step 2	.16	.01		14.18***	.12	.02		11.38***
Inter-parental Violence			-.02				.14*	
Emotion Regulation			.39***				.27***	
Inter-parental Violence x Emotion Regulation			-.08				.13*	

Note. All continuous variables are centered.
*$p < .05$, **$p < .01$; *** $p < .001$

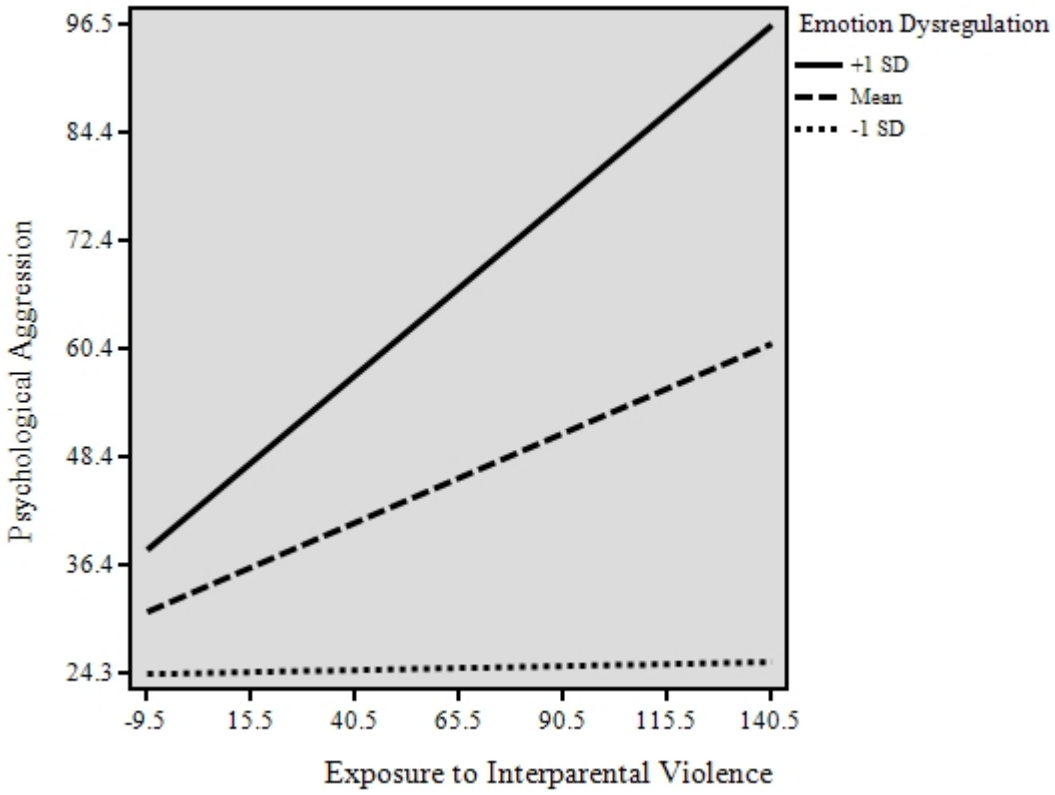

Figure 1. Exposure to inter-parental violence related to men's psychological aggression perpetration at high and mean, but not low, levels of emotion dysregulation.