

Marital Aggression Predicts Infant Orienting Toward Mother at Six Months

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Abstract:

Links between marital aggression and infant orienting toward mother in fearful and frustrating contexts were examined in 92 mother–infant dyads when infants were six months. Results demonstrated that marital aggression was linked with less orienting toward mothers in frustrating situations, in fearful situations marital aggression was linked with less orienting among infants who were high on fear reactivity only.

Keywords: Marital aggression | Infant visual orienting | Infant emotion regulation | Infant temperament

Article:

Marital conflict and aggression have consistently been linked with the social-emotional adjustment of children (Cummings & Davies, 2010), but less is known about the impact of marital dynamics on infant adjustment. One infant outcome of interest is emotion regulation, which during infancy is generally regarded as occurring at the level of the dyad as infants must rely on caregivers for assistance in the regulation of their emotions (Calkins, 2010). The extent to which infants orient toward or reference their mother during times of ambiguity or distress may be particularly important for infant social and emotional outcomes because it helps infants appraise and understand the situation, places a potential source of comfort within view, and signals the need for maternal intervention. Indeed, infants who look at their mothers more frequently during such tasks demonstrate reductions in negative arousal in the moment and more adaptive regulatory behaviors and fewer behavioral problems in the long-run, and are more likely to have a secure attachment with their mother (Braungart and Stifter, 1991, Crockenberg and Leerkes, 2004, Crockenberg and Leerkes, 2006 and Siepak, 2008). Marital aggression is conceptualized as the expression of verbal or physical hostility in the context of marital conflict.

Indicators include yelling, name-calling, and threatening physical harm to one's partner. Marital conflict is not always characterized by aggression, and children react more negatively to aggressive marital conflict than to conflict characterized by more adaptive strategies to resolve disagreements (Cummings and Davies). Therefore, the purpose of the current study is to consider links between marital aggression and infant orienting to mother during fearful and frustrating contexts.

Previous research examining links between marital aggression and infant regulation strategies is limited. Emerging evidence suggests that marital conflict in general is negatively associated with adaptive infant regulation strategies (Porter, Wouden-Miller, Silva, & Porter, 2003) and marital aggression specifically is positively associated with maladaptive infant regulation strategies, in particular infant withdrawal from a novel stimulus (Crockenberg, Leerkes, & Lekka, 2007). More recently, research suggests that infants exposed to marital conflict rely on their mothers less for assistance in the regulation of their emotions (Moore, 2010). During the still-face procedure, infants who are exposed to more marital conflict tend to experience more atypical vagal regulation characterized by less vagal withdrawal during mother disengagement and heightened vagal withdrawal during mother interaction suggesting that infants exposed to more marital conflict self-regulate more when they interact with their mothers than other infants (Moore). Marital conflict thus appears to promote independent self-regulatory strategies at the physiological level, and consequently may reduce the likelihood of orienting towards caregivers during times of distress. In contrast, paternal marital satisfaction is positively associated with infant visual referencing towards mothers and fathers when infants are approached by a stranger (Dickstein & Parke, 1988). Because significant associations between fathers' marital satisfaction and infant visual referencing to mothers were found in this previous work, it is important to examine both mothers' and fathers' marital aggression as predictors of infant orienting to mothers during times of distress. Marital aggression may influence the development of infant regulatory strategies, specifically mother focused strategies, regardless of the parent exhibiting such behaviors.

Infants who are easily frightened may be particularly susceptible to the negative influence of marital aggression on orienting toward mother. Marital conflict characterized by loud and unpredictable noises, a hallmark of marital aggression, is thought to elicit a fear response among infants (Owen & Cox, 1997). Infants who are highly fearful may be particularly distressed during aggressive marital conflict and in greatest need of external assistance. They may look toward their mother less in frightening situations over time both because they have learned they are unlikely to receive needed assistance from her and also perhaps because they believe looking at their mother might heighten their distress given their prior experiences during interparental conflict. Less easily frightened infants may not have formed these negative expectations if they are less distressed by interparental conflict. Therefore, infant fear reactivity is expected to exacerbate associations between marital aggression and infant orienting towards mother during distressing situations. Associations between marital aggression and orienting towards mother are

expected to be moderated by infant exposure to marital conflict as well. Parents who do not argue in front of their children may buffer their infants from the negative influence of marital aggression on the development of early regulatory strategies, namely orienting towards mother during distress because they shield their infants from this potential stressor. Indeed, links between marital aggression and infant withdrawal from novelty were stronger among infants who were exposed to marital conflict than among infants who were not exposed to conflict (Crockenberg et al., 2007). Thus, it is expected that negative associations between marital aggression and infant orienting towards mother will be exacerbated by infant exposure to marital conflict.

The sample consisted of 92 mothers and their infants. Mothers ranged in age from 16 to 37 years ($M = 28.36$, $SD = 4.65$) and the majority were white (75%) or African American (17%). Seventy percent of mothers had at least a Bachelor's degree. Family income ranged from \$6000 to \$190,000 ($M = \$70,262$, $SD = \$35.37$). Eighty-three percent of mothers were married, 10% were cohabiting, and 7% were dating.

At six months postpartum, infants engaged in two tasks adapted from Goldsmith and Rothbart (1996), one to elicit fear (loud and unpredictable toy) and one to elicit frustration (arm restraint). Each task lasted 4 min, during the first minute mothers were instructed to remain uninvolved, during the last 3 min mothers were allowed to interact with their infants as they wished. During the *fear task* a remote-control truck was placed on a wooden table in front of the infant. The truck approached the infant, made a series of loud sounds with flashing lights, and then backed away from the infant. This sequence of movements was repeated three times over the first 3 min of the task. During the last minute of the task the truck was turned off but remained within reach of the infant. During the *frustration task*, the infant's forearms were gently held down by the experimenter. Throughout this task the experimenter held her head down and did not interact with the infant. Infant gaze (look at stimulus, look away from stimulus, eyes closed, and look at mother) was continuously coded during each of the tasks using the Observer 5.0 (Noldus Information Technology, Wageningen, The Netherlands) and inter-rater reliability was calculated based upon 22 double coded tapes ($Kappa = .85$). The percent of time that infants looked at their mothers was calculated separately for each task.

Prior to the observation, mothers completed the Conflict and Problem-Solving Scales (CPS; Kerig, 1996) to assess the frequency with which they and their partners utilize aggressive strategies to resolve marital conflict. Nineteen items compose the aggression subscale for women reporting on self ($\alpha = .90$) and on partner ($\alpha = .88$). One item from the CPS was used to capture the frequency with which parents argue in front of their children. Mothers also completed the fear subscale (16 items; $\alpha = .87$) of the Infant Behavior Questionnaire-Revised (Gartstein & Rothbart, 2003) to assess perceptions of infant fear reactivity.

Descriptive statistics and simple correlations between the variables of interest are displayed in Table 1. Multiple regression was used to examine associations between marital aggression and

infant orienting towards mother, and also to test the moderating effects of infant fear reactivity and infant exposure to marital conflict. As illustrated in the Main Effects Models in Table 2, both mothers' and fathers' marital aggression were negatively associated with orienting towards mother during the frustration task. In contrast, neither mothers' nor fathers' marital aggression were associated with orienting towards mother during the fear task. As illustrated in the Moderation Effects Models in Table 2, a significant interaction emerged between mothers' marital aggression and infant fear reactivity in the prediction of infant orienting towards mothers during the fear task. Mothers' marital aggression was associated with less orientation toward mother during the fear task only when infant fear reactivity was high ($B = -.07$, $SE = .03$, $p < .05$). When infant fear reactivity was average or low, marital aggression was not associated with orienting towards mother ($B = -.03$, $SE = .02$, ns and $B = .00$, $SE = .03$, ns , respectively). Associations between marital aggression and orienting towards mother did not vary based upon exposure to conflict.

Table 1. Descriptive statistics and correlations among primary variables.

	1	2	3	4	5	6
1. Mothers' marital aggression	–					
2. Fathers' marital aggression	.84***	–				
3. Infant fear reactivity	.14	.18*	–			
4. Infant exposure to conflict	.63***	.59***	.04	–		
5. Fear look at mother	-.14	-.15	.12	-.02	–	
6. Frustration look at mother	-.21**	-.29***	.06	-.23**	.19*	–
<i>M</i>	.00	.00	-.10	.00	.09	.19
<i>SD</i>	.43	.41	.72	.80	.07	.12

* $p < .10$.

** $p < .05$.

*** $p < .01$.

Table 2. Multiple regressions predicting infant look at mother.

	During frustration						During fear					
	Mother aggression			Father aggression			Mother aggression			Father aggression		
	<i>B</i>	<i>SE(B)</i>	β	<i>B</i>	<i>SE(B)</i>	β	<i>B</i>	<i>SE(B)</i>	β	<i>B</i>	<i>SE(B)</i>	β
Main Effects Models												
Marital aggression	-.06	.03	-.21**	-.09	.03	-.29***	-.02	.02	-.14	-.03	.02	-.15
<i>R</i> ²	.05			.09			.02			.01		
Moderation Effects Models												
Marital aggression	-.04	.02	-.14	-.08	.04	-.27**	-.03	.02	-.18	-.04	.03	-.23*
Fear reactivity	.01	.02	.09	.02	.02	.14	.01	.01	.15	.02	.01	.16
Infant exposure	-.02	.02	-.16	-.01	.02	-.09	.01	.01	.10	.01	.01	.14
Mar Agg × Reactivity	.00	.04	.00	.00	.04	.01	-.04	.02	-.22**	-.02	.02	-.09
Mar Agg × Exposure	.01	.04	.04	.02	.05	.05	-.02	.02	-.13	-.03	.03	-.13
Total <i>R</i> ²	.07			.11			.09			.07		

* $p < .10$.

** $p < .05$.

*** $p < .01$.

The purpose of the current study was to examine associations between marital aggression and infant orienting towards mother when infants are faced with a fearful or frustrating context. Consistent with expectation, both mothers' and fathers' marital aggression were negatively associated with infant orienting towards mother during the frustration task. Infants whose parents used more aggressive strategies to resolve marital conflict looked at their mothers less when they were faced with frustration, regardless of infant fear reactivity or infant exposure to marital conflict. Previous research has revealed that by ten weeks of age infants begin to recognize and

mimic anger expressed by their mothers (Haviland & Lelwica, 1987) and “emotional contagion” occurs in infancy when infants match the emotional state experienced by their caregivers (Saarni, Mumme, & Campos, 1998). If infants experience anger distress during interparental conflict that is characterized by aggression and their mothers are non-responsive or negative in response, infants may learn they cannot rely on their mothers for regulatory assistance during times of anger or frustration and may turn to them for support less.

That marital aggression was linked with less infant orienting to mother during the fear context only among infants who were high on fear reactivity may indicate that easily frightened infants are particularly likely to experience fear during marital conflict (Owen & Cox, 1997). If mothers are non-responsive or negative in response to these infants’ fear cues, over time these infants may begin to rely on their mothers less for assistance in the regulation of their fear. That this effect occurred only for the influence of mothers’ marital aggression and not fathers’ warrants explanation. Perhaps because mothers generally undertake the majority of childcare tasks, as has been previously demonstrated in this sample (Leerkes & Burney, 2007), infants rely on their mothers more than on their fathers for assistance in the regulation of their emotions. It is also possible that yelling associated with mothers’ marital aggression is more frightening to infants than yelling associated with fathers’ aggression. Because fathers engage in more vigorous forms of play with their infants than do mothers (Yogman, 1994), infants may be more accustomed to loud and startling interactions with their fathers than their mothers.

Infant exposure to marital conflict did not moderate associations between marital aggression and infant orienting towards mother during distressing situations. This finding was inconsistent with prior literature documenting that infant exposure to marital conflict exacerbates associations between aggression and infant withdrawal from novelty (Crockenberg et al., 2007). The large correlations between marital aggression and infant exposure to marital conflict indicate that most parents who engaged in high levels of marital aggression also reported high levels of infant exposure to marital conflict. Thus, few infants in the current sample had low levels of exposure to high levels of aggression undermining the ability to detect an interaction effect if one exists.

Results of the current study fill an important gap in the literature by revealing links between marital aggression and infant orienting towards the mother in fearful and frustrating contexts; however, there are a number of important avenues for further research. It will be important to attempt to replicate these findings using observational assessments of marital conflict to determine if observed interaction patterns have a similar effect on the development of infant regulation. Multi-informant measures of marital aggression utilizing both mother and father report would be superior as well. Furthermore, the use of a single item measure to assess infant exposure to marital conflict is a limitation. Daily diary methods to capture infant exposure to marital conflict may be a more valid assessment of infant exposure to conflict. Future research should also directly examine the process by which marital aggression influences infant regulation strategies. It is possible that parental responses to infant distress during or immediately following marital conflict, or generally compromised maternal sensitivity, mediate links between marital

aggression and infant orienting towards mother during times of stress. Regardless, the current study adds to the accumulating evidence supporting the important role of interparental conflict for the development of infant regulation.

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References

- Braungart, J. M., & Stifter, C. A. (1991). Regulation of negative reactivity during the strange situation: Temperament and attachment in 12-month old infants. *Infant Behavior and Development*, 14, 349–364.
- Calkins, S. D. (2010). Commentary: Conceptual and methodological challenges to the study of emotion regulation and psychopathology. *Journal of Psychopathology and Behavioral Assessment*, 32, 92–95.
- Crockenberg, S. C., & Leerkes, E. M. (2004). Infant and maternal behaviors regulate infant reactivity to novelty at 6 months. *Developmental Psychology*, 40, 1123–1132.
- Crockenberg, S. C., & Leerkes, E. M. (2006). Infant and maternal behavior moderate reactivity to novelty to predict anxious behavior at 2.5 years. *Development and Psychopathology*, 18, 17–34.
- Crockenberg, S. C., Leerkes, E. M., & Lekka, S. K. (2007). Pathways from marital aggression to infant emotion regulation: The development of withdrawal in infancy. *Infant Behavior and Development*, 30, 97–113.
- Cummings, E. M., & Davies, P. T. (2010). *Marital conflict and children: An emotional security perspective*. New York: The Guilford Press.
- Dickstein, S., & Parke, R. D. (1988). Social referencing in infancy: A glance at fathers and marriage. *Child Development*, 59, 506–511.
- Gartstein, M. A., & Rothbart, M. K. (2003). Studying infant temperament via the revised infant behavior questionnaire. *Infant Behavior and Development*, 26, 64–86.

Goldsmith, H. H., & Rothbart, M. K. (1996). The laboratory temperament assessment battery (Prelocomotor version 3.0). Madison: University of Wisconsin. Unpublished manuscript.

Haviland, J. M., & Lelwica, M. (1987). The induced affect response: 10-week-old infants' responses to three emotion expressions. *Developmental Psychology*, 23, 97–104.

Kerig, P. K. (1996). Assessing links between interparental conflict and child adjustment: The conflict and problem-solving scales. *Journal of Family Psychology*, 10, 454–473.

Leerkes, E. M., & Burney, R. V. (2007). The development of parenting efficacy among new mothers and fathers. *Infancy*, 12, 45–67.

Moore, G. A. (2010). Parent conflict predicts infants' vagal regulation in social interaction. *Development and Psychopathology*, 22, 23–33.

Owen, M. T., & Cox, M. J. (1997). Marital conflict and the development of infant–parent attachment relationships. *Journal of Family Psychology*, 11, 152–164.

Porter, C. L., Wouden-Miller, M., Silva, S. S., & Porter, A. E. (2003). Marital harmony and conflict: Links to infants' emotional regulation and cardiac vagal tone. *Infancy*, 4, 297–307.

Saarni, C., Mumme, D. L., & Campos, J. (1998). Emotional development: Action, communication, and understanding. In N. Eisenberg (Ed.) & W. Damon (Series

Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 237–309). New York: Wiley.

Siepak, K. J. (2008). Longitudinal influences of maternal sensitivity on infant temperamental reactivity and emotion regulation. Unpublished Doctoral Dissertation. Greensboro, NC: The University of North Carolina at Greensboro.

Yogman, M. W. (1994). Observations on the father–infant relationship. In S. H. Cath, A. R. Gurwitt, & J. M. Ross (Eds.), *Father and child: Developmental and clinical perspectives* (pp. 101–122). Hillsdale: The Analytic Press.