
THE IMPACT OF DOMESTIC VIOLENCE ON MOTHERS' PRENATAL REPRESENTATIONS OF THEIR INFANTS

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ABSTRACT: This study examined the relationship between domestic violence during pregnancy and mothers' prenatal representations of their infants and themselves as mothers. Two hundred and six women were recruited from the community and interviewed during their last trimester of pregnancy. Forty-four percent of women reported experiencing domestic violence during the current pregnancy, while 56% reported no domestic violence during the pregnancy. Maternal representations were assessed using the Working Model of the Child Interview (WMCI; Zeanah, Benoit, Hirshberg, Barton, & Regan, 1994). Multiple analysis of variance (MANCOVA) and χ^2 analyses revealed that women who experienced domestic violence had significantly more negative representations of their infants and themselves as mothers and were significantly more likely to be classified as insecurely attached (either Disengaged or Distorted) than women who had not experienced domestic violence. These results, along with several excerpts from battered women's interviews, highlight the importance of domestic violence as a risk factor for maternal and infant well being. These findings and their clinical implications are discussed in light of attachment theory.

RESUMEN: Este estudio examinó la relación entre la violencia en el hogar durante el embarazo y las representaciones que las madres tienen de sus infantes antes del nacimiento, así como de ellas mismas como madres. Doscientos seis mujeres de la comunidad fueron reclutadas y entrevistadas durante el último trimestre de su embarazo. Cuarenta y cuatro por ciento de las mujeres reportaron el haber experimentado violencia en el hogar durante el actual embarazo, mientras que 56% reportó que no había habido violencia doméstica durante el embarazo. Las representaciones maternas fueron evaluadas usando el Modelo de Trabajo de la Entrevista Infantil (WMCI; Zeanah et al., 1994). Los análisis MANCOVA y Chi-Square revelaron que las mujeres que experimentaban violencia doméstica tenían significativamente más representaciones negativas de sus infantes y de ellas mismas como madres, y estaban mucho más propensas a ser clasificadas como inseguras en cuanto a la unión afectiva (ya sea no comprometida o distorsionada), que las mujeres que no habían experimentado violencia en el hogar. Estos resultados, junto con otros trozos de entrevistas con mujeres maltratadas, subrayan la importancia de la violencia doméstica como

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un factor de riesgo para el bienestar maternal y de los infantes. Estos resultados y sus implicaciones clínicas se discuten a la luz de la teoría de la afectividad.

RÉSUMÉ: Cette étude a examiné la relation entre la violence domestique durant la grossesse et les représentations prénatales que se font les mères de leurs bébés et d'elles-mêmes en tant que mères. Deux cent six mères ont été recrutées dans la communauté et interviewées durant le dernier trimestre de leur grossesse. Quarante-quatre pourcent de ces femmes ont dit avoir subi des violences domestiques durant leur grossesse actuelle, alors que 56% de ces femmes n'ont fait état d'aucune violence conjugale durant la grossesse. Les représentations maternelles ont été évaluées en utilisant le *Working Model of the Child Interview* (WMCI Zeanah et al., 1994). Les analyses MANCOVA et χ^2 ont révélé que les femmes qui font l'expérience de violence domestique ont des représentations bien plus négatives de leurs bébés et d'elles-mêmes en tant que mères et sont bien plus à même d'être classifiées comme insécurément attachées (attachement soit Désengagé ou Déformé) que les femmes qui n'avaient pas fait l'expérience de violence domestique. Ces résultats, ainsi que plusieurs extraits d'entretiens de ces femmes battues, mettent en lumière l'importance de la violence domestique comme facteur de risque pour le bien-être maternel et le bien-être du bébé. Ces résultats et leurs implications cliniques sont discutés à la lumière de la théorie de l'attachement.

ZUSAMMENFASSUNG: Diese Studie untersuchte die Beziehung häuslicher Gewalt während der Schwangerschaft und der mütterlichen, vorgeburtlichen Repräsentationen ihrer Kleinkinder und ihrer selbst als Mütter. 206 Frauen wurden aus der Gemeinde rekrutiert und im letzten Trimenon interviewt. 44% erlebten häusliche Gewalt während der jetzigen Schwangerschaft, 56% erlebten keine. Die mütterlichen Repräsentationen wurden mittels dem Arbeitsmodell Kindinterview (WMCI; Zeanah et al., 1994) erhoben. MANCOVA und χ^2 Analysen zeigten, dass Frauen, die häusliche Gewalt erlebten, signifikant mehr negative Repräsentationen ihrer Kleinkinder und ihrer selbst als Mütter hatten und signifikant eher als unsicher gebunden klassifiziert wurden (entweder wenig gebunden, oder verwirrt), als Frauen, die keine häusliche Gewalt erlebten. Diese Ergebnisse, gemeinsam mit Niederschriften aus den Gesprächen mit geschlagenen Frauen, deuten auf die Wichtigkeit der häuslichen Gewalt als einem Risikofaktor für mütterliches und kindliches Wohlfühl hin. Diese Ergebnisse und ihre klinische Bedeutung werden vor dem Hintergrund der Bindungstheorie diskutiert.

抄録：この研究では、妊娠中の家庭内暴力と、母親が出産前にもっていた乳児についてのおよび母親としての自分自身についての表象との間の関係性について、検討した。206人の女性が地域で集められ、妊娠後期に面接を受けた。44%の女性が、現在の妊娠中に家庭内暴力を経験したと報告したが、56%は妊娠中に家庭内暴力を報告しなかった。母親の表象は、子どもの作業モデル面接 **Working Model of the Child Interview (WMCI; Zeanah et al., 1994)** を用いて評価された。MANCOVA と χ^2 分析から、家庭内暴力を経験したと女性は、家庭内暴力を経験しなかった女性よりも、乳児の表象と母親としての自分自身の表象が有意に否定的であり、有意に不安定な愛着 (**Disengaged** あるいは **Distorted**) と分類されやすかった。これらの結果は、暴力を受けた女性の面接からのいくつかの引用とともに、母親と乳児の福祉にとっての危険因子としての家庭内暴力の重要性を、強調する。これらの所見と、その臨床的な意味が、愛着理論の観点から議論される。

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Despite the fact that domestic violence is such a prevalent problem, experienced by as many as 20% of pregnant women (Gazmararian et al., 1996), and that children under the age of 5 are represented disproportionately among child witnesses (Fantuzzo, Boruch, Beriama, Atkins, & Marcus, 1997), very little is known about the impact of domestic violence on mothers during pregnancy and on their young children after birth. Because the primary care-giving context is so central to infant development, it seems critical to understand how domestic vio-

lence affects women as they transition to motherhood. Thus, the present study examines the influence of domestic violence on mothers' prenatal representations of their infants and of themselves as mothers as important precursors to the mother–infant relationship. The results from this study are aimed at furthering our understanding about domestic violence as a risk factor for infants and families, as well as providing important clinical implications for those working with at-risk pregnant or postpartum women.

EFFECTS OF DOMESTIC VIOLENCE ON YOUNG CHILDREN

Surprisingly, only a small number of empirical studies have examined the impact of domestic violence on infants and young children, possibly because of the mistaken belief that young children are not as affected by violence as older individuals (Osofsky, 1999). However, previous studies have shown that preschool-age children exposed to domestic violence have more behavior problems, social difficulties, posttraumatic-stress symptoms, greater trouble developing empathy, and less-developed verbal abilities than non-witnesses (Fantuzzo et al., 1991; Graham-Bermann & Levendosky, 1998; Hinchey & Gavelek, 1982; Huth-Bocks, Levendosky, & Semel, 2001).

The little existing research with children less than 3 years of age suggests that infants and toddlers whose mothers experience domestic violence are more likely to have insecure attachments, particularly disorganized attachment (Zeanah et al., 1999), and are more likely to show posttraumatic-stress symptoms such as hyperarousal, increased fears, and aggression (Scheeringa & Zeanah, 1995). In addition, these young children may show increased irritability, sleep disturbances, and regressive behaviors (see Osofsky, 1999, for a review). Exposure to domestic violence also may impede the process of separation/individuation and autonomy, an important developmental task during this period, and may lead young children to form impressions of the world as unpredictable and dangerous (Groves, 1999; Osofsky & Fenichel, 1993). Domestic violence during a child's earliest years seems particularly insidious given that it disturbs the comfort and protective qualities that typically are considered uniquely available within the home environment and which are necessary for a young child's well being and sense of safety (Margolin, 1998). Because domestic violence often has such adverse consequences for young children, it is important to understand better how domestic violence affects mothers as they begin to form relationships with their infants, for example, through its impact on mothers' representations of their infants and themselves as caregivers during pregnancy.

MATERNAL REPRESENTATIONS DURING PREGNANCY

Clinical theorists and researchers have written extensively about mothers' developing representations during the critical time of pregnancy. In one of the earliest studies, Bibring, Dwyer, Huntington, and Valenstein (1961) discussed the psychological processes that occur during pregnancy, including those related to the "earliest mother–child relationship." They noted that pregnancy revives old psychological conflicts, reorganizes a woman's relationship with her own mother, and causes her to develop attitudes toward and representations of her developing infant. Similarly, others have noted that women gradually develop rich and specific representations of their infants as pregnancy progresses, which likely are constructed from mothers' own experiences in relationships (Leifer, 1977; Lumley, 1982; Zeanah & Carr, 1990; Zeanah, Keener, & Anders, 1986). More recently, Stern (1995) proposed that mothers' mental representations of self and others are reactivated and reworked throughout pregnancy, especially after the first trimester when the baby becomes more "real" to the mother and as women prepare

psychologically for motherhood. In particular, Stern indicated that three sets of representations are especially important for a woman during this time: (a) representations of her own mother and her own attachment experiences, (b) representations of her infant, and (c) representations of herself as a mother.

Attachment researchers have furthered this literature using semistructured clinical interviews to conduct empirical investigations of maternal representations during pregnancy and their correlates and outcomes. The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985), for example, assesses a person's representations of attachment and overall state of mind with respect to his/her own attachment experiences with caregivers. Interestingly, researchers have found consistently that women's attachment representations during pregnancy, as measured by the AAI, predict infant–mother attachment after birth (Benoit & Parker, 1994; Fonagy, Steele, Moran, Steele, & Higgitt, 1993; Fonagy, Steele, & Steele, 1991; Fonagy, Steele, Steele, Moran, & Higgitt, 1991; Levine, Tuber, Slade, & Ward, 1991; Steele, Steele, & Fonagy, 1996; Ward & Carlson, 1995). Studies such as these provide empirical support for the notion of the *intergenerational transmission of attachment*.

Several other researchers have developed similar interviews to assess women's representations of their infants and children (attachment from the parental perspective), with several of these assessing women's prenatal representations of the infant. For example, Ammaniti and colleagues (Ammaniti, 1991; Ammaniti et al., 1992) found that maternal representations of the infant and of the self as a mother during pregnancy were complementary to each other and also were related to mothers' own representations of attachment. Similarly, Slade and Cohen (1996) found that mothers in their sample conceptualized and organized their relationship with their babies during pregnancy in ways that were similar to the way mothers conceptualized their relationships with their own mothers (based on AAI responses), evidenced by the degree of flexibility, coherence, and richness in their representations.

Perhaps the most widely used interview assessing maternal representations of the infant has been the Working Model of the Child Interview (WMCI) developed by Zeanah and colleagues (Zeanah & Benoit, 1995; Zeanah, Benoit, Hirshberg, Barton, & Regan, 1994). The development of this interview was influenced by the AAI and was meant for both clinical and research purposes. It can be coded for a number of representational features, and individuals can be classified into one of three groups that parallel the organized attachment categories seen in the AAI and the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). The subscales, which assess qualitative, content, and affective features (e.g., coherence, intensity of involvement, joyful and angry affect), may be especially useful for clinical purposes. For example, Zeanah and Benoit have suggested that rather than focus on the overall classification, clinicians should look for major themes and salient affective tones of mothers' descriptions as a way of understanding individual differences and qualitative aspects of mother–infant relationships. Clinicians also may choose to use only certain probes from the interview and may digress into topics that seem especially meaningful.

In their original study, Zeanah et al. (1994) found a significant concurrent association between mothers' representations of their infants on the WMCI and infant–mother attachment as measured by the Strange Situation. In addition, mothers of securely attached babies had significantly higher ratings on several WMCI subscales, including richness in perceptions, openness to change, narrative coherence, and caregiving sensitivity. In a later study, these researchers administered the WMCI to 96 pregnant women and then re-administered the WMCI along with the Strange Situation when infants were approximately 1 year old (Benoit, Parker, & Zeanah, 1997). Results revealed a significant concordance between mothers' representations of their infants during pregnancy and Strange Situation classifications at 1 year, suggesting that prenatal representations of the infant may influence the way in which mothers' perceive

and interact with their children after they are born, which may in turn impact infant-attachment security. More prospective research is needed to better understand the influence of prenatal representations on infant outcomes.

TRAUMA, DOMESTIC VIOLENCE, AND MATERNAL REPRESENTATIONS

There is a growing body of literature supporting the association between traumatic experiences and problematic attachment representations in adulthood. The experience of trauma can lead to a number of cognitive and affective symptoms including: intrusive thoughts, feelings and images, restricted affect, avoidance of cues associated with the trauma, dissociative symptoms, and hyperarousal or hypervigilance (American Psychiatric Association, 1994), all of which may reflect an incomplete process of mental reorganization following a trauma (Lyons-Ruth & Block, 1996). These symptoms are often more complex, diffuse, and long standing in victims of chronic trauma. In addition, repeated trauma that occurs in the context of relationships can severely affect a victim's capacity for relatedness (Herman, 1992).

Only recently has research begun to demonstrate that trauma impacts adults' states of mind in relation to attachment. For example, Stalker and Davies (1995) found that 60% of their sample of adult victims of childhood sexual abuse were Unresolved on the AAI, and 88% of these were given a secondary classification of Preoccupied. An additional 15% were coded as Cannot Classify, an even rarer state of mind with respect to attachment. These types of representations captured by the AAI are characterized by a number of problematic qualities during participants' discourse, including confusion, dissociation, incoherence, lapses in reasoning, intrusive material about prior trauma, and/or a general inability to maintain an organized stance during the interview (Cassidy & Mohr, 2001; Lyons-Ruth & Jacobvitz, 1999). In turn, these representations (especially the Unresolved type) have been related to problematic caregiving behaviors (e.g., frightening, hostile, or withdrawn behaviors), possibly because the parent still is overwhelmed by a past trauma and may be responding to partially dissociated, frightening experiences (Cassidy & Mohr, 2001; Jacobvitz, Hazen, & Riggs, 1997; Main & Hesse, 1990; Schuengel, Bakermans-Kranenburg, & van Ijzendoorn, 1999). Interestingly, most of the research in this area thus far has defined trauma as childhood abuse or loss, with almost no data on relational trauma experienced in adulthood, such as domestic violence.

Clearly, domestic violence is a traumatizing experience that often is chronic and repetitive and has a myriad of negative consequences for its victims. Indeed, research has shown repeatedly that battered women display significantly more trauma symptoms than non-battered women (Houskamp & Foy, 1991; Kemp, Green, Hovanitz, & Rawlings, 1995; Saunders, 1994). New literature is emerging that suggests that attachment theory has much to offer in understanding domestic violence (see Lyons-Ruth & Jacobvitz, 1999, for a review). For example, domestic violence occurs in the context of a significant attachment relationship (i.e., with her partner), likely influencing the victim's capacity for relatedness and her internal working models of self and other. This may be the case even if the woman has had adequate attachment relationships in the past. Because the current, violent relationship often is perceived as threatening, it is probable that the woman's attachment system is in a relatively constant state of activation (Solomon & George, 1999). In addition, because domestic violence often is ongoing, this type of trauma may be inherently unresolved. Moreover, experiences of domestic violence may trigger or reactivate past traumas, re-evoking fear and helplessness, and possibly unintegrated and dysregulated representations.

Because of both past and current traumas, one would expect that battered women would be more likely to show *insecure* attachment representations similar to those in studies exam-

ining adult outcomes of childhood abuse. Only one known study to date has been conducted with this population (Sullivan-Hanson, 1990, as cited in Lyons-Ruth & Jacobvitz, 1999), with results indicating that battered women, in fact, do have higher rates of Preoccupied/Overwhelmed states of mind on the AAI (Unresolved classifications were not coded in this study). Thus, the emerging evidence indicates that victims of domestic violence may show a spectrum of problematic attachment representations, with the potential for unresolved and preoccupied/overwhelmed representations, as well as narratives that lack a consistent state of mind [e.g., narratives that show elements of both dismissing and preoccupied representations (Lyons-Ruth & Jacobvitz, 1999)].

In sum, domestic violence is a relatively common, and often chronic, experience in women's lives, including during pregnancy. Based on the literature examining childhood trauma, violence, and adults' states of mind with respect to attachment, it is likely that battered women's working models of self and others are affected by domestic violence. The impact of partner violence on women's working models may be particularly salient during pregnancy, as women are forming and reorganizing representations of significant others, themselves as care givers, and their infants. In fact, it seems possible that the pregnancy itself and the growing, moving fetus may be perceived as threatening at times and/or may re-evoke aspects of the trauma associated with being battered by a partner. A similar idea has been noted by other researchers who have suggested, for example, that even harmless acts by an infant may trigger the attachment system and dysregulated feelings if the acts resonate with the parent's experience of trauma (e.g., Schuengel et al., 1999).

The present study is the first to examine the relationship between domestic violence during pregnancy and mothers' prenatal representations of their infants and of themselves as mothers. It was hypothesized that domestic violence during pregnancy would be related to more problematic and insecure representations of the infant and the self as a mother, as measured by the WMCI. More specifically, it was expected that the narratives of battered pregnant women would be more likely characterized by qualities such as incoherence and dysregulated affect (as seen in the AAI narratives of traumatized adults) compared to non-battered pregnant women. In addition, it was expected that battered women would be more likely classified as insecurely attached to their infants during pregnancy than non-battered women.

METHOD

Participants

Participants were 206 pregnant women who were recruited and enrolled in a larger longitudinal study examining risk and protective factors related to domestic violence (DV). Women who had and had not experienced DV during their pregnancy were recruited with flyers throughout a medium-sized Midwestern city at a number of agencies and clinics in the community, as well as through flyers posted in public places. Participants had to be 18 to 40 years of age, involved in a romantic relationship for at least 6 weeks during the pregnancy, and in their last trimester of pregnancy at the time of the interview. Women were excluded from the study if it was believed they would have difficulty understanding questionnaires due to limited knowledge of the English language.

The sample included 91 women (44%) who reported experiencing DV during the current pregnancy and 115 women (56%) who reported no DV during the current pregnancy. As Table 1 shows, battered women were significantly younger, less educated, and more likely to be single than non-battered women. The two groups did not differ significantly on race/ethnicity

TABLE 1. Demographic Characteristics of Sample (N = 206)

	DV (n = 91)	No DV (n = 115)	Entire Sample (N = 206)
Age of mother*	M = 24.4 (SD = 4.9)	M = 26.1 (SD = 5.0)	M = 25.4 (SD = 5.0)
Education level*			
High school or less	49 (54%)	44 (38%)	93 (45%)
Some college	33 (36%)	39 (34%)	72 (35%)
Associate's degree	4 (5%)	10 (9%)	14 (7%)
Bachelor's degree	2 (2%)	14 (12%)	16 (8%)
Graduate degree	3 (3%)	8 (7%)	11 (5%)
Racial/Ethnic background			
Caucasian	56 (61%)	74 (64%)	130 (63%)
African American	25 (28%)	27 (23%)	52 (25%)
Latina, Hispanic	3 (3%)	7 (6%)	10 (5%)
Biracial	5 (6%)	3 (3%)	8 (4%)
Native American	1 (1%)	1 (1%)	2 (1%)
Asian American	0 (0%)	1 (1%)	1 (1%)
Other	1 (1%)	2 (2%)	3 (1%)
Marital status**			
Never married	61 (67%)	42 (36%)	103 (50%)
Married	18 (20%)	65 (57%)	83 (40%)
Divorced	3 (3%)	7 (6%)	10 (5%)
Separated	8 (9%)	1 (1%)	9 (4%)
Widowed	1 (1%)	0 (0%)	1 (1%)
Number of children	M = 1.1 (SD = 1.2)	M = 1.0 (SD = 1.1)	M = 1.0 (SD = 1.2)

* $p < .05$; ** $p < .001$.

or number of children. Much of the sample could be considered high risk, possibly because of the co-occurrence of other risk factors with domestic violence. For instance, 55% of women had monthly incomes of less than \$1500 (the median income was \$1451), 62% of women were receiving some form of public assistance, and 41% reported some symptoms of depression.

Procedures

Women contacted the study office if they were interested in participating, at which time a research assistant performed a brief screening to determine eligibility. If the potential participant met criteria and agreed to participate, an appointment was made. This appointment took place in the woman's home or in the project office, based on the participant's preference, and lasted approximately 3 hours. Participants were informed about anonymity and confidentiality and completed an informed consent form. A trained research assistant then administered a clinical interview (described below). This interview was audio-recorded and later transcribed. Finally, a number of questionnaires were read aloud to participants in order to control for varying levels of literacy, and the interviewer recorded participants' responses. Women were paid \$50.00 for their participation.

Measures

Demographic questionnaire. A questionnaire was administered to obtain basic demographic information, such as women's ethnicity, education and occupation, and family income.

Domestic violence. The Severity of Violence Against Women Scales (SVAWS; Marshall, 1992) and the Conflict Tactics Scale (CTS; Straus, 1979) were used to measure DV, defined here as male-to-female violence, experienced by women during pregnancy. The SVAWS contains 46 items, which make up nine dimensions of violence ranging from threats of mild violence to severe physical and sexual violence. Each item is rated for frequency of occurrence on a scale of 0 to 3 (Never to Many Times). In the original sample of community women (Marshall, 1992), coefficient α s ranged from .89 to .96, indicating high internal consistency within dimensions. The α coefficient in the current study was .94 for the total scale, indicating good reliability.

The CTS contains 19 items that measure three modes of dealing with conflict: Reasoning, Verbal Aggression, and Physical Aggression. Only the 14 items assessing verbal and physical aggression were administered to participants. Each item is rated for frequency of occurrence on a scale of 0 to 6 (Never to More Than 20 Times). Straus (1979) reported a coefficient α of .77 for Verbal Aggression and .62 for Physical Aggression, as well as evidence for concurrent and construct validity. Coefficient α in the present study was .88 for the total scale, indicating good reliability.

Women were placed in the DV group if they reported experiencing at least one incident of violence — defined here as threats of moderate or serious violence, mild to serious violence, or sexual violence — during the current pregnancy on either measure (as indicated by any item between 9 and 46 on the SVAWS or between 6 and 14 on the CTS). Women in this group primarily experienced mild to moderate forms of violence; scores on the SVAWS ranged from 1 to 54 (out of a possible 111), with a mean of 10.90 ($SD = 11.65$), while scores on the CTS ranged from 1 to 34 (out of a possible 54), with a mean of 5.79 ($SD = 7.33$).

Prenatal representations of the infant and self as a mother. The WMCI (Zeanah et al., 1994) was used to measure maternal representations of the infant and of the self during pregnancy. In the present study, questions were changed to future tense to inquire about mothers' representations during pregnancy, which has been shown to be a valid technique for assessing prenatal representations (Benoit, Parker et al., 1997). The WMCI is a 1-hour structured interview that assesses a participant's perceptions and subjective experiences of her infant and relationship with her infant, as well as ideas about the infant's future development. Interviews are audio-recorded, transcribed, and coded along a number of 5-point Likert scales that assess qualitative (e.g., coherence), content (e.g., infant difficulty), and affective (e.g., anger, joy) features of maternal representations. Like other attachment interviews (i.e., the AAI; George et al., 1985), emphasis is placed on both the process and content of participants' narratives. Coders then assign an overall classification of the narrative based on the profile of subscale scores.

Balanced narratives include both positive and negative characteristics of the infant and relationship with the infant. They convey value for the infant's individuality and appreciation for the infant's subjective experience. The caregiver's perceptions are open to change and are at least moderately rich in detail about the infant and the care-giving experiences. Emotional distance or indifference toward the infant characterizes *Disengaged* representations. Caregivers are unable to recognize the infant's individuality, and if it is recognized, it is not valued. Details about the infant or parenting experience lack richness, are not flexible or open to new experience, and are emotionally unintegrated. Low coherence may be in the form of contradictions or grossly impoverished content. Finally, *Distorted* representations reflect general inconsistencies. Caregivers may be preoccupied or overwhelmed by the infant or may have unrealistic expectations about the infant. Unlike disengaged parents, distorted mothers do not deny their impact on their infants. However, they often do not recognize how their behaviors may be detrimental to the infants. Descriptions of the infant and the relationship with the infant may

be incoherent due to flooding and tangential thoughts. Much feeling is expressed toward the infant, but these emotions lack a sense of modulation.

Along with overall classifications, a number of subscales are also coded. In addition to affective features (e.g., anxiety and joy), these include: (a) Richness of Perceptions — the poverty or richness of representations of the infant and the degree to which the mother *knows* the infant, (b) Openness to Change — the flexibility of the mother's representation to accommodate new information about the infant (compared to rigidity), (c) Intensity of Involvement — the amount of psychological involvement the mother experiences with the infant and with parenting, (d) Coherence — the overall organization of the mother's narrative about the infant, her relationship with the infant, and the logical flow of her responses, (e) Caregiving Sensitivity — the degree to which the mother recognizes and responds adequately to the infant's own needs and experiences, including a respect for the infant as a separate but dependent individual, (f) Acceptance — the degree to which the mother is open and accepting of responsibilities involved with adequate caretaking, and (g) Infant Difficulty — the degree to which the mother perceives the infant as difficult to care for. Two other subscales (Fear for Infant Safety and Indifference) were not used in the present study due to an inability to achieve adequate reliability.

Several studies have demonstrated predictive and concurrent validity for the WMCI by reporting highly significant relationships between WMCI classifications and infant-attachment classifications assessed by the Strange Situation in the expected direction: Balanced–Secure, Disengaged–Avoidant, and Distorted–Ambivalent (Benoit, Parker et al., 1997; Zeanah et al., 1994). Interrater agreement has ranged from .57 to .76 (Cohen's κ) for different classifications in previous studies, and Benoit and colleagues reported a high degree of test–retest stability for the Secure and Distorted classifications (concordance over 1 year's time was 89% and 85%, respectively). In the present study, two of the authors (A.H. and S.T) were trained to code scales and classify representations according to the coding system developed by Zeanah, Benoit, Barton, & Hirshberg (1996). Coders were blind to the violence status of women, except for women who spontaneously discussed experiences of violence during the interview, a relatively infrequent event happening about 5% of the time. Adequate interrater reliability was established using weighted- κ (or corrected- κ) (Cohen, 1968; Fleiss, Cohen, & Everitt, 1969) for subscales and both percent agreement and Cohen's κ for overall classifications. These were calculated based on 26 interviews (13% of the sample) that were coded by both trained coders, some of which were double coded at periodic intervals to control for rater drift. Percent agreement for overall classification was 96%, with a κ of .94 ($p < .001$). Weighted κ s for the subscales were as follows: *Richness* = .68, *Openness* = .51, *Involvement* = .85, *Coherence* = .62, *Sensitivity* = .69, *Acceptance* = .77, *Infant Difficulty* = .65, *Joy* = .60, *Anger* = .63, *Anxiety* = .55, and *Depression* = .76.

In addition to the subscales assessing representations of the infant, mothers' responses on the WMCI were coded for representations of self-as-mother. This code was adapted from the Confidence and Competence scale from Slade et al.'s (1994) Pregnancy Interview Coding System. This subscale assesses the mother's representations of her own competence and self-efficacy in the maternal role and her expectations of herself as a mother along a 5-point Likert scale. The middle point on this scale represents the most balanced or secure representation of self-as-mother; mothers who score low on this scale lack confidence in themselves, whereas mothers high on this scale are overly and unrealistically self-confident (which is believed to be a defensive response to underlying inefficacy). Thus, a secure mother would recognize her strengths and limitations and acknowledge the challenges of motherhood, but overall would feel that she is able to make her baby feel happy, safe, and secure. For analyses, codes of 2 and 4 were collapsed and codes of 1 and 5 were collapsed so that the highest possible code was a 3, which represented the most secure representations of self. Weighted κ for this subscale

was .63. Because this subscale was not part of Zeanah et al.'s (1996) original coding system, scores on this scale did not necessarily influence overall classifications assigned to women. However, not surprisingly, women with an insecure classification had significantly lower self-efficacy scores than women with a balanced classification ($t = 14.73, p < .001$).

RESULTS

A multiple analysis of variance (MANCOVA) was used to analyze between-group differences on the WMCI subscales, with education and current relationship status (i.e., whether or not the woman was still in the relationship she reported on) as covariates. Education was chosen as a covariate because it is a good proxy for socioeconomic status — the groups significantly differed on this variable — and because of its potential effects on women's narratives (e.g., through their verbal abilities). Current relationship status was chosen as a covariate in order to examine the effects of domestic violence beyond any possible effects of a change in the relationship with the partner. A χ^2 test was used to analyze differences in overall WMCI classifications. Working Model of the Child Interview data from four participants were unavailable because of audio-recording errors (two) and incomplete interviews (two). These four excluded participants did not differ significantly from the rest of the sample in terms of violence status or demographic variables. Thus, the total sample size for the following analyses was 202.

As Table 2 shows, women who experienced DV during the current pregnancy had significantly different scores on all WMCI subscales except for Richness of Perceptions and Intensity of Involvement compared to women who had not experienced DV during the pregnancy. These differences were all in the expected direction, with women in the DV group having more negative, insecure representations. The representations of women who experienced violence were characterized by: less flexibility or openness to change, less coherence, less caregiving sensitivity, less acceptance of the child, greater perceived infant difficulty, less joy, more anger, more anxiety, more depressive affect, and less feelings of self-efficacy as a caregiver. Thus, domestic violence was related significantly to most of the WMCI subscales, beyond the effects of education and current relationship status.

TABLE 2. *Group Differences on WMCI Subscales*

WMCI Subscales	DV (n = 89)	No DV (n = 113)	F-value ^a
	Mean (SD)	Mean (SD)	
Richness of perceptions	2.67 (.93)	2.97 (1.01)	1.08
Openness to change	2.70 (.94)	3.51 (.87)	30.68**
Intensity of involvement	2.93 (.99)	3.28 (.93)	1.63
Coherence	2.59 (.85)	3.06 (.97)	5.62*
Caregiving sensitivity	2.91 (.97)	3.45 (.92)	6.13*
Acceptance	2.81 (.92)	3.45 (1.01)	11.39**
Infant difficulty	3.28 (.71)	2.78 (.82)	14.02**
Joy	2.39 (.84)	3.12 (1.03)	18.71**
Anger	2.18 (1.18)	1.55 (.76)	14.79**
Anxiety	3.09 (.91)	2.85 (.86)	4.89*
Depression ^b	2.28 (1.03)	1.59 (.84)	14.56**
Maternal self-efficacy	2.15 (.58)	2.42 (.61)	5.15*

^a Reflects values after controlling for maternal education and current relationship status.

^b This scale is not part of Zeanah et al.'s (1996) original coding system, but was added by our research team. $n = 184$ for this scale only (DV: $n = 80$ and No DV: $n = 104$).

* $p < .05$; ** $p < .001$.

TABLE 3. WMCI Classifications of Women in the DV and No DV Groups

	Balanced/Secure N (%)	Disengaged N (%)	Distorted N (%)	Total N (%)
DV	29 (33)	37 (41)	23 (26)	89 (100)
No DV	68 (60)	26 (23)	19 (17)	113 (100)
Total	97 (48)	63 (32)	42 (20)	202 (100)

$\chi^2 = 15.35; p < .001.$

For the entire sample, 48% of women were classified as Balanced, 32% were classified as Disengaged, and 20% were classified as Distorted. As expected, χ^2 analyses revealed that women who experienced DV were significantly more likely to be classified as Disengaged or Distorted, while women who had not experienced DV were significantly more likely to be classified as Balanced, $\chi^2 (2, N = 202) = 15.35, p < .001$ (see Table 3). Of women who experienced violence, only 33% were classified as Balanced, while 41% were classified as Disengaged and 26% were classified as Distorted. On the other hand, 60% of women who had not experienced violence were classified as Balanced, while only 23% were classified as Disengaged and 17% were classified as Distorted.

Clinical Excerpts from Interviews with Battered Women

In order to help illustrate how domestic violence was related to mothers' prenatal representations in the present study, a number of transcript excerpts are provided here. Although scores and classifications always were based on entire interviews rather than isolated responses, as directed by Zeanah and colleagues (e.g., Zeanah & Benoit, 1995), it is helpful to have specific examples in order to better understand the quantitative results described above, as well as their clinical implications. Interviewer questions are indicated by bold print.

What do you sense the baby might be like? Oooh, bad. Bad, like his father. Really bad (*laughs*). What it's gonna be, I don't know, but I sense it's gonna be bad. A little rugrat like (father's name) . . . **Pick 5 words that describe what your child's personality will be like when s/he is born.** Hmmm, oh probably a pain in the butt, maybe happy, I don't know. He'll probably cry all the time . . . **For each one, what makes you say that?** Cuz his dad is a pain in the butt. He runs around in here, being hard headed. So, just think the kid's gonna be like that for some reason. I shouldn't be thinking bad about my kid, but still . . . coming from that father (*laughs*) . . . [*later in the interview*] **How would you describe your relationship with your baby now, while you're pregnant?** Ummm, oh, he, the baby beats me up all the time. Kicks me. I don't know. I feed him and he's always kicking me. Very hard. **Pick 5 words to describe your relationship.** Hmmm, the baby's hyper, he's really hyper. Very active, he moves a lot. Kicks me in the ribs, beats me up. **Describe a memory or incident that would illustrate what you mean.** He'll just bulge my stomach out. His body is right here and his feet are up here, so he just kicks me all the time. I don't know why . . . He has to kick me in the ribs, every time he moves, he just makes my stomach feel big and it's hard. It hurts. He's just making it worse . . . **Has your relationship with your baby changed during the pregnancy?** Uh uh. Just kicks my butt. Can't do nothing about it.

Although this mother is describing her infant, who is yet to be born, she already perceives the baby as being quite aggressive, like her abusive partner. Her perceptions are remarkably rigid, and one senses that she will have trouble modifying her representations to accommodate new information about the infant after birth. She seems unaccepting of this infant, and it is clear that she expects the infant to be very difficult to care for. In addition, one can sense an angry tone, and she seems to view herself as helpless and incompetent in handling the baby. Based on the entire interview, this woman was classified as Disengaged.

Another example comes from a woman who presents in a different style, in this case, flooded with anxiety:

What do you sense the baby might be like? Oh God. A lot of times I sit here and wonder, you know, from these anxiety attacks. I think my baby might be nervous, you know, and come out fluttered or frustrated because of a lot of the drama I've been telling you about. He's been in me so it's like, you know, nervousness, nervousness, a lot of nervousness. I can tell that so . . . **Pick 5 words that describe what your child's personality will be like when s/he is born.** Oooh, ok. Very aware. I think very aware due to a lot of circumstances. Like I said, the frustration might have played a part in his personality when he first gets here so he might, like I said, be very nervous. He'll be very serious. Uh, not so trusting, not trusting at first at all, even to nurses or me right off . . . [*when asked to describe why she chose these words, she responded:*] Nervous, due to the anxiety I've been feeling. A lot of the shaking I would do or the needing to calm down, so nervous and shaky from that, I would think . . . Serious, nothing really to laugh about. Some babies are real fun, you know, just playful. Just not feeling too, you know, just not a real playful baby . . . Not trusting. At first, you just gotta, you know, shaky like well, who's this or (*pause*) especially if you're shaking and kind of nervous. You're just not too trusting, too trusting, like an animal or something. You know, just sit there shaking and kinda gonna be like — wait. Safety or whatever so that's why I don't think he would be too trusting if he does come out with that condition. [*later in the interview*] **Are there any experiences you've had during your pregnancy that have been a setback for the baby?** Yeah, like I said, the emotional-ness with his father, the arguing, sometimes the pushing or the name calling like you bitch or you know, the jealousy, the jealousy that he'll have. A lot of that is just, just like for a woman that's not pregnant, it's very, it's just more though, being pregnant. It's a setback with all of that. It's just very stressful, could cause a lot of mental anguish, mental thoughts, or enough to drive a person crazy actually.

Although this woman appears to have some rich, detailed representations of her infant, she appears to be less flexible about new information about the infant, perceives the infant as difficult to relate to, and sees herself as helpless, which are all similar to the first example. Her affect, though, is flooded and unmodulated, and in contrast to the first example, this woman seems to view the baby as like herself rather than like her partner. In fact, her responses are confusing and incoherent at the moments in the interview when she switches from using "he" to using "you," and one senses that she is talking about her own experience (e.g., "not trusting") rather than her infant's. In that sense, representations of the infant and of herself appear to be merged. This woman was classified as Distorted.

Although results in the present study revealed that women experiencing DV were significantly more likely to be classified as Disengaged or Distorted, it is not the case that all women in the violence group had an Insecure classification. Below is one final example of a woman

who had experienced DV in the current pregnancy, but who was classified as Balanced, possibly, in part, because the abusive relationship had ended by the time the interview occurred.

What do you sense the baby might be like? Well, I hope, with all the stress of the way the relationship went with her father . . . it became violent a couple of times and I was real worried about the stress. I was hoping I wouldn't have a real nervous baby that cried a lot. Um, hopefully because of the fact that he is out of the picture and our lives calmed down once he was gone, and there was a more relaxed atmosphere in the home, she'll be calm. I just don't want it to affect her. I'm hoping that she'll just be a real relaxed baby and feel loved. **How would you describe your relationship with your baby now, while you're pregnant?** Uh, normal. She's active. She knows we're ready for her. Since her father left the household, things have calmed down quite a bit and hopefully she can feel the lack of tension in the air. I'd like to let her know that the world's okay and it's ready for her when she's ready to come out. And, hopefully she feels the excitement that I have for having a new baby and that she's wanted and that she's loved. *[later in the interview]* **What pleases you most about your relationship with your baby now?** When I feel her move. I feel good. I feel that she's normal and that she's just as anxious as I am to come out into the world and to see me and to be a part of this life. **What will you do at those times when she gets upset?** Just be the best mom I can, encourage her, let her know that these are my responsibilities, that I do it for her and for the family and that I'm always gonna come home to her and give her the reassurance that mom will be there. **What about when she becomes emotionally upset?** Just give her a lot of physical love and encourage her. Let her know that, um, even though the world's tough, you know, there's still people you can hold onto.

In contrast to the first two examples, this woman's narrative is characterized by more openness to change, psychological involvement with the child and the relationship, coherence, sensitivity, and acceptance. This woman seems to view the child as a unique and separate individual, sees herself as generally capable and competent as a caregiver, and does not view the infant as difficult to care for. Interestingly, this woman's experience of her infant's movement is strikingly positive (e.g., conveying health and anticipation for being together) as compared to the first two examples (e.g., conveying aggression and anxiety). Finally, her responses do not reflect a tone of anger or unmodulated anxiety, but rather, they communicate some joy and excitement about the infant's arrival.

DISCUSSION

As expected, results from this study revealed that women who experienced domestic violence during pregnancy had significantly more negative prenatal representations of their infants and of themselves as mothers compared to women who had not experienced violence during pregnancy. For example, women in the violence group tended to perceive their infants in less open, coherent, and sensitive ways, tended to see themselves as less competent as caregivers, and displayed more negative affects such as anger and depression while talking about their infants. These results were true for virtually all scales, even after controlling for the effects of education and current relationship status. Additionally, as expected, women who experienced domestic violence were significantly more likely to be classified as insecurely attached to their infants during pregnancy (either Disengaged or Distorted), whereas women who had not experienced violence were more likely to be classified as securely attached or Balanced.

These results make sense in light of attachment theory and recent theoretical studies. Women who are battered during pregnancy by their partners are compromised psychologically in a number of ways, which may overwhelm their ability to tolerate or relate to their infant in a sensitive and accepting manner (Lieberman & Van Horn, 1998; Osofsky, 1999; Zeanah & Scheeringa, 1997). The experience of domestic violence also may activate or re-activate un-integrated thoughts and feelings and may alter working models of self and others for the worse. This, in turn, may negatively affect the way in which women conceptualize and organize their perceptions of their infants and themselves as caregivers, even before the infant is born.

These results also are consistent with recent empirical work. For example, studies examining the AAI in adult victims of childhood or partner abuse (Stalker & Davies, 1995; Sullivan-Hanson, 1990) have found a greater likelihood of Unresolved, Preoccupied/Overwhelmed, and Cannot Classify states of mind, which are characterized by somewhat similar qualities as those seen in the present study's WMCI narratives (e.g., incoherence and dysregulated affect). Furthermore, findings in the present study are consistent with prior work by Zeanah and colleagues (Benoit, Zeanah, Parker, Nicholson, & Coolbear, 1997), who have shown a greater likelihood of Disengaged and Distorted classifications on the WMCI among other types of clinical samples (e.g., parents of infants with failure to thrive), along with differences in subscale scores in the expected directions (e.g., less openness to change, coherence, and sensitivity) between clinical and non-clinical groups.

The empirical results of the present study are illustrated vividly through the case examples. The excerpts from battered women classified as Disengaged or Distorted highlighted certain characteristics that were seen repeatedly in these women's narratives about themselves and their unborn infants. These included, for example, a striking rigidity or lack of flexibility in imagining what the child would be like after birth, perceptions of the infant as difficult to care for and of the self as helpless and incompetent, confusion and incoherence during parts of the interview, and little sensitivity or acceptance of the infant. In addition, women in the violence group tended to view the child as an aggressive object (e.g., by interpreting fetal movements as abusive and predicting the child would turn out "just like the father") or as a helpless victim like herself. Overall, women in the violence group generally presented as cool, distant, and angry or as anxiously preoccupied and overwhelmed.

However, this was not always the case, as illustrated by the excerpt of a woman in the violence group who was classified as Balanced. This example highlighted the resiliency seen in some battered women, particularly those who are able to separate themselves from their abusive partners. In these rarer instances, some battered women form more positive representations of their infants and of themselves as caregivers, displaying, for example, greater sensitivity and acceptance, openness to new information, and greater feelings of self-efficacy. This is consistent with other studies, which have demonstrated that some battered women may show resiliency in their parenting behaviors, for example, by actively mobilizing their resources in response to the violence on behalf of their children (e.g., Levendosky, Lynch, & Graham-Bermann, 2000).

Despite these exceptions, however, the overall findings in this study are notably consistent with recent theoretical writings and clinical case examples about mothers' negative attributions about their children (Lieberman, 1999; Silverman & Lieberman, 1999; Zeanah, Finley-Belgrad, & Benoit, 1997). For example, Lieberman and colleagues have noted, as have others, that maternal attributions and fantasies about the child can develop with or even before birth and can be more or less compatible with reality and more or less rigid. In more disturbed cases, mothers may project their own unacceptable and intolerable experiences onto their children, who, in turn, may identify with such projections and behave accordingly. In several studies and through clinical case examples, they described what this might look like in families with

domestic violence (Lieberman, 1999; Lieberman & Van Horn, 1998). As in the present study, they found that mothers might either perceive their child as a helpless victim like themselves, needing the child to identify with their pain, or as aggressive and violent like their abusive partners. In the latter case, for example, mothers may misinterpret age-appropriate rambunctiousness as aggressive and may distort the meaning of their child's anger. We found strikingly similar distortions and misinterpretations among our sample of pregnant battered women.

Furthermore, Lieberman et al. (1998, 1999) have hypothesized that these maternal representations have a powerful influence on maternal behavior, which in turn have a significant impact on the child's representations of the mother and the child's developing sense of self. Some emerging empirical research has supported these ideas. For example, two studies have demonstrated that prenatal representations of the infant (as measured by the WMCI) predict infant attachment in the Strange Situation at 1 year (Benoit, Parker, et al., 1997; Huth-Bocks, Levendosky, Bogat, & von Eye, in press), which presumably reflects the infant's developing representations of the mother and the self. Several other studies have reported significant relationships between maternal representations of the child and the self as a caregiver and the child's attachment security during toddlerhood and early childhood (Bretherton, Biringen, Ridgeway, Masline, & Sherman, 1989; George & Solomon, 1989, 1996).

In addition to the indirect effects of domestic violence on infant outcomes through maternal representations and behaviors, domestic violence may have a range of direct effects on young children's attachment and feelings towards caregivers. For example, witnessing domestic violence may undermine the child's trust in both attachment figures as reliable sources of safety and protection, leading to representations of others as unavailable and dangerous (Groves, Lieberman, Osofsky, & Fenichel, 2000; Margolin, 1998). Young child witnesses also may develop strong conflicting feelings such as longing for and fear of the abusive caregiver, as well as anger at the mother, a wish to protect her, and a fear of losing her (Lieberman & Van Horn, 1998). Eventually, young children may identify with and enact the role of the abuser or the victim; our findings, as well as those by Lieberman and colleagues (Lieberman, 1999; Silverman & Lieberman, 1999), provide evidence for the potential underpinnings of such processes.

The findings from this study also have important implications for clinicians working with at-risk families during and following pregnancy. First, it is critical to assess for domestic violence in high-risk populations because of its prevalence and pervasive negative effects. There are multiple ways to assess for violence, with some research suggesting that asking multiple times during the pregnancy, asking in-person rather than through self-administered questionnaires, and asking later in pregnancy increase the likelihood that women will report domestic violence (Gazmararian et al., 1996). Similar methods are likely more successful for women after birth as well. It also is important to assess for multiple dimensions of violence, including physical, sexual, and psychological abuse, in addition to controlling behaviors and the degree of fear felt by the woman. Because the emerging evidence has demonstrated the importance of maternal representations for parenting and attachment relationships, it also is critical to assess a woman's representations of her child and herself as a caregiver. The WMCI is one such way of systematically evaluating caregivers' perceptions and feelings about their infants that could be useful to clinicians (Zeanah & Benoit, 1995).

After a thorough assessment, preventive intervention work can begin prenatally, with a focus on the mother's representations of herself and her infant. It is believed by clinicians working within an attachment framework that altering representations will affect change in maternal behaviors (e.g., Stern, 1995), since representations and behaviors are related dynamically. Clinical work also should focus on healing past traumas, as well as current traumas and general distress related to the domestic violence (Groves et al., 2000), with the eventual goal

of leaving abusive relationships. The mother and child's safety always should be kept in mind. Finally, clinicians may help mothers understand the origins of their own sense of helplessness and incompetence as caregivers in order to work towards building mothers' confidence and feelings of empowerment. This type of work may be facilitated by the use of existing models of parent–infant psychotherapy, such as those described by Fraiberg (1980) and Lieberman and Pawl (1993), whereby the therapist serves as an available, empathically responsive figure who provides the opportunity for a corrective attachment experience.

Interventions conducted postnatally could focus on both maternal representations and parent–infant interactive behaviors, as well as the mother's overall well being since it is generally believed that helping caregivers may be the best way to help young children (Groves et al., 2000; Osofsky, 1999). Clinicians could help the mother understand her responses to and feelings toward the infant in the context of her experiences with her partner. Clinicians also could help the caregiver feel safe, both in the therapeutic relationship and in her everyday life, by helping to plan active, competent steps to ensure her own safety (Cassidy & Mohr, 2001; Groves et al., 2000). In turn, the caregiver may learn to do this for her children. In addition, clinicians should help the mother understand how her own behaviors may be frightening to the child (e.g., by acting aggressively or demonstrating fear of the infant), as well as help her gain a greater understanding of and empathy for her child's own fear and distress.

It is important to note that the present study was not without limitations. First, this study was correlational in nature, as all variables were measured concurrently during pregnancy. Therefore, we are unable to conclude definitively that domestic violence caused problematic maternal representations, but rather, can only conclude empirically that a relationship existed between these variables. Although the use of the WMCI to measure maternal representations was a strength in this study, some limitations with this instrument were apparent. For instance, it was difficult to establish high interrater reliability on some of the subscales, such as Openness to Change and Anxiety, and results using these subscales should be interpreted with caution. More importantly, the coding system for the WMCI does not include criteria for classifying individuals as Unresolved or Cannot Classify, as does the AAI. These classifications may be particularly relevant and meaningful to our sample of battered (and likely traumatized) women. Anecdotally, we believe that many of our participants would have been classified as one of these alternative categories if they had existed, for example, because a considerable number of women showed characteristics of both Disengaged and Distorted styles. In these instances, a final classification was chosen based on what was believed to be the more predominant strategy. However, we believe that the WMCI categories need expansion in order to be used more meaningfully with traumatized populations.

On the other hand, the present study had a number of strengths. First, the sample was large and diverse in terms of educational background, ethnicity, and marital status. In addition, women in the violence group generally experienced mild to moderate forms of abuse, which may be more representative of women experiencing domestic violence in the general population (Tjaden & Thoennes, 1998). Thus, the results from the present study may be more generalizable than the results obtained from studies with more homogenous samples or more severely battered women (e.g., studies using participants from battered women's shelters only). Finally, as mentioned above, maternal representations were measured using a clinical interview that was coded by trained, reliable coders. This method of assessing representations is believed to provide more valid data than self-report questionnaires because it allows for the measurement of unconscious or automatic processes (Crowell, Fraley, & Shaver, 1999), which are believed to be involved intimately in attachment-related representations.

In conclusion, this study advances the current body of literature by examining the impact of domestic violence on women during the critical time of pregnancy, as well as by examining

the relationship between this type of trauma and mothers' representations of the infant and self (rather than the more commonly assessed attachment representations from the AAI). It will be important for future studies to replicate these findings, as well as to empirically examine how these processes during pregnancy may be related to various infant outcomes after birth. However, the current findings do suggest strongly that domestic violence is an important risk factor for mothers and their infants, and thus, the presence and effects of domestic violence require serious attention when conducting clinical work with these families.

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