A R T I C L E

# UNDERSTANDING THE "GHOSTS IN THE NURSERY" OF PREGNANT WOMEN EXPERIENCING DOMESTIC VIOLENCE: PRENATAL MATERNAL REPRESENTATIONS AND HISTORIES OF CHILDHOOD MALTREATMENT

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ABSTRACT: Selma Fraiberg and colleagues (1975) conceptualized the "ghosts in the nursery" as experiences from a mother's past that influenced her ability to form a warm and attuned relationship with her child. Contemporary infant mental health interventions often ask the mother to reflect on her own history of attachment relationships to gain insight into as well as to strengthen her developing relationship with her child. This study investigated the association between a mother's history of childhood maltreatment (CM) and her subsequent prenatal maternal representation during the third trimester of pregnancy. Controlling for domestic violence (DV), distorted prenatal representations were associated with higher rates of self-reported childhood physical neglect. In addition, DV moderated the relationship between representations and CM, such that women who were exposed to DV during pregnancy and had distorted prenatal representations were least likely to report childhood physical and sexual abuse. Implications are discussed in relation to infant mental health interventions which rely on a parent's ability to psychologically access and reflect on childhood histories to more sensitively parent her own child.

RESUMEN: Selma Fraiberg y colegas (1975) definió el concepto de "fantasmas en el cuarto de los niños" como experiencias del pasado de las madres que ejercen influencia en la habilidad de ella para formarse una cálida y afinada relación con su infante. A menudo, las intervenciones contemporáneas de la salud mental infantil les piden a las madres que reflexionen sobre su propia historia de relaciones afectivas con el fin de lograr un mejor conocimiento y al mismo tiempo hacer más fuerte la relación que están desarrollando con sus hijos. Este estudio investigó la asociación entre la historia de una madre que tuvo una niñez llena de maltratos (CM) y su subsiguiente representación maternal prenatal durante el tercer trimestre del embarazo. Considerando por medio del experimento de control la variable de la violencia doméstica, (DV), las representaciones prenatales distorsionadas se asociaron con puntajes más altos de la auto-reportada negligencia física en la niñez. Es más, la violencia doméstica (DV) sirvió para moderar la

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relación entre las representaciones y el maltrato en la niñez (CM), a tal punto de que las mujeres que habían estado expuestas a la violencia doméstica (DV) durante el embarazo y tenían representaciones prenatales distorsionadas fueron las menos propensas a reportar el abuso físico y sexual en la niñez. Se discuten las implicaciones en relación con las intervenciones de la salud mental infantil que dependen de la habilidad de la madre de acceder a y reflexionar sobre sus historias de la niñez, sicológicamente, con el fin de criar a su propio infante con una mayor sensibilidad.

RÉSUMÉ: Selma Fraiberg et collègues (1975) conceptualisa les "fantômes dans la crèche" en tant qu'expériences d'un passé de la mère qui ont influencé sa capacité à former une relation chaleureuse et sensible avec son enfant. Les interventions contemporaines de santé mentale du nourrisson demandent souvent à la mère de faire un effort de réflexion sur sa propre histoire de relations d'attachement afin d'arriver à mieux connaître sa relation qui se développe avec son enfant, et aussi de la renforcer. Cette étude s'est penchée sur l'association entre l'histoire de maltraitance durant l'enfance de la mère (abrégé CM en anglais) et sa représentation maternelle prénatale ultérieure durant le troisième trimestre de la grossesse. Avec un contrôle pour la violence conjugale (abrégée DV en anglais), les représentations prénatales déformées étaient liées à des taux plus élevés de négligence physique durant l'enfance auto-rapportées. De plus, la violence conjugale (DV) modérait la relation entre les représentations et la maltraitance durant l'enfance (CM), d'une telle manière que les femmes qui ont été exposées à la violence conjugale (DV) durant la grossesse et qui faisaient preuve de représentations prénatales déformées étaient les moins à même de signaler une maltraitance physique et des abus sexuels. Les implications sont discutées en relation aux interventions de santé mentale du nourrisson qui reposent que la capacité d'un parent à accéder psychologiquement aux histoires de son enfance et à y réfléchir de façon à élever son propre enfant de plus sensiblement.

ZUSAMMENFASSUNG: Selma Fraiberg und Kollegen (1975) konzeptualisiert die "Gespenster im Kinderzimmer", als Erfahrungen aus der Vergangenheit der Mutter, die ihre Fähigkeit, eine warme und angemessene Beziehung zu ihrem Kind aufzubauen. Zeitgemäße Interventionen der seelische Gesundheit von Kleinkindern fragen Mütter oft nach ihrer eigenen Geschichte von Bindungsbeziehungen, um einen Einblick zu bekommen, damit die sich entwickelnde Beziehung zu ihrem Kind gestärkt werden kann. Die vorliegende Studie untersuchte den Zusammenhang zwischen mütterlichen Misshandlungserfahrungen (CM) und deren späteren Schilderungen im dritten Trimenon ihrer eigenen Schwangerschaft. Maßgeblich für häusliche Gewalt (DV) war eine verzerrte Darstellung, die mit einer höheren Rate von selbst berichteter körperlicher Verwahrlosung assoziiert war. Darüber hinaus beeinflusste DV die Beziehung zwischen den Vorstellungen und den CM, so dass Frauen, die während der Schwangerschaft DV ausgesetzt waren, und verzerrten Darstellungen hatten mit großer Wahrscheinlichkeit von körperlichen und sexuellen Missbrauch berichteten. Die Auswirkungen werden in Bezug auf Interventionen der psychischen Gesundheit von Kindern diskutiert, die die elterliche Fähigkeit, psychologische Zusammenhänge zu verstehen und darüber hinaus zu Reflexion über die eigenen Kindheitsgeschichten anregen, damit die Eltern sensibler auf ihr eigenes Kind reagieren können.

抄録：Selma Fraibergや同僚(1975)は、自分の子どもと暖かく調律した関係性を形成する能力に影響した、母親の過去からの体験として、『赤ちゃん部屋のお化け ghosts in the nursery』を概念化した。現代の乳幼児精神保健の介入では、発達しつつある子どもとの関係性について洞察すると同時にそれを強化するために、母親に母親自身の愛着関係の歴史について内省 reflect するように、しばしば求めている。この研究では、子ども時代の虐待 childhood maltreatment (CM)という母親の歴史と、その後の彼女の妊娠後期における出産前母親表象との間の関連を調査した。家庭内暴力 domestic violence (DV)についてコントロールすると、歪曲した出産前表象は、高率の自己報告された子ども時代の

身体的ネグレクトと関連していた。さらに、DV は表象と CM との間の関係性を緩和していた。たとえば、妊娠中に DV に曝され、歪曲した出産前表象を持つ女性は、子ども時代の身体的および性的虐待を報告する可能性が最も低かった。乳幼児精神保健の介入は、自分自身の子どもをより高い感受性を持って養育するために、自分の子ども時代の歴史に心理学的にアクセスし内省 reflect する親の能力を当てにしているが、その介入との関連で、この結果の意味が考察される。

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Selma Fraiberg and her colleagues (1975) used the metaphor "ghosts in the nursery" to explain the ways in which a mother's past and early relationships affect her understanding of and interactions with her infant. This idea has become an important aspect of empirically supported treatments aimed at strengthening the parent–child relationship (Berlin, Zeanah, & Lieberman, 2008). For example, Mary Dozier and colleagues (Dozier & Bick, 2007; Dozier, Lindhiem, & Ackerman, 2005) used the term "voices from the past" in her Attachment and Biobehavioral Catch-up intervention aimed at helping foster care parents identify issues from their own attachment relationships that interfere with parenting. The "Circle of Security," another intervention, uses the term "shark music" to help parents identify when their own past, and perhaps unconscious, experiences are triggering negative or unsafe feelings in their interactions with their child (Dozier et al., 2005; Marvin, Cooper, Hoffman, & Powell, 2002). Finally, Azar, Nix, and Makin-Byrd (2005) developed a cognitive-behavioral intervention to help parents identify and change their problematic parenting schemas, some of which relate to their own experiences of being parented. These empirically supported interventions hypothesize that helping parents recognize and resolve the negative experiences from their past will enable the formation of a positive relationship with their child as well as the representation of him- or herself as a parent.

Childhood maltreatment (CM; i.e., experiences of abuse and/or neglect in childhood) is one "ghost" that may become more salient during the transition to motherhood and may relate to the ways in which a woman begins to think of her own unborn child. In this study, we examined the association between a mother's history of CM ("ghosts" in her childhood) and her subsequent prenatal maternal representation of her child (i.e., the subjective way that a pregnant woman internally represents both who her child is and her relationship with the child; see Zeanah & Benoit, 1995). In addition, we sought to understand the ways in which mothers differed in their ability to psychologically access and report past experiences of CM, depending on their prenatal maternal representation of their child and their exposure to domestic violence (DV) during pregnancy. Previous research using data from the current sample found that DV is related to nonbalanced maternal representations (Huth-Bocks, Levendosky, Theran, & Bogat, 2004). In this research, we examined how DV during pregnancy influenced the ways in which women with nonbalanced maternal representations reflected on their past interpersonal traumas, including CM. We view this research as timely and important because many new and developing dyadic interventions for parents and young children ask caregivers to reflect on childhood experiences of traumatic events.

## CHILDHOOD ABUSE AND NEGLECT: RECOGNIZING THE "GHOSTS"

Relational theories (e.g., attachment and object-relations theories) help explain the mechanism through which CM influences an individual. These theories provide support for how the "ghosts"

of one's past develop and may become a persistent presence in future relationships; they also posit the existence of unconscious schemas that individuals develop of themselves and others. These schemas, or internal working models (IWMs), initially develop through interpersonal interactions with the primary caregivers, including experiences of loss and abuse (Bowlby, 1969). IWMs are kept outside of consciousness by defensive strategies that protect an individual from experiencing the inconsistencies between the reality of a relationship and the more tolerable conscious understanding of that same relationship (Bretherton, 1987). IWMs of attachment are expressed through observable patterns of behaviors reflecting a child's expectations of how others will care for him or her. For example, when an early caregiving relationship is characterized by instability, neglect, or abuse, a child responds with behaviors that represent conflicting cognitive strategies for having his or her needs met (e.g., moving toward the caregiver, but then freezing) (Main & Hesse, 1990; Main & Solomon, 1990). These behaviors may reflect that the child simultaneously desires care, but also is fearful of the interaction with the caregiver that may occur. CM can influence later developmental trajectories because, in adulthood, the IWMs that were adaptive in the face of CM can continue to influence interpersonal behavior (Fischer et al., 1997; Fonagy, Target, Gergely, Allen, & Bateman, 2003), including subsequent parenting behaviors (Hesse & Main, 1999; Lyons-Ruth, Bronfman, & Atwood, 1999). Therefore, as a woman becomes pregnant and anticipates a new, intimate relationship with her child, it is important to consider the ways in which her history of CM may affect her IWMs related to the anticipated caregiving.

Research examining IWMs primarily considers the individual's representations of his or her own prior attachment relationship with a caregiver that was developed during childhood and, by adulthood, is thought to be stable and functioning outside of conscious awareness (e.g., E. Carlson, 1998; Kobak, Cassidy, & Lyons-Ruth, 2006; Shaver & Mikulincer, 2005; Vondra, Shaw, Swearingen, Cohen, & Owens, 2001; Weinfield, Sroufe, & Egeland, 2000). More recent research has begun to extend the study of IWMs by considering the parent's subsequent representations of her own child and of her relationship with that child (Rosenblum, Dayton, & McDonough, 2006). Research has suggested that maternal prenatal representations of the unborn child are related to that child's attachment strategy after birth (Benoit, Parker, & Zeanah, 1997; Huth-Bocks et al., 2004) as well as to maternal representations of the child at 1 year of age (Fonagy, Steele, & Steele, 1991; Slade & Cohen, 1996; Theran, Levendosky, Bogat, & Huth-Bocks, 2005).

## PRENATAL MATERNAL REPRESENTATIONS

During pregnancy, the majority of women form maternal representations of their unborn children by the second or third trimester (Ammaniti et al., 1992; Lumley, 1982). These representations are the mother's internal and subjective experiences of the relationship between herself and her child during pregnancy (Zeanah & Benoit, 1995). Like other types of IWMs, maternal representations of the child tend to be relatively stable after their formation and serve as a guide for later parent–child interactions (Bretherton, 1990; Dayton, Levendosky, Davidson, & Bogat, 2008). A woman psychologically prepares for motherhood during pregnancy by reworking her representation of her own mother and simultaneously developing a representation of her unborn child and herself as a caregiver (Stern, 1995). In optimal development, this process results in the mother thinking of her child as an individual, separate from herself, who has the need for both care and autonomy.

A mother's internal representation of her child is likely to be related, in part, to her own childhood attachment experiences. George and Solomon (1999), however, describe an important

shift that takes place for an expectant mother as her own goal switches from being protected to being a provider of protection. This represents the activation of a maternal representation of the child, an IWM distinct from her attachment representation of her own childhood attachment experiences (e.g., her "attachment state of mind"); both types of representations affect the mother's parenting of her child. Thus, a mother's "attachment state of mind" reflects her experience of being cared for in her own childhood while her representation of her child develops when she prepares to take care of offspring and begin parenting.

Zeanah, Benoit, Barton, and Hirshberg (1996) identified three subtypes of maternal representations of the child (one balanced, two nonbalanced). *Balanced representations* are characterized as conveying "coherence, openness to change, richness of detail, and a sense of the caregiver as being engrossed in her relationship with the infant" (p. 18); *distorted representations* are characterized by inconsistency and unrealistic expectations of the child; and *disengaged representations* are characterized by emotional distance and indifference toward the infant (Zeanah et al., 1996). Dayton et al. (2010) found that prenatal maternal representations were related to parenting behaviors at 1-year postpartum. Specifically, balanced representations were associated with positive parenting (e.g., sensitive and joyful interactions), distorted representations were associated with covert hostility, and disengaged representations were associated with controlling behaviors. Coolbear and Benoit (1999) found that women classified as nonbalanced were more likely than balanced women to have infants with failure-to-thrive syndrome, which suggests that these mothers may have greater difficulty caring for their infants.

Few studies have considered the impact of the mother's early attachment relationships on her later prenatal maternal representations of her own child. The existing research has focused on prenatal attachment, which is related to, but not synonymous with, prenatal maternal representations (for a review, see Cannella, 2005). More specifically, prenatal attachment refers to the extent to which a mother engages in behaviors that are indicative of her bond to the infant and thus are related to her capacity to form a prenatal maternal representation of the child. Siddiqui, Hägglöf, and Eisemann (2000) found that expectant mothers who experienced emotional warmth from their own mothers were better able to establish an affectionate relationship with their unborn infant. However, findings from studies that have examined the relationship between quality of the mother's childhood caregiving relationships and later prenatal attachment have not all been consistent. For example, Schwerdtfeger and Goff (2007) found that self-reported maternal and paternal care and overprotection in the parent's own childhood were unrelated to prenatal attachment. Therefore, while there is some empirical evidence for a relationship between a parent's own history of caregiving experiences and his or her later prenatal attachment with the unborn baby, other contextual variables such as number of young children or whether the pregnancy was planned also may influence the way the expectant mother thinks about her baby (Pajulo, Helenius, & Mayes, 2006).

## PRENATAL MATERNAL REPRESENTATIONS OF WOMEN WITH HISTORIES OF CM

The current study examines whether a mother's history of CM is associated with her IWM of her child during pregnancy. We hypothesized that women with nonbalanced (i.e., disengaged or distorted) prenatal representations would report higher rates of CM.

Attachment theory suggests that histories of childhood trauma and abuse are associated with difficulty forming warm and trusting relationships with caregivers during childhood and with future offspring (V. Carlson, Cicchetti, Barnett, & Braunwald, 1989; Cicchetti & Toth, 1995;

Leon, Jacobvitz, & Hazen, 2004; Riggs & Jacobvitz, 2002). CM is therefore conceptualized as a factor that negatively influences representations of intimate relationships (Lyons-Ruth, Bronfman, & Atwood, 1999). Lyons-Ruth and Block (1996) found that mothers' histories of CM were related to their caregiving behaviors. Specifically, when interacting with their children, women with histories of physical abuse showed more hostile behaviors while women with histories of sexual abuse were more likely to show withdrawn interactions, characterized by flat affect. Thus, mothers with abuse histories may perceive their infants in a way that reflects a continuing pattern of difficult intimate, interpersonal relationships.

Consistent with Fraiberg's (1975) metaphor of "ghosts in the nursery," Main and Hesse (1990) suggested that mothers with unresolved trauma or loss behave toward their infants in ways that appear simultaneously frightening and frightened to her child. When relating to a child, a mother may unconsciously be frightened by stimuli that relate to her past trauma (Jacobvitz, Leon, & Hazen, 2006) or by her own feelings of helplessness and lack of control over her own emotions (George & Solomon, 1999). Lyons-Ruth, Bronfman, and Atwood (1999) explained that mothers with unresolved childhood trauma may be misattuned to their children because they are focused on their own fears or, in contrast, are able to respond to their child's cues only if they are synchronous with their own needs. In these unbalanced dyadic interactions, the mother's attachment needs are gratified at the expense of those of her child. Lyons-Ruth, Bronfman, and Parsons (1999) found that mothers of disorganized infants were generally misattuned to their children's needs and also showed intrusive behaviors and role confusion. These behaviors are suggestive of the internal inconsistency found in distorted narratives in the Working Model of the Child Interview (WMCI; Zeanah, Zeanah, & Stewart, 1990). Women with distorted representations often look to the infant for care and concern, and are overwhelmed and unsure about how to respond to their infants' needs (Zeanah et al., 1996). These feelings and representations about the infant already may be occurring during pregnancy. Women who later show frightening and/or frightened caregiving behaviors as a result of unresolved abuse also may display nonbalanced prenatal caregiving representations.

## DOMESTIC VIOLENCE AS A MODERATOR OF REPRESENTATIONS AND REPORTS OF CM

DV is another form of interpersonal violence that impacts the mother's emotional availability to connect with her child. Research from the larger longitudinal study from which this sample is drawn has examined maternal representations in relation to DV (Huth-Bocks et al., 2004; Theran et al., 2005). Women experiencing DV were more likely to describe their infants in less coherent and sensitive ways while perceiving themselves as less competent caregivers (Huth-Bocks et al., 2004). For these women, DV may not only lead to difficulty forming a warm and engaged internal representation but also activate or reactivate unintegrated thoughts and feelings of past interpersonal trauma.

In addition to being related to nonbalanced prenatal maternal representations, DV also may interfere with the ability of women with nonbalanced representations to reflect on past interpersonal trauma, specifically CM. Women who have nonbalanced prenatal representations may downplay the intensity of their childhood abuse when they experience continuing abuse (DV). DV may resurrect the "ghosts in the nursery," causing women to become guarded against acknowledging their own histories of violence exposure. These women may not have the capacity to reflect accurately on traumatic childhoods because they continue to face violence in the context of their pregnancies. This is consistent with theory describing the dissociative processes that

influence the memory system and IWMs in individuals who have experienced childhood abuse or relational trauma (Bailey, Moran, & Pederson, 2007; Liotti, 1999; Valentino, Cicchetti, Rogosch, & Toth, 2008). Women with nonbalanced representations are expected to have unresolved feelings about the past that lead them to think about their infant in unrealistic ways. When these women also experience DV, they will be more likely to either distort or disengage from their own childhood-abuse histories as an ego-defense, protecting against the understanding of "the self" as a perpetual victim.

In contrast, women with balanced representations were expected to be more likely to report past CM when they experienced DV during pregnancy. When a woman has a balanced representation of the child, even in the face of DV, she will likely display the capacity for tolerating difficult memories from her own past. Being able to acknowledge difficult experiences rather than dismiss or repress painful experiences is a sign of psychological health and well-being. For example, the Adult Attachment Interview (AAI; Main & Goldwyn, 1984) classifies women who have coherent perspectives on psychologically or physically harmful childhoods as *earned-secure*. Roisman, Padron, Sroufe, and Egeland (2002) explained that adults in the earned-secure category not only accurately report their difficult relationships with their caregivers but also report positive life change reflecting that they are not only thinking coherently about their past but also have experienced changes in their interpersonal environment that allowed for positive growth. This is in contrast to adults who are classified as "dismissing," who have the tendency to inaccurately normalize previous negative attachment experiences, and adults classified as "unresolved" who may have disorganized or incoherent narratives with "lapses" in reasoning and discourse (Hesse, 1999; Hesse & Main, 2000).

Women who experienced DV during pregnancy, but still manage to have balanced prenatal representations, likely draw upon other protective factors in their lives. For example, previous research examining parenting in women exposed to DV has suggested that factors such as maternal psychological health, social support, and marital satisfaction may buffer the negative impact of DV on parenting (Levendosky & Graham-Bermann, 2001; Levendosky, Leahy, Bogat, Davidson, & von Eye, 2006). Similar processes may occur for abused women who develop balanced representations.

Therefore, in this study, DV was expected to moderate the relationship between representations and the likelihood of endorsing childhood abuse. Specifically, it was expected that women with nonbalanced representations would be less likely to endorse childhood abuse of any kind when they experienced DV during pregnancy. While previous research has found that interpersonal traumas (both DV and CM) relate to nonbalanced prenatal representations (Huth-Bocks et al., 2004), prenatal attachment difficulties (Schwerdtfeger & Goff, 2007), and to later parenting (Levendosky & Graham-Bermann, 2001; Lyons-Ruth & Block, 1996; McCloskey, Figueredo, & Koss, 1995), it has not yet been empirically investigated whether women with specific classifications of maternal representations differ on their ability to reflect on childhood experiences of victimization, depending on their experiences of victimization during pregnancy (i.e., DV).

### *Hypotheses*

Therefore, based on the extant theoretical and empirical research, we examined the following hypotheses:

**H1:** CM will differ as a function of prenatal maternal representation. Specifically, women with nonbalanced representations will report higher rates of CM than will those with balanced representations, when controlling for DV during pregnancy.

This hypothesis was based on previous research from attachment theory and infant mental health that has considered the way childhood trauma affects maternal parenting behaviors (Egeland, Jacobvitz, & Sroufe, 1988; Jacobvitz et al., 2006; Lyons-Ruth & Block, 1996; Slade & Cohen, 1996).

**H2:** DV during pregnancy will moderate the relationship between representations and reports of CM, such that women with nonbalanced representations will be less likely to report CM experiences if they are exposed to DV during pregnancy.

In addition to a hypothesized main effect of an association between maternal history of CM and maternal prenatal representations of her child, the present study also examined whether women differed in their reports of CM depending on their classifications on the WMCI and experience of DV during pregnancy. That is, we hypothesized an interaction effect wherein a mother's prenatal internal representation interacts with her experience of DV to determine whether she is able to access painful memories of CM.

For both of these hypotheses, we expected these relationships to hold even when controlling for the effects of DV occurring at the time of the CM data collection.

## METHOD

### *Participants*

The sample for this study included 204 women in their third trimester of pregnancy from the mid-Michigan area who were participating in a longitudinal study examining the impact of DV on women and children. The women were recruited with flyers posted throughout three Michigan counties. We recruited at agencies and clinics serving women (e.g., ob/gyn offices, women's health clinics, social service programs, and childbirth classes) as well as businesses, libraries, county prosecutor's offices, and a DV shelter. The average age of the women in the sample was 25 years (range = 18–40, $SD = 5$). At the time of recruitment, during pregnancy, 41.7% were working outside of the home, and the median monthly income was $1,451. The recruitment sites were chosen to obtain a sample of women that varied in their ethnic background and economic status. Demographic information for the sample is presented in Table 1.

The sample size for the larger longitudinal study was 206. The final sample size for this study was 204 because the CM and the WMCI data were not imputable for 2 participants due to the variance ratio. At Wave 1, WMCI data for 3 of these participants was imputed using the hot-deck method within PRELIS/LISREL (Jöreskog & Sörbom, 2001). This method of imputation substitutes real values for missing values based on the responses of another participant (without missing data) who closely matches the participant with missing data on other specified variables. The maternal CM data were collected in the Wave 7 of the longitudinal study. At this wave, 177 women participated in the study (an 85.9% retention rate of the original 206 participants). Data for 24 women (of 204) who did not complete this wave of the study were imputed using the hot-deck method.

### *Procedures*

Women interested in participating in the study responded to recruitment efforts by contacting the research lab by telephone. The women received a brief screening to determine eligibility. The inclusion criteria required that women be (a) in the last trimester of pregnancy at the time

**TABLE 1.** *Demographic Characteristics of the Sample (N = 204)*

| | *N* | % |
|---|---|---|
| Racial/Ethnic Background | | |
| Caucasian | 130 | 63.7 |
| African American | 50 | 24.5 |
| Latina | 10 | 4.9 |
| Biracial | 8 | 3.9 |
| Native American | 2 | 1 |
| Asian American | 1 | .5 |
| Other | 3 | 1.5 |
| Education Level | | |
| ≤High School | 92 | 45.1 |
| Some College | 71 | 34.8 |
| Associate's Degree | 8 | 3.9 |
| Bachelor's Degree | 16 | 7.8 |
| Graduate Degree | 11 | 5.4 |
| Marital Status | | |
| Never Married | 102 | 50 |
| Married | 83 | 40.7 |
| Divorced | 10 | 4.9 |
| Separated | 8 | 3.9 |
| Widowed | 1 | .5 |

of the initial interview, (b) 18 to 40 years of age, and (c) involved in a romantic relationship for at least 6 weeks sometime during the pregnancy. Women were excluded from the study when they had limited facility of the English language and therefore would not be able to understand interviews and measures. The women who were excluded did not differ from the women who participated on demographic variables including age, current marital status, level of education, and race and ethnicity.

The initial interview at this wave of the study was conducted during the third trimester of pregnancy and was 3 hr in length. The WMCI (Zeanah et al., 1990) was administered to mothers by trained research assistants. At each data collection, informed consent was used that described the issues of voluntary participation, anonymity, and confidentiality.

The next wave of data collection relevant for this study occurred when the children were 5 years old. This interview consisted of a series of self-report questionnaires including the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998) and took less than 2 hr.

### *Measures*

*Maternal representations of the infant.* The WMCI (Zeanah, et al., 1990) is a semistructured interview that elicits parents' perceptions, thoughts, and feelings about their child. In this study, it was administered during the third trimester of pregnancy. Based on the women's narratives, the interviews are given one of three overall classifications to reflect the particular maternal representation of the child. These codes indicate balanced representations or nonbalanced

**TABLE 2.** *Mean and SDs of Reported Childhood Maltreatment (N = 204)*

| | *M* | *SD* | Range (0–20) |
|---|---|---|---|
| Physical Abuse | 2.42 | 3.55 | 0–14 |
| Sexual Abuse | 3.00 | 5.55 | 0–20 |
| Emotional Abuse | 4.05 | 4.78 | 0–18 |
| Physical Neglect | 2.23 | 3.44 | 0–15 |
| Emotional Neglect | 4.66 | 4.72 | 0–19 |

representations, including disengaged or distorted representations, as described in the literature review. Graduate students in clinical psychology were trained to code the interviews according to Zeanah et al.'s (1996) system. Interrater reliability was calculated using percent agreement and Cohen's $\kappa$ for overall classifications. Reliability analyses were completed on 26 interviews (13% of the sample). The agreement for overall classification was 96%, $\kappa$ =.94 ($p < .001$). When disagreements emerged, they were resolved through consensus. The use of conferencing as a resolution technique has been established in the literature as best-practice protocol in this field (Benoit et al., 1997). In the sample of 204 women participating in this study, 63 were classified as disengaged, 43 as distorted, and 98 as balanced.

*Childhood abuse and neglect*. The CTQ (Bernstein & Fink, 1998) is a 28-item self-report measure that asks participants to report experiences of abuse and neglect that occurred during childhood and adolescence. The measure has five subscales that look at emotional, physical, and sexual abuse as well as physical and emotional neglect. Examples of questions are: "I got hit so hard by someone in my family that I had to see a doctor or go to the hospital," and "I thought that my parent(s) wished I had never been born." Each question has a 5-point Likert scale that ranges from 0 (*never true*) to 4 (*very often true*). Using a factor analysis, Bernstein, Ahluvalia, Pogge, and Handelsman (1997) found that each of the five abuse scales loaded on its own factor. Thus, for this study, all five scales of the CTQ were used to see the impact of the distinct types of abuse. The CTQ has been found to have high internal consistency (from 0.79–0.94; Cronbach's $\alpha$) and good test-retest reliability at 3 months ($r = 0.80$) (Bernstein & Fink, 1998).

For this study, level of abuse was calculated as a continuous variable by adding the raw scores for each of the five types of abuse, resulting in a possible range of 0 to 20. Table 2 presents the mean, *SD*, and range for each CM scale. This measure was administered in Wave 7 of data collection to 177 women. The missing data for 27 women who did not complete this wave of the study were imputed.

*Domestic violence.* The Severity of Violence Against Women Scales (SVAWS; Marshall, 1992) is a 46-item self-report questionnaire that assesses for threats and violence a woman has experienced from her domestic partner. Some examples of items from the scale include "destroyed something belonging to you," "punched you," and "demanded sex whether you wanted to or not." For each item, women rate their experiences of abuse on a 4-point scale ranging from 0 (*never*) to 3 (*many times*). This measure was administered during pregnancy to assess DV from their current partner. Alpha was calculated to be .954. For this study, DV was coded as a dichotomous variable (present or absent) based on threats of moderate to serious

violence and mild to serious violence (including sexual violence) during pregnancy. This was based on the endorsement of any item between 9 to 46 on the SVAWS. In the sample for this study, 66 women reported DV during pregnancy, and 138 women reported no DV during pregnancy.

This measure also was administered during the Year 5 of data collection (with the CTQ) to 177 of the women. The missing data for women who did not complete this wave of the study were imputed. DV during Wave 7 was coded dichotomously using the same method that was used for DV occurring during pregnancy. In this wave, after imputation, 43 women experienced DV, and 161 did not experience DV.

## RESULTS

### *H1*

A between-subjects multivariate analysis of covariance was performed on the five dependent variables: physical neglect, emotional neglect, emotional abuse, physical abuse, and sexual abuse. Independent variables were DV during pregnancy (present and absent) and prenatal maternal representations (balanced, distorted, and disengaged). DV at Year 5 of the study was included as a covariate (present and absent) to account for the variance associated with DV collected concurrently with self-reports of CM.

With the Wilks's criterion, neither the main effect of DV during pregnancy, $F(5, 193) = .888$, n.s., partial $\eta^2 = .02$, nor the covariate of DV at Year 5 of the study, $F(5, 193) = 2.19$, n.s., partial $\eta^2 = .05$, were significant. There was a significant main effect for prenatal maternal representation, $F(10, 386) = 1.91$, $p = .047$, partial $\eta^2 = .05$. The combined dependent variables also were significantly related to the interaction between DV during pregnancy and prenatal maternal representations, $F(10, 386) = 2.00$, $p = .032$, partial $\eta^2 = .05$.

After controlling for DV at two time periods, only physical neglect significantly distinguished the three representation classifications, $F(2, 204) = 4.211$, $MSE = 45.33$, $p = .016$, partial $\eta^2 = .04$. An examination of the means (adjusted to take into account the covariate) with a post hoc comparison using the LSD tests revealed that women with distorted representations were more likely to report higher rates of physical neglect than were the women in the balanced group ($p = .023$). No other differences were significant. Table 3 presents the mean levels of each type of CM by prenatal representation.

**TABLE 3.** *Means and SDs of Childhood Maltreatment Based on All Three Forms of Representations*

| | Balanced ($N = 98$) | | Disengaged ($N = 63$) | | Distorted ($N = 43$) | |
|---|---|---|---|---|---|---|
| | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Physical Abuse | 1.84 | 3.09 | 2.73 | 3.84 | 3.28 | 3.91 |
| Sexual Abuse | 2.05 | 4.61 | 3.32 | 5.55 | 4.72 | 7.00 |
| Emotional Abuse | 3.74 | 4.56 | 3.55 | 4.37 | 5.46 | 5.61 |
| Physical Neglect | 1.42 | 2.70 | 2.56 | 3.76 | 3.60 | 3.97 |
| Emotional Neglect | 4.04 | 4.32 | 4.92 | 4.99 | 5.67 | 5.06 |

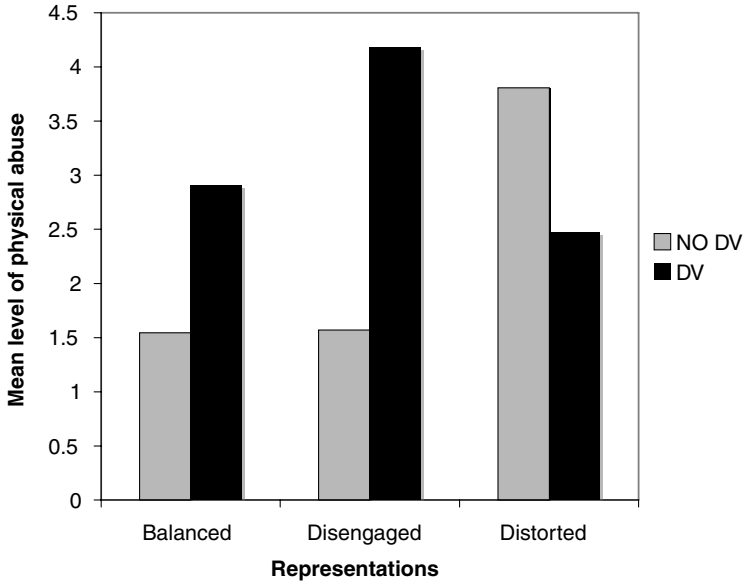


FIGURE 1. The interaction between prenatal representations and domestic violence (DV) for physical abuse.

***H2***

There was a statistically significant interaction between prenatal representations and DV during pregnancy. More specifically, the interaction was significant for both physical abuse, $F(2, 204) = 4.564$, $MSE = 51.87$, $p = .012$, partial $\eta^2 = .04$, and sexual abuse, $F(2, 204) = 3.67$, $MSE = 103.34$, $p = .02$, partial $\eta^2 = .04$. An examination of the means suggests that women with distorted representations were more likely to report highest levels of physical and sexual abuse when they did not experience DV during pregnancy; however, if women experienced DV during pregnancy and had distorted representations, they were less likely to report histories of physical and sexual abuse than were women with disengaged or balanced representations (see Table 3). These interactions are plotted in Figures 1 and 2.

## DISCUSSION

This research provides support for the importance of assessing CM and DV when working with mothers both pre- and post-pregnancy. Recent interventions that ask caregivers to reflect on their own relationship histories must take into account both the complexity with which the "ghosts in the nursery" influence the mother–child relationship and the ways recent violence likely impacts the mother's capacity to reflect on the past.

Our first hypothesis was that women with different prenatal representation classifications would differ in their reported histories of CM. This hypothesis was partially supported, such that women with distorted representations were more likely to report histories of physical neglect when compared to women with balanced representations. This suggests that the experience of neglect through not having one's basic needs met (i.e., food, clothing, medical attention) is a form

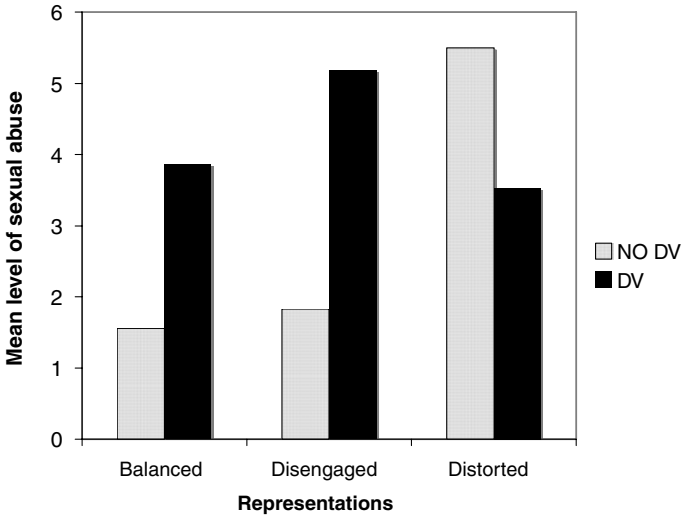


FIGURE 2. The interaction between prenatal representations and domestic violence (DV) for sexual abuse.

of CM that leads some pregnant women to form representations of their infants characterized by inconsistency and unrealistic expectations (e.g., the desire to be taken care of by the infant). Interestingly, the CM literature in general has focused more on the impact of physical and sexual abuse than on the impact of neglect (McSherry, 2007; Wolock & Horowitz, 1984). Although neglect often co-occurs with sexual and physical abuse, it is differentiated by the fact that it is rarely incident-specific and instead is characterized by chronic inattention and disregard for a child's needs (Hildyard & Wolfe, 2002). Research has yet to differentiate the impact of specific forms of CM on developmental trajectories. Related to parenting, Main and Goldwyn (1984) found that the mothers who felt rejected by their own mother would repeat such behaviors by developing a rejecting attitude toward their own child. Physical neglect in childhood may be internalized as an experience of parental rejection because motives may be attributed to the parent's inability or unwillingness to provide basic physical needs.

Fonagy et al. (1995) found that children with experiences of neglect were more likely to form future relationships in which they would again be neglected. Women with distorted representations may anticipate that just as their early relationships were not able to physically provide for them, neither will the experience of being a mother provide satisfaction for them. Physical neglect places age-inappropriate demands on children, forcing them to find ways of meeting their own needs and perhaps even their caregivers' needs. Distorted representations are related to "role reversal" within narratives (e.g., parents looking to the child to meet their own needs). Initial research has found evidence for intergenerational transmission of role reversal; specifically, women who described role reversal with their own mothers were more likely to engage in role reversal with their own 2-year-old daughters (Macfie, Mcelwain, Houts, & Cox, 2005). Childhood physical neglect may therefore influence future perceptions of nurturing relationships. Overall, the experience of physical neglect may lead to the later inability to internally care for another individual because of a history of relationships that lacked appropriate and fulfilling reciprocity.

In contrast to physical neglect, representation classifications were not differentiated by emotional neglect or by emotional, physical, or sexual abuse. The absence of a relationship between these other types of CM and representations may be explained in a number of ways. First, there may be no relationship whatsoever between these types of abuse and prenatal representations. A second possible explanation is that other factors may make a larger contribution to the maternal prenatal representations (e.g., DV). In addition, it is possible that the emotionally transformative experience of pregnancy may override the negative impact of being physically or sexually abused.

Note that victims of CM often reprocess these experiences in a way that leads to balanced or secure IWMs. This reworking of representations may allow some women with traumatic childhoods to experience cognitive integration, a process of resolution that includes the phases of denial, yearning and searching, disorganization and despair, and finally reorganization (Bowlby, 1980; George, 1996; Leon et al., 2004). Crandell, Fitzgerald, and Whipple (1997) found that it was not the quality of the mother's childhood experiences with her parents but the way she thought about them that related directly to her interactions with her young child. In addition, research has shown that prenatal maternal-caregiving representations influence postnatal caregiving behaviors and therefore affect attachment behaviors of the child (Crowell & Feldman, 1988; Jacobsen & Miller, 1999). Research examining the relationship between maternal history variables and IWMs has emphasized the resilience of many victims of CM, who, through reprocessing their experiences and modifying their IWM, do not develop maladaptive caretaking strategies (Egeland et al., 1988; Roisman et al., 2002). Therefore, subtypes of CM may not relate to nonbalanced caregiving representations because of the reworking of past experiences, which leads to the ability to form rich and connected descriptions of the unborn infant.

However, our second hypothesis provides an alternative way of explaining the lack of more conclusive main effects in the present study. We hypothesized that DV would moderate the relationship between representations and reports of past CM. More specifically, women with nonbalanced representations would be less able to access and coherently reflect on their own histories of trauma within relationships if they experienced DV during their pregnancies, thus leading to fewer of these women reporting histories of CM. Women with distorted prenatal representations were less likely to report histories of childhood physical and sexual abuse if they were abused by their intimate partners during pregnancy (see Figures 1 and 2). This finding is striking, given that women with distorted representations showed the highest overall means of physical and sexual abuse compared to women with balanced and disengaged representations (see Table 2).

However, contrary to expectations, women with disengaged representations continued to appear more similar to women with balanced representations. Specifically, both disengaged and balanced women reported higher rates of physical and sexual abuse if they experienced DV during pregnancy. Balanced women, even in the context of DV during pregnancy, were expected to have the capacity to later describe their experiences of CM without minimizing its occurrence. We expected that women with either type of nonbalanced representation would have more difficulty with this task; however, it may be that women who have both disengaged prenatal representations and DV during pregnancy do not defend against remembering abusive experiences. These women, who lack detailed narratives about their unborn children, may be able to report abuse on a self-report checklist. It is likely that just as they have closed off an affective connection to their expected child, they also have closed off the emotions related to negative experiences such as CM and thus can report them accurately without being flooded

by disorganizing feelings. These women likely would need interventions that help them not only form a more affectively rich and attuned narrative of their child but also may need some help experiencing feelings in general. Overall, women with disengaged representations were not more likely to have any type of CM nor was there any evidence that they lacked the capacity to accurately report such experiences when they were in a DV relationship.

In contrast to the disengaged and balanced women, women with distorted representations and DV during pregnancy displayed strikingly lower rates of physical and sexual abuse compared to women with DV and either balanced or disengaged representations. It has been previously established that DV is associated with outcomes of nonbalanced prenatal representations (Huth-Bocks et al., 2004). Regardless of the presence or absence of childhood maltreatment, the effects of DV concurrent with pregnancy impact the way a mother thinks of her child. The emergence of a distorted prenatal representation in pregnant women in abusive relationships may be driven primarily by the concurrent violence from their partner. Because these women report experiencing lower rates of physical and sexual abuse, the DV potentially may be experienced as an even greater stressor compared with women who have experienced childhood abuse, thus influencing the development of the distorted representation of the unborn child. Not used to abuse in intimate relationships, the presence of DV may disrupt the formation of prenatal maternal representations, leading to representations that are confused, contradictory, or bizarre (i.e., distorted).

While it is possible that these women, in fact, do have lower levels of physical and sexual abuse, there also is an alternative way of interpreting these results. A review of the literature has suggested that CM is highly associated with later abusive relationships (Noll, Horowitz, Bonanno, Trickett, & Putnam, 2003; Whitfield, Anda, Dube, & Felitti, 2003). While this does not reflect a deterministic relationship, it does lend support to a hypothesis that women with distorted prenatal representations may defend against memories of these specific forms of childhood abuse if they were still trapped in an abusive relationship during their pregnancy. This may be part of a dissociative process in which early traumatic experiences lead to fragmentation and later incoherence when presented with salient stimuli (Liotti, 1999). Physical and sexual abuse may be particularly difficult to process and reflect upon because of the stigma and direct bodily harm that occurs with these types of maltreatment. Women with distorted representations show inconsistent and unrealistic perceptions of their infants and also may have inaccurate perceptions of childhood abuse, especially when they continue to be exposed to violence. Women in the current study may have been better able to reflect upon experiences of DV compared to childhood physical and sexual abuse because they self-selected to participate in a study where they were told the researchers would ask questions about current experiences of DV.

While we do not have cross-validation reports to confirm that these women did, in fact, have higher levels of physical and sexual abuse in childhood than they reported, we can make a theoretical argument to support that IWMs guide the individual's way of viewing the world. A woman who experiences DV and simultaneously forms a distorted representation of her child may reconstruct her understanding of her childhood in a way that is most tolerable. For these women, reporting experiences of physical and sexual abuse would mean that they must accept that relationships in the past, present (i.e., partner during pregnancy), and future (i.e., perceptions of their baby) were and will be dysfunctional and/or dangerous. To preserve a sense of stability, these women may deny past experiences (either consciously or unconsciously) to maintain an internal sense that relationships can be stable or positive. It is not always the *content* of narratives that is most meaningful within clinical settings (Hesse, 1999); sometimes, the intrapsychic organization of information, as demonstrated by a *coherent* narrative, more clearly

guides the direction of the therapeutic work that must occur. Women with distorted prenatal representations who are in DV relationships may need infant mental health workers to provide them with a consistent relationship that feels safe and connected before they can begin to reflect on the ways that abuse from their childhood influences who they are and their expectations about relationships. Future research is needed to confirm these findings by using multiple methods of collecting childhood-abuse data (e.g., prospective data in addition to retrospective reports is needed or validating women's reports using Child Protective Services' reports).

### *Limitations*

There are several limitations in this study. First, this study used self-report, retrospective data in the measurement of past CM; thus, some participants may have over- or underreported their experiences of abuse. In fact, a hypothesis in this study is that certain individuals did, in fact, underreport their experiences of physical and sexual abuse. To improve the methodology of this study, it would have been useful to obtain corroborating reports of childhood abuse from family members and legal documents; however, CM research requires sensitivity to the participant's trauma and attention to ethical issues. Thus, it would have been potentially invasive to collect this corroborating data, which was secondary to the main hypotheses of the larger longitudinal study. Other researchers have found support for retrospective reports of CM. For example, Herman and Schatzow (1987) were able to find corroborating reports or strong evidence for 83% of the 53 women in their sample who retrospectively reported child sexual abuse. In addition, Brewin, Andrews, and Gotlib (1993) stated in their review article that although retrospective self-report measures of child abuse reflect flawed methodology, they are reasonably accurate. They explained that consistent with some reconstructionist theories, some details surrounding memories of CM may be inaccurate; however, a memory of CM reflects a salient experience that was consequential and unlikely to be false. In fact, they indicated that CM is more likely to be underreported on retrospective measures. Trauma theories suggest that it is more likely for people to block out memories of CM that are too painful to hold in consciousness rather than invent memories of trauma (Freyd, DePrince, & Zurbriggen, 2001; Terr, 1991). Therefore, research has supported that fact that although the use of retrospective self-report measures is not ideal, traumatic experiences are more likely to be underreported than be overreported.

Another limitation is that the CTQ did not provide information on the age at which the abuse took place nor the identity of the perpetrator. Future research should examine whether the particular stage of development during which the abuse took place may influence different outcomes of prenatal representations. Perhaps abuse that occurs at an earlier age is more damaging to IWMs than is abuse that occurs after an individual has a more developed sense of self and other. This would be consistent with other research that has found that timing of maltreatment in childhood is associated with later differences in psychological and behavioral outcomes (Keiley, Howe, Dodge, Bates, & Petit, 2001; Thornberry, Ireland, & Smith, 2001). Data indicating the specific identity of the perpetrator also would be useful for differentiating abuse that comes from a primary caregiver versus another relative or someone outside of the family. It is expected that abuse would have the most damaging long-term effects if the perpetrator were a primary caregiver (Ketring & Feinauer, 1999; Ullman, 2007).

Another limitation in this study was that the CM data were collected at a different year of the longitudinal study than were the prenatal representations data. This means that there was opportunity for additional negative interpersonal experiences to influence the reports of CM. However, we accounted for this limitation by controlling for the presence of DV both during

pregnancy and during the year the CM data were collected. DV, at either time point, was not differentiated by the presence or absence of CM. In addition, our findings held even controlling for these later experiences of DV.

One final way that this study could be strengthened is through the consideration of not only the impact of negative early experiences (i.e., "ghosts") but also the positive early experiences. Lieberman, Padrón, Van Horn, and Harris (2005) encouraged researchers and clinicians to extend Fraiberg's (1995) metaphor to include the "angels in the nursery." This reminder speaks to the importance of using positive early experiences to help promote an individual's growth and understand pathways of resilience.

### *Clinical Implications*

Despite the limitations of this study, we believe that our findings contribute to current directions within clinical settings. Contemporary and exciting new interventions bridge the gap between attachment theory and infant mental health relational therapy (Cooper, Hoffman, & Powell, 2005; Dozier et al., 2005; Lyons-Ruth & Spielman, 2004; Steele & Baradon, 2004). These interventions have shown initial empirical support and have suggested that an important aspect of infant mental health is to ask caregivers to reflect upon and possibly rework representations of their earlier relationships. Our findings are applicable to clinical and applied settings where pregnant women are receiving mental health treatment. The practice of assessing histories of multiple types of abuse and maltreatment, including DV, among expectant mothers may help guide practitioners to determine the type of support these women need. Pregnancy may be the ideal time for such relational interventions. Prior to the birth of the child, mothers who have histories of abuse may be most motivated for such therapeutic work as they anticipate the arrival of and a new relationship with their own baby.

A history of childhood physical neglect was associated with distorted representations, even controlling for DV, in our study. Physical neglect is a silent form of maltreatment that may not even be recognized by the child. Limited food, clothing, supervision, and medical care result not only from inattention to a child's needs but also lack of resources and extreme poverty; however, reports of not feeling adequately provided for directly related to inconsistencies and unrealistic expectations in these women's narratives. Prenatal care should screen for histories of childhood physical neglect. These women would benefit from additional support during and after their pregnancy.

Consistent with Fraiberg's (1975) original conceptualization of parent–infant psychotherapy, contemporary infant mental health treatment protocols emphasize the development of a therapeutic alliance between the parent and the therapist (Lieberman, Silverman, & Pawl, 2000). The therapeutic relationship becomes a supportive "holding environment" in which the infant mental health worker cares for the mother and helps her to process the ways in which her needs were not met as a child. In this way, the infant mental health worker helps to create a therapeutic bond where the expectant mother feels that she is now being cared for. Given our finding that prior neglect plays a role in the development of the mother's internal representation of her unborn child, it might be important for clinicians to ask about the mother's physical needs during her pregnancy so that the mother could have a new experience of being cared for to counteract her earlier experiences of neglect.

Our findings suggest that a mother's ability to access these kinds of memories is dependent on the type of representation she has formed of her child and whether she is currently being exposed

to DV. Specifically, women who have experienced DV during their pregnancy and also have distorted representations may not be able to easily reflect upon their experiences of childhood physical and sexual abuse. Experiences of DV during pregnancy may be a potential barrier to the reflection and resolution of trauma within some of the current parent–child interventions. To address this issue in the context of an intervention, infant mental health workers should first work with women who are experiencing DV to find a way to protect themselves from their abusive partner. This will reduce not only the physical danger but also the psychological harm that is interfering with the woman's developing representation of her child.

In conclusion, this study provides continuing evidence for the ways in which "ghosts in the nursery" impact mother–child relationships. While some of these "ghosts" may be close to the surface and easy to reflect upon, others may lie latent until resurrected by the recurrence of violence within another relationship. Bridging the gap between theory, research, and clinical practice provides a nuanced view of the development of parent–child relationships within the field of infant mental health.

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