A MOTHER'S BORDERLINE PERSONALITY DISORDER AND HER SENSITIVITY, AUTONOMY SUPPORT, HOSTILITY, FEARFUL/DISORIENTED BEHAVIOR, AND ROLE REVERSAL WITH HER YOUNG CHILD

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There is some evidence that maternal borderline personality disorder (BPD) adversely affects parenting in infancy, resulting in disorganized attachment, which longitudinally predicts BPD symptoms in adulthood. We examined parenting related to disorganized attachment beyond infancy in offspring of mothers with BPD, when parenting becomes a goal-corrected partnership. We observed puzzle solving in a low socioeconomic status (SES) sample of mothers with BPD and their children ages 4–7, $n = 36$, and normative comparisons, $n = 34$. Compared with normative mothers and controlling for maternal mood disorders, mothers with BPD were less likely to be sensitive and provide autonomy support, and were more likely to be hostile and display fearful/disoriented behavior and higher levels of parent-child role reversal. We additionally found correlations between parenting and self-reported maternal borderline features. We discuss implications for child development, including possible transmission of BPD from mothers to children via representational models, and developmentally appropriate preventive interventions.

Individuals with borderline personality disorder (BPD) report more intense and frequent emotional pain than do individuals with other personality disorders: anger, fear, insecurity, and shame (Zanarini, Frankenburg, DeLuca, et al., 1998). Preoccupied with negative emotions, a mother with BPD may find parenting a young child difficult (Stepp, Whalen, Pilkonis, Hipwell, & Levine, 2012). Clinicians report that they often find someone with BPD challenging due to insistent requests for care, inappropriate expressions of anger, and threats of self-harm (Gunderson, 2001), but how does a young child experience a mother with BPD? This is an important question because the prevalence of BPD is estimated to be between 0.5 and 5.9%, with a median of 1.35% in the community as a whole, 10% in outpatients, and 15–25% in

inpatients (Leichsenring, Leibing, Kruse, New, & Leweke, 2011). Moreover, the disorder is diagnosed almost exclusively during a woman's childbearing years (Paris, 1993; Stone, 1993; Zanarini, Frankenburg, Hennen, & Silk, 2003), beginning in adolescence, with the greatest decrease seen after age 44 (Grant et al., 2008). BPD may be assessed as a categorical diagnosis for which 5 out of 9 symptoms must be present (American Psychiatric Association, 2013), as well as along a continuum of number of BPD symptoms or self-reported borderline features (affective instability, negative relationships, identity disturbance, and self-harm), which are highly correlated with a diagnosis (Morey, 1991, 2007).

Personality disorders are theorized to affect parenting by necessitating the child see the parent's perspective on reality rather than the parent being empathic to child's perspective, for example, through high levels of parent-child role reversal in which the parent looks to the child for care, or through the experience of maltreatment (Göpfert & O'Shaughnessy, 2015; Newman & O'Shaughnessy, 2015). Being able to see others' perspectives, which is termed *mentalizatio*n or reflective functioning, is defined as the ability to understand one's own and others' behavior in terms of underlying mental states and intentions (Fonagy, Target, & Gergely, 2000). Mentalization is coded from transcripts of the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1984; Main, Goldwyn, & Hesse, 2002), and individuals with BPD are uniquely poor at mentalization compared to those with other disorders (Fonagy et al., 1996). Moreover, individuals with BPD are more likely to remain preoccupied (e.g., angry) with their own difficult childhoods and be less able to resolve their experiences of loss and/or abuse than are normative comparisons (Bakermans-Kranenburg & van IJzendoorn, 2009; Macfie, Swan, Fitzpatrick, Watkins, & Rivas, 2014). Difficulty with mentalization, preoccupation with, and lack of resolution of, their own childhoods may make parenting difficult for mothers with BPD.

In a meta-analysis, there was a significant effect for pregnant mothers' lack of resolution of loss or abuse predicting mother-infant disorganized attachment in infancy (Madigan et al., 2006). Albeit in a small sample, $n = 10$, 80% of infants of mothers with BPD were categorized as disorganized at 12 months (Hobson, Patrick, Crandell, García-Pérez, & Lee, 2005), the same proportion found in maltreated children (V. Carlson, Cicchetti, Barnett, & Braunwald, 1989). Disorganized attachment is coded from filmed mother-infant interactions when the infant appears caught between approach and avoidance on reunion following a separation from mother, such as displays of fear, contradictory behaviors, stereotypies, freezing, and apparent dissociation (Main & Hesse, 1990).

How is parenting in mothers with BPD, who themselves may be preoccupied and unresolved and their infants disorganized, affected? A review of the empirical research found that mothers with BPD had difficulty understanding, empathizing with, and responding to their infants' needs (Laulik, Chou, Browne, & Allam, 2013). Specifically, when infants were 2 months (Crandell, Patrick, & Hobson, 2003) and when they were 12 months (Hobson et al., 2005), mothers with BPD were more insensitively intrusive than were normative comparisons. Additionally, for infants with an average age of 3.4

months, mothers with BPD engaged in less smiling, touching, game playing, and imitation than did healthy controls. Moreover, mothers with BPD were less able to recognize infant emotions than were normative comparisons (Elliot et al., 2014). Further, in a sample of offspring aged 3 to 36 months, mothers with BPD were less sensitive and supportive of autonomy (although not more hostile) than were normative comparisons (Newman, Stevenson, Bergman, & Boyce, 2007). Additionally, mothers with BPD displayed more fearful/disoriented behavior in response to their 12-month-old infants' bids for interaction than did both mothers with major depressive disorder (MDD) and normative comparisons (Hobson et al., 2009). In summary, BPD makes it more likely that mothers are less sensitive and supportive of autonomy and more likely to exhibit fearful/disoriented behavior with their infants than are comparison mothers.

However, samples of mothers with BPD in these studies were small, ranging from 8 to 17. Thus, in addition to assessing mothers with a BPD diagnosis, researchers have assessed either self-reported borderline features or number of BPD symptoms in normative samples. For example, 22 mothers in the clinical range of borderline features in a normative sample became increasingly insensitive towards their infants ages 12–23 months the longer the infant continued to show distress, a pattern not seen in mothers with low levels of borderline features (Kiel, Gratz, Moore, Latzman, & Tull, 2011). Further, in a sample of 145 normative families, mothers' and fathers' BPD symptoms were associated with low quality of parental responsiveness to children ages 3–6 years, but the average number of BPD symptoms was less than two (Wilson & Durbin, 2012). Similarly, in a sample of 922 normative families, BPD symptoms were associated with parental self-preoccupation and impulsive aggression towards children average age 4 years 5 months, but the average number of BPD symptoms was again less than two (Berg-Nielsen & Wichström, 2012). These studies have the advantage of larger sample sizes, but have the disadvantage of lower levels of BPD pathology than studies of offspring of women with a diagnosis of BPD. Moreover, the studies of offspring beyond infancy did not assess dimensions of parenting associated with disorganized attachment, including levels of role reversal, which are important as the parent-child relationship becomes more of a goal-corrected partnership in which both parent and child play reciprocal roles (Main, Kaplan, & Cassidy, 1985).

THE CURRENT STUDY

We examined parenting in mothers with BPD beyond infancy. We focused on aspects of parenting with an empirical relationship to disorganized attachment—sensitivity, support for autonomy, hostility, fearful/disoriented behavior (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999)—and levels of parent-child role reversal (Macfie et al., 2014; Main & Cassidy, 1988; Main et al., 1985).

We observed mothers with BPD and normative comparisons interacting with children ages 4–7. In addition to assessing BPD as a categorical

diagnosis, we assessed BPD along a continuum of self-reported borderline features (Morey, 1991). Because BPD is highly comorbid with mood disorders (Zanarini, Frankenburg, Dubo et al., 1998), and because of the deleterious effect of mood disorders on child development (Beardslee, Versage, & Gladstone, 1998; DelBello & Geller, 2001; Downey & Coyne, 1990), we controlled for current mood disorders (major depressive disorder, bipolar disorder, dysthymia) in tests of group differences. We also planned to control for any demographic variables that were significantly different between the groups, given the relationship between low socioeconomic status (SES) and BPD (Grant et al., 2008). We hypothesized that: (1) mothers with BPD would be lower on sensitivity and autonomy support, higher on hostility, exhibit more fearful/disoriented behavior and higher levels of role reversal with their children than would normative comparisons. We also examined the relationship between BPD and parenting in terms of continuous self-reported borderline features and hypothesized that: (2) in the sample as a whole, self-reported borderline features (affective instability, identity disturbance, negative relationships, and self-harm) would be correlated with maternal sensitivity, autonomy support, hostility, fearful/disoriented behavior, and role reversal.

METHOD
PARTICIPANTS

The sample consisted of $N = 70$ mothers and children from a mostly low SES background: $n = 36$ children whose mothers had BPD and $n = 34$ children in a normative group, whose mothers had no current diagnosis of psychopathology. There were 35 boys and 35 girls, 11% Hispanic, and 11% from a minority ethnic background. The children's average age was 5 years 4 months, $SD = 11$ months (range 4–7 years). See Table 1 for child age and demographic variables in each group.

We recruited participants from a five-county region consisting of both urban and rural districts. Exclusionary criteria included inability to give informed consent for any reason or the presence of psychosis. We recruited mothers with BPD from two sources, clinicians in mental health settings and directly from the community. Clinicians included therapists, psychiatrists, nurse practitioners, and case managers. Clinicians learned about the study from continuing education treatment workshops for BPD, where they received brochures that described the study and listed symptoms for a BPD diagnosis. We provided clinicians with brochures to give to their clients, which described what participation would involve. We additionally recruited mothers with BPD directly from the community with flyers placed throughout the five-county region. Questions included: "Do you fear abandonment in relationships?," "Do you find it difficult to control your anger?," "Are you very impulsive?," "Do your relationships have extreme ups-and-downs?," and "Have you hurt yourself or threatened to do so?"

Similarly, we recruited normative comparison participants from two sources, programs for children and directly from the community. Programs

TABLE 1. Demographic Differences Between the BPD and Normative Comparison Groups

Variable	Whole sample	BPD	Normative	BPD vs. normative
	N = 70	n = 36	n = 34	
	M (SD)	M (SD)	M (SD)	t
Child age (years)	5.37 (0.90)	5.36 (0.93)	5.37 (0.87)	0.11
Family yearly income ($)	31,841 (27,854)	29,400 (19,294)	34,400 (34,841)	0.76
No. of adults in home	1.83 (0.78)	1.86 (0.80)	1.79 (0.77)	0.36
No. of children in home	2.47 (1.16)	2.61 (1.25)	2.32 (1.07)	1.03
				λ^2
Child gender (girls)	50%	53%	47%	0.23
Child minority ethnic background	11%	11%	12%	0.01
Child Hispanic	11%	14%	9%	0.44
Mother graduated high school or GED	89%	81%	97%	4.71*
Mother has partner	57%	56%	59%	0.08

*$p < .05$.

included preschools, Head Start, and Boys and Girls Clubs. Research assistants set up tables when mothers dropped off or picked up their children. They handed mothers brochures and invited them to call if they were interested in participating. We also recruited comparison mothers directly from the community with flyers. These flyers asked mothers if they had a child ages 4–7 and would be interested in participating in a study on child development.

PROCEDURES AND MEASURES

Overall. Two research assistants went to each participant's home or another meeting place suggested by the participant. They obtained informed consent, a maternal self-report of BPD and mood disorder symptoms, and demographic information. A research assistant then invited the participant and her child to the university for an approximately 3-hour visit. We provided transportation and babysitting for siblings. On this visit, a clinical psychologist assessed maternal psychopathology with a clinical interview, and research assistants filmed the mother and child solving puzzles.

Demographics. Demographic information was collected with a maternal interview (Mount Hope Family Center, 1995). See Table 1 for details.

BPD. We assessed BPD for all mothers with a self-report screen and then with the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997). A licensed clinical psychologist trained to administer and score the SCID-II conducted the interviews. High inter-rater reliability ($k = .91$) has been found for the diagnosis of BPD using the SCID-II (Lobbestael, Leurgans, & Arntz, 2011).

Borderline Features. We assessed borderline features for all mothers with the Personality Assessment Inventory (PAI; Morey, 1991). The PAI reflects the multifaceted nature of BPD revealed in factor analytic studies and has

TABLE 2. Descriptives for Maternal Borderline Features

Maternal borderline feature variable	Whole sample	BPD	Normative
	N = 70	n = 36	n = 34
	M (SD)	M (SD)	M (SD)
Affective instability	8.16 (6.16)	13.00 (4.20)	3.03 (2.83)
Identity disturbance	7.32 (5.41)	11.38 (4.17)	3.03 (2.42)
Negative relationships	9.40 (5.59)	13.31 (3.38)	5.26 (4.34)
Self-harm	3.90 (4.34)	6.69 (4.36)	0.94 (1.30)

shown high internal consistency in census, college, and clinical samples (Morey, 1991). There are four subscales: *affective instability*—intense and unmodulated emotional experiences especially anger; *identity disturbance*—confusion about identity and lack of an integrated sense of self; *negative relationships*—acute dependence, fear of abandonment, and distrust; and *self-harm*—impulsivity and tendencies to hurt the self when feeling distressed, characteristic of individuals with BPD. In the current sample, a BPD diagnosis (yes/no) was significantly correlated with *affective instability* $r = .81$, $p < .001$, *identity disturbance*, $r = .80$, $p < .001$, *negative relationships*, $r = .72$, $p < .001$, and *self-harm*, $r = .66$, $p < .001$. Cronbach's alpha, a measure of internal consistency, for the total of the subscales was $\alpha = .93$ in the sample as a whole, $\alpha = .85$ in the normative comparison group, and $\alpha = .87$ in the BPD group. See Table 2 for descriptive statistics.

Mood Disorders. We assessed current mood disorders (major depressive disorder, bipolar disorder, and dysthymia) as control variables first on the home visit with a preliminary self-report screen and then in the laboratory with the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I; First, Gibbon, Spitzer, & Williams, 1996). A licensed clinical psychologist trained to administer and score the SCID-I conducted the interviews. The SCID-I has high inter-rater reliability for mood disorders using kappa statistics (Lobbestael et al., 2011). Forty-one percent of the mothers with BPD had a current mood disorder. None of the comparison mothers met criteria for a current mood disorder.

Mother-Child Interaction. A research assistant videotaped the mother and her child during a 10-minute puzzle-solving session in the laboratory. The mother and child sat at a child-sized table. A second research assistant told mothers: "This puzzle is for your child to complete, but feel free to give any help you think your child might need." The research assistant presented one puzzle at a time to the child in order of increasing difficulty, presenting the next one when the previous one was completed.

Mother-child interaction variables were coded from videotapes utilizing the Qualitative Ratings of Parent/Child Interaction at 54 months (Cox, February 1997), which includes adaptations from scales developed by Margaret Tresch Owen and Deborah Vandell for the NICHD Study of Early Child Care, and by L. Alan Sroufe and colleagues for the Mother-Child Project at the University of Minnesota with preschool-aged children (Sroufe, Jacobvitz,

TABLE 3. Group Differences in Mother-Child Interaction Variables: Univariate *F*-Tests, Effect Size, and Observed Power

Mother-child interaction variable	Whole sample	BPD	Normative	*F*(*df*)	η^2	Observed power
	N = 70	n = 36	n = 34			
	M (SD)	M (SD)	M (SD)	F(1, 65)		
Maternal sensitivity	4.20 (1.65)	3.56 (1.42)	4.88 (1.61)	11.64**	.15	.92
Maternal autonomy support	4.13 (1.67)	3.58 (1.52)	4.71 (1.64)	6.15*	.09	.68
Maternal hostility	2.60 (1.58)	3.06 (1.55)	2.12 (1.49)	5.92*	.08	.67
Maternal fearful/disoriented behavior	1.29 (0.93)	1.47 (1.23)	1.09 (0.38)	4.34*	.06	.54
Mother-child role reversal	2.41 (1.39)	3.06 (1.45)	1.74 (0.93)	15.41***	.19	.97

*$p < .05$. **$p < .01$. ***$p < .001$.

Mangelsdorf, DeAngelo, & Ward, 1985). There is support for the validity of the Parent/Child Interaction scales in their relationship to infant attachment (Frosch, Cox, & Goldman, 2001; McElwain, Cox, Burchinal, & Macfie, 2003). These scales have now also been used with parent-child dyads for children up to age 11 years to predict externalizing symptoms (Wang, Christ, Mills-Koonce, Garrett-Peters, & Cox, 2013). We also adapted a scale of fearful/disoriented behavior developed for mothers of infants (Lyons-Ruth, Bronfman, & Parsons, 1999) in consultation with Karlen Lyons-Ruth. All codes are 7-point scales, with a score of "1" indicating that the category is not at all indicative of the observed mother-child interaction and a score of "7" indicating that the variable is highly characteristic of the observed inter-action. Intermediate scores are also given. See Table 3 for descriptives.

Maternal Sensitivity. Maternal sensitivity refers to the mother's responsiveness to the child's needs and cues. It includes maternal behaviors such as acknowledging the child's accomplishments, praising the child, being reassuring, calm, and encouraging when the child is experiencing difficulties with the task, and providing an affectively positive "secure base" for the child. Low sensitivity obtains when the mother is predominantly following her agenda rather than the child's, so that interactions are ill timed or inappropriate, or she is detached, aloof, or unavailable.

Maternal Autonomy Support. Maternal autonomy support reflects the degree to which the mother acts in a way that recognizes and respects the validity of the child's individuality, motives, and perspectives. High autonomy support reflects the ability to acknowledge the validity of the child's perspective and to use this information to negotiate interactions without being intrusive. Low autonomy support reflects high intrusiveness and power assertive techniques to get the child to comply.

Maternal Hostility. Maternal hostility is evident in the frequency and intensity of negative regard toward the child, including disapproval, abruptness, harshness, and tense body or facial expressions. Hostile maternal behaviors include both instances of punitive aggression (e.g., hitting the child) and/ or a pervasive display of anger, distrust, frustration, impatience, or general

dislike. A low score reflects the absence of the above indicators of negative regard for the child.

Maternal Fearful/Disoriented Behavior. Maternal fearful/disoriented behavior refers to instances when the mother: (a) appears inexplicably frightened, apprehensive, or deferential in relation to the child, (b) becomes disoriented, dissociative, or disorganized, or (c) exhibits fearful or disoriented voices. High scores indicate the presence of persistent fearful or disoriented behaviors with little or no ameliorating behaviors (e.g., exhibits a frightened expression or irrational fear, actively recoils from the child, displays freezing or stilling behavior, withdraws into a trance, or uses a "haunted" voice). Low scores reflect the absence of these behaviors.

Mother-Child Role Reversal. Role reversal combines two of the Sroufe and colleagues' (1985) scales: (a) maternal seductive care and (b) role reversal more generally, which includes child as the mother's caretaker or child as mother's peer. The scale assesses the degree to which the parent and child maintain appropriate role relationships. Role reversal is defined as behavior that is in response to the parent's needs and unresponsive to the needs of the child. Examples of role reversal include the child taking on a parental role (e.g., mother defers to the child's commands), a playmate relationship between parent and child (e.g., child abandons the task to race around the room and mother joins him or her, rather than setting limits), or maternal seductive behavior, in order to demand closeness or affection from the child (e.g., mother takes child's attention away from the task by asking him to give her a kiss). Appropriate parent-child boundaries reflect the absence of role reversal.

Coding and Reliability. None of the coders were involved in the administration of the mother-child interaction or knew the dyad's BPD group status. Inter-rater reliability was assessed using intraclass correlation coefficients (Winer, Brown, & Michels, 1991) on 39% of the sample for the fearful/disoriented scale and on 30% of the sample for all other codes. For *maternal sensitivity*, r_i = .87; *maternal autonomy support*, r_i = .73; *maternal hostility*, r_i = .79; *maternal fearful/disoriented behavior*, r_i = .94; and *role reversal* r_i = .89.

RESULTS
PRELIMINARY ANALYSES

There was a significant difference between mothers with BPD and normative comparisons on whether or not they had a high school education. See Table 1. However, because high school education did not correlate significantly with any of the dependent variables, we did not control for it when testing hypotheses. We tested the parenting variables for skewness and outliers. There were no outliers, and skewness was less than 0.70 for all variables except for fearful/disoriented behavior, for which skewness was 4.32 (*SE* =

TABLE 4. Correlations Between Maternal Borderline Features and Mother-Child Interaction Variables

| Mother-child interaction variable | Maternal Borderline Features | | | |
	Affective instability	Identity disturbance	Negative relationships	Self-harm
Maternal sensitivity	−.31**	−.30*	−.38**	−.16
Maternal autonomy support	−.23†	−.26*	−.28**	−.08
Maternal hostility	.31**	.36**	.44**	.08
Maternal fearful/disoriented behavior	.19	.29*	.10	.14
Mother-child role reversal	.44***	.45**	.42***	.23†

Note. †*p* < 10. **p* < .05. ***p* ≤ .01. ****p* ≤ .001.

0.29). We therefore log transformed the fearful/disoriented behavior before conducting analyses.

HYPOTHESIS TESTING

We conducted a MANCOVA to test hypothesis 1, with BPD group status as the independent variable, and with maternal sensitivity, autonomy support, hostility, mother-child role reversal, and maternal fearful/disoriented behavior as dependent variables. We entered mood disorders (major depressive disorder, dysthymia, bipolar disorder) as covariates. There were no significant main effects for the covariates. However, there was a significant main effect for group status, Wilks's approximate $F(5, 61) = 4.21$, $p < .01$, $\eta^2 = .26$, observed power = .94. Univariate tests revealed that mothers who had BPD demonstrated significantly less sensitivity and autonomy support, more hostility, more role reversal, and more fearful/disoriented behavior in interactions with their children than did comparison mothers. See Table 3 for details of the univariate tests.

We tested hypothesis 2 with bivariate Pearson correlations. Maternal sensitivity and autonomy support correlated negatively with mothers' affective instability, identity disturbance, and negative relationships as predicted, but not with self-harm. Moreover, maternal hostility correlated positively with mothers' affective instability, identity disturbance, and negative relationships as predicted, but not with self-harm. Role reversal also significantly correlated with mothers' affective instability, identity disturbance, and negative relationships as hypothesized, and marginally significantly with self-harm. Maternal fearful/disoriented behavior significantly correlated with identity disturbance as predicted, but not with the remaining borderline features. See Table 4 for correlation coefficients.

DISCUSSION

We examined mothers with BPD's parenting in early childhood with variables related to infant disorganization. Controlling for current maternal mood disorders, findings for mothers with BPD with young children converged with those from infancy in terms of less maternal sensitivity and au-

tonomy support (Crandell et al., 2003; Hobson et al., 2005; Newman et al., 2007) and more frightening/disoriented behavior (Hobson et al., 2009) than in normative comparisons. We also found more hostility and role reversal in the mother-child relationship in early childhood, as theorized by Göpfert and O'Shaughnessy (2015).

Mirroring findings from BPD group differences, analyses with a continuous self-report measure of maternal borderline features revealed significant correlations between affective instability, identity disturbance, and negative relationships, as well as problems with sensitivity and autonomy support, hostility, and role reversal. Interestingly, fearful/disoriented behavior was the only behavior associated with the borderline feature of maternal identity disturbance. This is consistent with findings that fearful/disoriented behavior is associated with loss and/or abuse, which remain unresolved rather than being integrated into a coherent sense of self (Main & Hesse, 1990).

Offspring of women with BPD are considered to be at high risk for developing the disorder themselves (Lenzenweger & Cicchetti, 2005). Lower sensitivity, less support for autonomy, and higher hostility in mothers with BPD than in comparisons may continue into adolescence and potentiate the development of BPD. For example, in a cross-sectional study, maternal hostility was associated with BPD symptoms in offspring age 15 (Herr, Hammen, & Brennan, 2008). Further, a lack of sensitivity assessed as maternal withdrawal from the infant's attachment cues at 18 months predicted BPD symptoms in late adolescence (Lyons-Ruth, Bureau, Holmes, Easterbrooks, & Brooks, 2013). Moreover, there was a reciprocal relationship between maternal harsh punishment/low warmth (related to hostility/sensitivity) when adolescents were 14 and adolescent BPD symptoms at age 15 (Stepp et al., 2014). Additionally, maternal borderline features mediated the relationship between mothers' support for autonomy and relatedness and adolescents' borderline features (Frankel-Waldheter, Macfie, Strimpfel, & Watkins, 2015). Finally, maternal psychological and behavioral control (a lack of autonomy support) was associated with BPD symptoms in adolescence (Mahan, 2016). Thus, problems in parenting found in the current study in early childhood may continue into adolescence and make the development of BPD more likely.

In addition to problems with sensitivity, autonomy support, and hostility, we found more mother-child role reversal in dyads in which mothers have BPD than in comparisons. An individual with BPD is theorized to seek something or someone to soothe her distress, and to provide a feeling of secure attachment, a stable self, and well-regulated affect (Ryan, 2005), which may include his or her child (Conklin & Westen, 2005). Even though a child at high levels of role reversal may look mature, role reversal has serious implications for future development, including the development of BPD (Macfie, Brumariu, & Lyons-Ruth, 2015).

Specifically, how might these adverse parenting experiences influence a child's development, including the development of BPD? Different theories propose processes at different levels of analysis: for example, parental reinforcement or social learning in behavioral theories (O'Connor, Matias, Futh, Tantam, & Scott, 2013; Snyder & Patterson, 1986). Attachment theory pro-

poses processes at the level of representation: that children carry mental representations of self and other developed in early child-caregiver relationships to inform their understanding of themselves and their behavior in future relationships (Bowlby, 1969/1982; Bretherton & Munholland, 2008; Main et al., 1985).

There has been a study of representations in children of mothers with BPD (Macfie & Swan, 2009). Young children completed the beginnings of stories about challenging situations begun for them by an examiner using household props and family dolls (Bretherton, Oppenheim, Buchsbaum, Emde, & the MacArthur Narrative Group, 1990). The narrative representations of young children whose mothers have BPD contained more fear of abandonment, role reversal, negative mother-child and father-child relationship expectations, and shameful and incongruent self-representations than did narratives of normative comparisons (Macfie & Swan, 2009). Might these representations carry forward to adolescence and young adulthood, and interact with developmentally salient issues such as the formation of romantic relationships, identity, and behavioral and emotional self-regulation, to make the development of BPD more likely?

Longitudinal studies in community samples find that BPD symptoms transmit intergenerationally (Barnow et al., 2013; Reinelt et al., 2013; Stepp, Olino, Klein, Seeley, & Lewinsohn, 2013). Moreover, in a longitudinal study of a high-risk sample of mostly single mothers living in poverty, disorganized attachment at 12–18 months, maternal hostility and high levels of parent-child role reversal at 42 months, and self-representation disturbance at ages 8–12 years were all associated with BPD symptoms at age 28 (E. A. Carlson, Egeland, & Sroufe, 2009). Further, individuals with BPD report more role reversal in their own childhood than do comparisons (Barone, 2003; Lyons-Ruth, Melnick, Patrick, & Hobson, 2007; Zanarini et al., 1997); and role reversal also transmits intergenerationally (Macfie, McElwain, Houts, & Cox, 2005). However, although offspring studies are unable to disentangle genetics from parenting (Seifer & Dickstein, 2000), longitudinal study of offspring of women with BPD would be helpful in further understanding the role of parenting in the development of BPD.

Future research might also integrate studies of child and parent behavior and representations to identify links between them. In one such study, mothers' representations of their childhood attachment were assessed with the AAI, children's representations were assessed with narrative story-stem completions, and mothers' parenting was observed in mother-child interactions. Mothers' parenting significantly mediated the relationship between a maternal preoccupied/unresolved representation and children's narrative representations of fear of abandonment, a symptom of BPD (Macfie et al., 2014). However, this was a cross-sectional study, and the maternal representations assessed were those of childhood attachment, not of parenting. It would be important to assess maternal representations of parenting, for example, with the Parent Development Interview (PDI; Slade, Aber, Bresgi, Berger, & Kaplan, 2004). PDI transcripts could then be coded for parental mentalizing, on how well they are able to understand the child's behavior in terms of underlying mental states and intentions (Slade, Grienenberger, Bernbach,

Levy, & Locker, 2005). In this way, the relationship between mothers' representations, their parenting, and child representations would become clearer.

Such an understanding would then inform interventions for mothers with BPD in individual (Bateman & Fonagy, 2008; Crowell, Beauchaine, & Linehan, 2009; Fonagy & Luyten, 2009; Kellogg & Young, 2006; Levy et al., 2006; Linehan, 1993) and mother-child dyadic (Fraiberg, Adelson, & Shapiro, 1975; Lieberman, 2003) therapy. Individual therapy would help relieve mothers' BPD symptoms, social skills deficits, and underlying difficulties with mentalizing and maladaptive representational models. Dyadic therapy would help mothers process their own experience as children with the therapist's help and improve mentalization so they would be able to see the child through a clearer lens. Dyadic therapy would also help the child develop positive representations of the mother-child relationship, as was the case with maltreated children (Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002). Ideally, we would also design preventive interventions for soon-to-be mothers with BPD. In this way, we may be able to prevent both individual suffering related to BPD and its transmission to the next generation.

Strengths of the current study include using observational measures of parenting and the parent-child relationship rather than depending on maternal report. We also recruited a sample of mothers who had a full diagnosis of BPD rather than assessing symptoms only. Further, we assessed mothers' borderline features along a continuum, which provided more statistical power in the sample as a whole. Moreover, compared with early studies of offspring of women with BPD in the same developmental period (Crandell et al., 2003; Hobson et al., 2005), this was a relatively large sample. Finally, we recruited mothers with BPD from clinicians and directly from the community, so they represented a broader sample than only those seeking treatment.

Limitations include a low-SES and mostly Caucasian sample, which limits generalizability. Although we controlled for mood disorders (major depression, bipolar, dysthymia), there was no clinical comparison group, such as mothers with a personality disorder other than BPD, so it is not known how specific these findings are to BPD. The extension of the fearful/disoriented scale for parents of infants to young children in the current sample has not been validated for this age group, for example, by being predicted by disorganized attachment in infancy. Further, the data are cross-sectional, and no child outcomes are included. In future research, a follow-up of the children would illuminate how such problematic parenting may affect development over time.

BPD is challenging for individuals who suffer from the disorder, for their therapists, for their partners, and for their children. Because of the high risk of offspring of women with BPD developing the disorder themselves in adolescence or early adulthood, examination of processes of transmission is essential to inform preventive interventions. The current study assessed parenting, but there are many other factors, including genetics (Amad, Ramoz, Thomas, Jardri, & Gorwood, 2014), that may interact with parenting to make the development of BPD more likely, and that need to be examined. Treating individuals with BPD is very important, but even more important perhaps is to work to prevent BPD from being transmitted to a new genera-

tion. To accomplish this, it is essential to conduct randomized clinical trials for preventive interventions. We need to determine which intervention is appropriate for which developmental period: prenatal, infancy, early or later childhood. Moreover, interventions in turn provide an ideal test of causal pathways proposed in our theories (Cowan & Cowan, 2002), specifically theories concerning the etiology of BPD.

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