

Development in Children and Adolescents Whose Mothers Have Borderline Personality Disorder

Jenny Macfie

University of Tennessee

ABSTRACT—*A mother’s mental illness may have a profound effect on her child’s development, including an increased risk of the child developing the same disorder. From a developmental psychopathology perspective, offspring provide an opportunity to examine pathways to disorder versus resilience. Borderline personality disorder (BPD) is a severe disorder diagnosed in early adulthood involving stormy relationships, an unstable sense of identity, and self destructive behavior. Interestingly, the domains of dysfunction are conceptually similar to developmental tasks in early childhood reworked in adolescence: attachment, self development, and self-regulation. Early deviation may increase the risk for later disorder. There are 5 empirical studies of children whose mothers have BPD, 2 conducted from a developmental perspective. This article proposes a theoretical framework and an innovative methodology with which to extend this research and suggests an intervention to bring development back on track if necessary.*

KEYWORDS—*developmental psychopathology; borderline personality disorder; attachment; representations; infancy; toddler period; preschool period; adolescence*

This article was made possible by a grant from National Institute of Mental Health (MH077841) to the author.

Correspondence concerning this article should be addressed to Jenny Macfie, Department of Psychology, 301E Austin Peay, University of Tennessee, Knoxville, TN 37996-0900; e-mail: macfie@utk.edu.

© 2009, Copyright the Author(s)
Journal Compilation © 2009, Society for Research in Child Development

VIGNETTES

Girl age 5, whose mother has borderline personality disorder (BPD):

An examiner begins a story about a birthday party using family dolls, a table, and a cake, then asks the girl: “Show me and tell me what happens now.” The girl tells how the family open presents and eat cake. She then adds: *And then Mom takes off her clothes and gets drunk.*

Adolescent girl age 15, and her mother who has BPD:

Adolescent: Now you’re acting even younger. You’re giggly and weird.

Mother: Oh well, that’s just because I’m being rebellious at the moment. I want to try to have fun.

Adolescent: I’m the teenager that’s supposed to do that.

Mother: It has been so long since I’ve had fun and done the things that I want to do. Yeah, I miss being a teenager. It’d be nice if we could have that little bit of experience together and have fun.

Adolescent: No. You’re supposed to be my Mom.

Mother: Well, maybe someday I can be your Mom again.

Adolescent: By the time you’re my Mom, I’ll be an adult, so it won’t even matter.

As these vignettes illustrate, children and adolescents whose mothers have BPD may face considerable challenges. BPD is characterized by stormy relationships, an unstable sense of identity, and self-destructive behavior. Interestingly, although BPD is not diagnosed until early adulthood, it is notable for difficulties in areas conceptually similar to developmental tasks

in early childhood reworked in adolescence: attachment, self development, and self-regulation (Sroufe, Egeland, Carlson, & Collins, 2005). Moreover, children whose mothers have BPD are at risk of developing the disorder themselves. From a developmental psychopathology perspective, the study of development in these children aims to (a) identify deviations from normal development, (b) assess exposure to risk factors associated with BPD, and (c) design interventions, if needed.

I review the developmental psychopathology perspective, our understanding of BPD, the study of children of mothers with mental illness, and the five empirical studies of children of mothers with BPD. I then propose to extend this research and present a process by which early developmental failure may contribute to later BPD—representations of self, other, and the world. These representations may be assessed with an innovative measure of preschool-aged children's storytelling. I conclude with a review of a successful intervention with adults who have BPD—to increase understanding of the beliefs and feelings of oneself and others—that may also help their children.

Developmental Psychopathology

In the 1980s, developmental psychopathology researchers introduced a multidisciplinary perspective to better understand, prevent, and treat psychopathology (Cicchetti, 1984; Sroufe & Rutter, 1984). With this perspective, researchers combine methodology from developmental psychology with subject matter from clinical psychology. When we study developmental pathways in children at high risk of psychopathology, abnormal development sheds light on normal development, and normal development sheds light on abnormal development. Moreover, findings may confirm, extend, or challenge theories of development and inform early interventions to help prevent the development of psychopathology (Cicchetti, 1993).

Sroufe and Rutter (1984) drew from prior developmental theories to identify tasks thought to be necessary for social and emotional development. These tasks include a secure attachment with one or more parents in infancy, self development in strivings for autonomy in the toddler period (colloquially known as the “terrible twos” for this reason), and emotional and behavioral self-regulation in the preschool period. These developmental tasks are thought to be reworked in adolescence with intimate relationships, identity formation, and managing risky behavior, such as with sex and substance use (Sroufe et al., 2005). Success at each task is thought to make success at the next more likely, and failure is thought to make failure at the next more likely.

BPD

BPD is dreaded by many clinicians: Angry outbursts, suicidal behavior, and an intense need for care make a challenging combination (Gunderson, 2001). BPD is officially diagnosed in early adulthood (American Psychiatric Association, 1994) but may be diagnosed in adolescence (Ludolph et al., 1990). In the most recent, largest, and most nationally representative epidemi-

ological study, BPD is found to affect 5.9% of the population, and although equally prevalent among men and women, is associated with more severe physical and mental disability for women (Grant et al., 2008). Moreover, 70%–90% of people with BPD repeatedly make suicidal gestures, 8%–10% complete suicide, and daily functioning is as low for people with schizophrenia.

BPD is thought to develop from a combination of an emotionally vulnerable child and an emotionally unsupportive environment (Heard & Linehan, 1993). An emotionally vulnerable child may have temperamental traits associated with BPD, such as emotional reactivity and impulsivity (Posner et al., 2003). Indeed, there is a significant hereditary component to BPD (Torgersen, 2000). An emotionally unsupportive environment may include childhood maltreatment and separation from or loss of a parent. Retrospectively, adults with BPD report more childhood sexual abuse, physical abuse, neglect, and separation from or loss of a parent than do people with other disorders (Laporte & Guttman, 1996; Weaver & Clum, 1993; Zanarini, 2000). Prospectively, mothers' self-reported intrusiveness and inconsistency predict BPD in adolescents 2 years later (Bezirgianian, Cohen, & Brook, 1993).

BPD has been characterized as a disorder of domains conceptually similar to those in early childhood (Sroufe et al., 2005). First, BPD has been characterized as a disorder of attachment (Fonagy, Target, & Gergely, 2000). Frantic efforts to avoid feeling abandoned, and volatile relationships in which the other person is alternately idealized then devalued, suggest that people with BPD do not feel secure in their relationships. Second, BPD has been characterized as a disorder of self development (Westen & Cohen, 1993) involving an unstable sense of identity (e.g., shifting career goals), feelings of emptiness, and symptoms of dissociation (e.g., feeling as if one is an outside observer of one's mental processes or body). Third, BPD has been characterized as a disorder of self-regulation (Posner et al., 2003), with symptoms of impulsivity (e.g., with drugs or alcohol), self-injury (e.g., cutting), mood swings, inappropriate angry outbursts, and repeated suicidal behaviors. Mothers with BPD may therefore have difficulty helping their children succeed with these developmental tasks.

Study of Children of Mothers Who Have a Mental Disorder

Maternal mental illness puts children at high risk of developing the same disorder (Downey & Coyne, 1990; Mednick & McNeil, 1968). Initially, studies of offspring of mothers with schizophrenia and depression sought to uncover causes or etiology. However, etiology is a complex interaction of genetic predispositions and environmental factors, which studies of offspring are unable to disentangle. Instead, a more modest goal for studies of offspring is to examine differences in early development that *may* lead to later disorder (Seifer & Dickstein, 2000). Although not ideal, research on *parents* with mental illness almost always refers to *mothers* because mothers are more often the primary caregiver, especially in early development, and more likely to be the sole caregiver in single-parent households (Seifer & Dickstein, 2000).

High-risk groups for BPD include maltreated children (Rogosch & Cicchetti, 2005), children high in relevant personality traits, and children of mothers with BPD. Here, I focus on offspring. Not all or even most children of mothers with BPD will develop BPD themselves, although 11.5% of first-degree relatives of people with BPD also have BPD (Nigg & Goldsmith, 1994). However, exposure to risk factors associated with BPD and failure at tasks of attachment, self development, and self-regulation may increase the likelihood of developing BPD.

Research on Offspring of Mothers With BPD

There are five groundbreaking empirical studies of children whose mothers have BPD. Three of these assess children across a wide age span. First, children aged 4–18 whose mothers have BPD are more likely than are children of mothers with other personality disorders to experience changes in household composition and schools attended, removal from the home, and exposure to parent drug or alcohol abuse and mother's suicide attempts (Feldman et al., 1995). Second, these children are diagnosed with more attention and disruptive behavior disorders than are comparisons (Weiss et al., 1996). Third, children aged 11–18 whose mothers have BPD exhibit more problems with attention, delinquency, and aggression than do children whose mothers have no psychiatric disorders; they also have more anxiety, depression, and low self-esteem than do children of depressed mothers, children of mothers with other personality disorders, and children of mothers with no disorder (Barnow, Spitzer, Grabe, Kessler, & Freyberger, 2006).

Two studies of children whose mothers have BPD were conducted from a developmental perspective with children of the same age. First, when infants are 2 months, mothers with BPD demonstrate more intrusiveness and insensitivity, and their infants demonstrate more dazed looks, more looks away from mother, and less responsiveness than do infants of mothers without a disorder (Crandell, Patrick, & Hobson, 2003). Second, when these infants are 13 months, 80% are disorganized in their attachment with their mothers (Hobson, Patrick, Crandell, Garcia-Perez, & Lee, 2005), which is the same percentage found in maltreated children (Carlson, Cicchetti, Barnett, & Braunwald, 1989). Disorganized attachment is thought to stem from fear of the mother or seeing the mother herself to be afraid. When distressed following a brief separation from the mother, the infant seems caught between a desire to approach and a fear of doing so, for example, approaching with back toward the mother or standing still staring in a dazed state.

Proposed Research on Children and Adolescents Whose Mothers Have BPD

First, it is important to assess exposure to risk factors associated with BPD: temperamental traits (e.g., emotional reactivity and impulsivity), the experience of maltreatment, separation from or loss of a parent, and the quality of maternal caregiving (e.g., inconsistency and intrusiveness).

Second, it is important to assess success versus failure at developmental tasks beyond infancy. Previous developmental research in at-risk samples (e.g., Sroufe et al., 2005) suggests many constructs. I focus on one such construct: role reversal in the toddler period.

Infants whose mothers have BPD are more likely to be disorganized in their attachment to their mothers in infancy (Hobson et al., 2005). How might this affect their self development in the toddler period and self-regulation in the preschool period? In the toddler period, children normally develop the beginnings of autonomy. A mother with BPD, however, may look to her child to meet her own needs, for example, to feel loved. If a mother with BPD discourages autonomy and encourages her child to stay close, role reversal may develop. Role reversal is defined as a parent–child relationship in which the child takes in part the role of parent, spouse, or peer and may be assessed from filmed mother–child interactions. Disorganized attachment in infancy predicts role reversal in the toddler period (Macfie, Fitzpatrick, Rivas, & Cox, 2008) and at age 6 (Main, Kaplan, & Cassidy, 1985). Moreover, role reversal in the toddler period in turn predicts problems with emotional and behavioral self-regulation in the preschool period (Macfie, Houts, McElwain, & Cox, 2005) and is transmitted intergenerationally (Macfie, McElwain, Houts, & Cox, 2005).

Third, it is important to assess adolescent development when attachment, self development, and self-regulation are again key issues in terms of intimacy, identity, and flexible self-regulation (Sroufe et al., 2005). It is particularly important because BPD may first be diagnosed in adolescence and because normal adolescent behavior in the United States may be in some respects similar to BPD: mood swings; angry outbursts; impulsive risky behavior; intense, unstable relationships; and a variable sense of self. Why do some adolescents grow out of these symptoms and others do not? Again, there are many constructs to assess (Sroufe et al., 2005). Among those relevant to BPD are adolescents' early attachment relationships (George, Kaplan, & Main, 1984), autonomy and relatedness (Allen, Hauser, Borman, & Worrell, 1991), relational aggression (Crick & Grotpeter, 1995), rejection sensitivity, and self-regulation (Downey & Ayduk, 2002).

Possible Process Linking Early Adaptation to Future Disorder

Representations of self, other, and the world may be one process by which early experience is carried forward to later disorder. A representation, also termed an internal working model or a schema, is shorthand for a set of beliefs that are thought to guide future expectations and behavior in relationships. Representations come out of attachment theory, which in turn comes from ethology and psychoanalytic theories (Bowlby, 1969/1982, 1973, 1980).

Sensitive and responsive care leading to a secure attachment is thought to result in representations of others as trustworthy, the self as valuable, and the world as a safe place. Frightening or frightened care leading to a disorganized attachment is thought to

result in representations of others as dangerous or ineffective, the self as not worthy of care, and the world as a threatening place.

When adults with BPD describe their earliest memories, their representations of others are more malevolent, more injurious, and less helpful than are those of depressed and normal comparisons (Nigg, Lohr, Westen, Gold, & Silk, 1992). Volatile relationships, frantic efforts to avoid abandonment, impulsivity, suicidal behavior, and self-mutilation in BPD may develop in part out of these representations.

Children's stories are an innovative way to assess representations in the preschool period (Bretherton, Ridgeway, & Cassidy, 1990; Main et al., 1985; Solomon, George, & DeJong, 1995). An examiner uses family figures and household props to present the beginnings of stories about challenging family situations, which the child then completes (Bretherton, Oppenheim, Buchsbaum, Emde, & the MacArthur Narrative Group, 1990). The resulting stories are videotaped and coded for constructs of interest (Robinson, Mantz-Simmons, Macfie, & the MacArthur Narrative Group, 1996; Warren, Mantz-Simmons, & Emde, 1993).

The storytelling measure in the preschool period accurately reflects children's experiences. Representations distinguish between secure and insecure attachment (Bretherton, Ridgeway, et al., 1990) and between maltreated and nonmaltreated children (Macfie, Cicchetti, & Toth, 2001; Macfie et al., 1999; Toth, Cicchetti, Macfie, & Emde, 1997); they reflect parents' symptoms of depression (Oppenheim, Emde, & Warren, 1997) and children's symptoms of anxiety, depression, and aggression (Oppenheim, Nir, Warren, & Emde, 1997; Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000; Warren, Oppenheim, & Emde, 1996; Zahn-Waxler, Schmitz, Fulker, Robinson, & Emde, 1996); and perhaps most interesting, they partially mediate the relationship between maltreatment and behavior problems (Toth et al., 2000). Offspring of women with BPD may be at risk of developing BPD themselves in part through their representations. Representations of parents (especially mothers), children, empathy, and trauma are particularly relevant.

Implications for Intervention

A successful intervention for adults with BPD focuses on the ability to make sense of one's own and others' behavior in terms of mental states such as thoughts, beliefs, and feelings, which is termed mentalization or reflective functioning (Fonagy, Target, Steele, & Steele, 1998). People with BPD have difficulty with mentalization even compared to people with other disorders (Fonagy et al., 1996). This may lead to their reacting impulsively or angrily to what they fear is a threat but is not, thus damaging their relationships and themselves. Mentalization-based therapy is specifically designed to improve mentalization by focusing on the relationship between the therapist and the person with BPD and leads to a reduction in BPD symptoms and subjective distress at the end of the intervention and at long-term follow-ups (Bateman & Fonagy, 1999, 2001, 2008). Another successful intervention, transference-focused psycho-

therapy, focuses on the relationship between the therapist and the person with BPD, and also improves mentalization, although mentalization is not the specific focus of the intervention (Clarkin, Levy, Lenzenweger, & Kernberg, 2007; Levy et al., 2006). A third successful intervention, dialectical behavior therapy, focuses on improving coping skills (Linehan, 1993) including mindfulness—increased awareness of one's own behavior in terms of beliefs and feelings—which is a component of mentalization.

Improving mentalization may not only help a mother with BPD but also help her relationship with her child. Child-parent psychotherapy is an attachment-based intervention that includes a focus on improving mentalization (Lieberman, 1992). A mother and her young child (infant, toddler, or preschooler) meet with the therapist. The mother feels understood by the therapist and learns more about her own and her child's feelings, beliefs, and needs, so that the mother-child relationship becomes a greater source of security to the child. Indeed, child-parent psychotherapy leads to an increase in attachment security in depressed mother-toddler pairs (Cicchetti, Toth, & Rogosch, 1999) and an increase in positive, and a decrease in negative, representations in maltreated children's stories (Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002). Both a mother with BPD and her child may benefit, and development for both may return to a more adaptive pathway.

Challenges

First, people with BPD can be difficult to work with because of their illness; for example, they may be prone to angry outbursts. Second, because of relatively low prevalence and rate of fertility compared with mothers who have depression (although higher than for schizophrenia), recruitment of children in the same developmental period is more difficult. Third, a normal comparison group is necessary to assess deviations from normal development, but the choice of a clinical comparison group (people with a different disorder) may vary according to the question being asked. Because depression is the most common disorder found with BPD (Zanarini et al., 1998), children of depressed mothers may be appropriate. Last, but not least, the proposed research should not add to a tendency toward "mother bashing" noted in the offspring literature (Downey & Coyne, 1990). Rather, researchers need to examine the possible effects of maternal BPD in light of genetic predisposition, the effect of BPD on the context in which the child is growing up, and the mother's struggle with her symptoms.

CONCLUSIONS

It is unusual in the field of child development to find almost totally uncharted territory. That so little developmental research has been conducted with offspring of women with BPD presents both a challenge and an opportunity. We know that children whose mothers have BPD are likely to be disorganized in their attachment to their mothers at 13 months. What we do not know

is what their developmental adaptation looks like beyond infancy. A developmental psychopathology perspective makes it possible to study development in an at-risk sample and learn more about not only psychopathology but also about normal development, and how to intervene to bring development back on track, if necessary.

REFERENCES

- Allen, J. P., Hauser, S. T., Borman, E., & Worrell, C. M. (1991). *The autonomy and relatedness coding system: A scoring manual*. Unpublished manuscript, University of Virginia, Charlottesville.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Barnow, S., Spitzer, C., Grabe, H. J., Kessler, C., & Freyberger, H. J. (2006). Individual characteristics, familial experience, and psychopathology in children of mothers with borderline personality disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 45*, 965–972.
- Bateman, A., & Fonagy, P. (1999). Effectiveness of partial hospitalization in the treatment of borderline personality disorder: A randomized controlled trial. *American Journal of Psychiatry, 156*, 1563–1569.
- Bateman, A., & Fonagy, P. (2001). Treatment of borderline personality disorder with psychoanalytically oriented partial hospitalization: An 18-month follow-up. *American Journal of Psychiatry, 158*, 36–42.
- Bateman, A., & Fonagy, P. (2008). 8-year follow-up of patients treated for borderline personality disorder: Mentalization-based treatment versus treatment as usual. *American Journal of Psychiatry, 165*, 631–638.
- Bezirgianian, S., Cohen, P., & Brook, J. S. (1993). The impact of mother-child interaction on the development of borderline personality disorder. *American Journal of Psychiatry, 150*, 1836–1842.
- Bowlby, J. (1982). *Attachment and loss. Vol. I. Attachment*. New York: Basic Books. (Original work published 1969)
- Bowlby, J. (1973). *Attachment and loss. Vol. II. Separation*. New York: Basic Books.
- Bowlby, J. (1980). *Attachment and loss. Vol. III. Loss*. New York: Basic Books.
- Bretherton, I., Oppenheim, D., Buchsbaum, H., Emde, R. N., & the MacArthur Narrative Group. (1990). *MacArthur Story Stem Battery (MSSB)*. Unpublished manuscript.
- Bretherton, I., Ridgeway, D., & Cassidy, J. (1990). Assessing internal working models of the attachment relationship. In M. T. Greenberg, D. Cicchetti, & M. Cummings (Eds.), *Attachment in the preschool years* (pp. 273–308). Chicago: University of Chicago Press.
- Carlson, V., Cicchetti, D., Barnett, D., & Braunwald, K. (1989). Finding order in disorganization: Lessons from research on maltreated infants' attachments to their caregivers. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 494–528). New York: Cambridge University Press.
- Cicchetti, D. (1984). The emergence of developmental psychopathology. *Child Development, 55*, 1–7.
- Cicchetti, D. (1993). Developmental psychopathology: Reactions, reflections, projections. *Developmental Review, 13*, 471–502.
- Cicchetti, D., Toth, S. L., & Rogosch, F. (1999). The efficacy of toddler-parent psychotherapy to increase attachment security in offspring of depressed mothers. *Attachment and Human Development, 1*, 34–66.
- Clarkin, J. F., Levy, K. N., Lenzenweger, M. F., & Kernberg, O. (2007). Evaluating three treatments for borderline personality disorder: A multiwave study. *American Journal of Psychiatry, 164*, 922–928.
- Crandell, L. E., Patrick, M. P. H., & Hobson, R. P. (2003). “Still-face” interactions between mothers with borderline personality disorder and their 2-month-old infants. *British Journal of Psychiatry, 183*, 239–247.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social psychological adjustment. *Child Development, 66*, 710–722.
- Downey, G., & Ayduk, O. (2002, June). *A social-cognitive perspective on borderline features: Implications of rejection sensitivity and self-regulatory difficulties for personal and interpersonal difficulties*. Paper presented at the New Directions in Borderline Personality II, Minneapolis, MN.
- Downey, G., & Coyne, J. C. (1990). Children of depressed parents: An intergenerative review. *Psychological Bulletin, 108*, 50–76.
- Feldman, R. B., Zelkowitz, P., Weiss, M., Vogel, J., Heyman, M., & Paris, J. (1995). A comparison of the families of mothers with borderline and nonborderline personality disorders. *Comprehensive Psychiatry, 36*, 157–163.
- Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., & Mattoon, G. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of Consulting and Clinical Psychology, 64*, 22–31.
- Fonagy, P., Target, M., & Gergely, G. (2000). Attachment and borderline personality disorder. *Psychiatric Clinics of North America, 23*, 103–122.
- Fonagy, P., Target, M., Steele, H., & Steele, M. (Eds.). (1998). *Reflective functioning manual* (Version 5). London: University College.
- George, C., Kaplan, N., & Main, M. (1984). *The Attachment Interview for Adults*. Unpublished manuscript, University of California, Berkeley.
- Grant, B. F., Chou, S. P., Goldstein, R. G., Huang, B., Stinson, F. S., Saha, T. D., et al. (2008). Prevalence, correlates, disability, and comorbidity of DSM-IV borderline personality disorder: Results from the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry, 69*, 533–545.
- Gunderson, J. G. (2001). *Borderline personality disorder: A clinical guide*. Washington, DC: American Psychiatric Publishing.
- Heard, H. L., & Linehan, M. M. (1993). Problems of self and borderline personality disorder: A dialectical behavioral analysis. In Z. V. Segal & S. J. Blatt (Eds.), *The self in emotional distress: Cognitive and psychodynamic perspectives* (pp. 301–333). New York: Guilford.
- Hobson, R. P., Patrick, M., Crandell, L., Garcia-Perez, R., & Lee, A. (2005). Personal relatedness and attachment in infants of mothers with borderline personality disorder. *Development and Psychopathology, 17*, 329–347.
- Laporte, L., & Guttman, H. (1996). Traumatic childhood experiences as risk factors for borderline and other personality disorders. *Journal of Personality Disorders, 10*, 247–259.
- Levy, K. N., Meehan, K. B., Kelly, K. M., Reynoso, J. S., Weber, M., Clarkin, J. F., et al. (2006). Change in attachment patterns and reflective functioning in a randomized control trial of transference-focused psychotherapy for borderline personality disorder. *Journal of Consulting and Clinical Psychology, 74*, 1027–1040.

- Lieberman, A. F. (1992). Infant-parent psychotherapy with toddlers. *Development and Psychopathology, 4*, 559–574.
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford.
- Ludolph, P. S., Westen, D., Misle, B., Jackson, A., Wixom, J., & Wiss, F. C. (1990). The borderline diagnosis in adolescents: Symptoms and developmental history. *American Journal of Psychiatry, 147*, 470–476.
- Macfie, J., Cicchetti, D., & Toth, S. L. (2001). The development of dissociation in maltreated preschool-aged children. *Development and Psychopathology, 13*, 233–253.
- Macfie, J., Fitzpatrick, K. L., Rivas, E. M., & Cox, M. J. (2008). Independent influences on mother-toddler role reversal: Infant-mother attachment disorganization and role reversal in mother's childhood. *Attachment and Human Development, 10*, 29–39.
- Macfie, J., Houts, R. M., McElwain, N. L., & Cox, M. J. (2005). The effect of father-toddler and mother-toddler role reversal on the development of behavior problems in kindergarten. *Social Development, 14*, 514–531.
- Macfie, J., McElwain, N. L., Houts, R. M., & Cox, M. J. (2005). Intergenerational transmission of role reversal between parent and child: Dyadic and family systems internal working models. *Attachment and Human Development, 7*, 51–65.
- Macfie, J., Toth, S. L., Rogosch, F. A., Robinson, J., Emde, R. N., & Cicchetti, D. (1999). Effect of maltreatment on preschoolers' narrative representations of responses to relieve distress and of role reversal. *Developmental Psychology, 35*, 460–465.
- Main, M., Kaplan, N., & Cassidy, J. C. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Monographs of the Society for Research in Child Development, 50*(1–2, Serial No. 209), 66–104.
- Mednick, S. A., & McNeil, T. F. (1968). Current methodology in research on the etiology of schizophrenia: Serious difficulties which suggest the use of the high-risk-group method. *Psychological Bulletin, 70*, 681–693.
- Nigg, J. T., & Goldsmith, H. H. (1994). Genetics of personality disorders: Perspectives from personality and psychopathology research. *Psychological Bulletin, 115*, 346–380.
- Nigg, J. T., Lohr, N. E., Westen, D., Gold, L. J., & Silk, K. R. (1992). Malevolent object representations in borderline personality disorder and major depression. *Journal of Abnormal Psychology, 101*, 61–67.
- Oppenheim, D., Emde, R. N., & Warren, S. L. (1997). Children's narrative representations of mothers: Their development and associations with child and mother adaptation. *Child Development, 68*, 127–138.
- Oppenheim, D., Nir, A., Warren, S. L., & Emde, R. N. (1997). Emotion regulation in mother-child narrative co-construction: Associations with children's narratives and adaptation. *Developmental Psychology, 33*, 284–294.
- Posner, M. I., Rothbart, M. K., Vizueta, N., Thomas, K. M., Levy, K. N., Fossella, J., et al. (2003). An approach to the psychobiology of personality disorders. *Development and Psychopathology, 15*, 1093–1106.
- Robinson, J., Mantz-Simmons, L., Macfie, J., & the MacArthur Narrative Group. (1996). *The narrative coding manual, Rochester version*. Unpublished manuscript.
- Rogosch, F. A., & Cicchetti, D. (2005). Child maltreatment, attention networks, and potential precursors to borderline personality disorder. *Development and Psychopathology, 17*, 1071–1089.
- Seifer, R., & Dickstein, S. (2000). Parental mental illness and infant development. In C. H. Zeanah (Ed.), *Handbook of infant mental health* (pp. 145–160). New York: Guilford.
- Solomon, J., George, C., & DeJong, A. (1995). Children classified as controlling at age six: Evidence of disorganized strategies and aggression at home and at school. *Development and Psychopathology, 7*, 447–463.
- Sroufe, L. A., Egeland, B., Carlson, E. A., & Collins, W. A. (2005). *The development of the person: The Minnesota Study of Risk and Adaptation From Birth to Adulthood*. New York: Guilford.
- Sroufe, L. A., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development, 55*, 17–29.
- Torgersen, S. (2000). Genetics of patients with borderline personality disorder. *Psychiatric Clinics of North America, 23*, 1–9.
- Toth, S. L., Cicchetti, D., Macfie, J., & Emde, R. N. (1997). Representations of self and other in the narratives of neglected, physically abused, and sexually abused preschoolers. *Development and Psychopathology, 9*, 781–796.
- Toth, S. L., Cicchetti, D., Macfie, J., Rogosch, F. A., & Maughan, A. (2000). Narrative representations of moral affiliative and conflictual themes and behavioral problems in maltreated preschoolers. *Journal of Clinical Child Psychology, 29*, 307–318.
- Toth, S. L., Maughan, A., Manly, J. T., Spagnola, M., & Cicchetti, D. (2002). The relative efficacy of two interventions in altering maltreated preschool children's representational models: Implications for attachment. *Development and Psychopathology, 14*, 877–908.
- Warren, S. L., Mantz-Simmons, L., & Emde, R. N. (1993). *Narrative emotion coding*. Unpublished manuscript.
- Warren, S. L., Oppenheim, D., & Emde, R. N. (1996). Can emotions and themes in children's play predict behavior problems? *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 1331–1337.
- Weaver, T. L., & Clum, G. A. (1993). Early family environments and traumatic experiences associated with borderline personality disorder. *Journal of Consulting and Clinical Psychology, 61*, 1068–1075.
- Weiss, M., Zelkowitz, P., Feldman, R. B., Vogel, J., Heyman, M., & Paris, J. (1996). Psychopathology in offspring of mothers with borderline personality disorder. *Canadian Journal of Psychiatry, 41*, 285–290.
- Westen, D., & Cohen, R. P. (1993). The self in borderline personality disorder: A psychodynamic perspective. In Z. V. Segal & S. J. Blatt (Eds.), *The self in emotional distress: Cognitive and psychodynamic perspectives* (pp. 334–368). New York: Guilford.
- Zahn-Waxler, C., Schmitz, S., Fulker, D., Robinson, J., & Emde, R. N. (1996). Behavior problems in 5-year-old monozygotic and dizygotic twins: Genetic and environmental influences, patterns of regulation, and internalization of control. *Development and Psychopathology, 8*, 103–122.
- Zanarini, M. C. (2000). Childhood experiences associated with the development of borderline personality disorder. *Psychiatric Clinics of North America, 23*, 89–101.
- Zanarini, M. C., Frankenburg, F. R., Dubo, E. D., Sickel, A. E., Trikha, A., Levin, A., et al. (1998). Axis I comorbidity of borderline personality disorder. *American Journal of Psychiatry, 155*, 1733–1739.