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Discrepancies in Perceptions of Maternal Aggression: Implications for Children of Methadone-Maintained Mothers

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Abstract

Despite a long history of documenting discrepancies in parent and child reports of parental care and child psychopathology, it has only been in recent years that researchers have begun to consider these discrepancies as meaningful indicators of parent–child relationship quality and as predictors of long-term child adjustment. Discrepancies in perceptions of parenting may be particularly important for the children of mothers with a history of substance abuse who may be less aware of the impact of their behavior on their child and of their child's internalizing symptoms. This study examined associations between (a) mother–child discrepancies in reports of maternal aggression, and (b) mother and child reports of child internalizing and externalizing symptoms. Data collected from 99 mother–child dyads (with children 4–16 years of age) during the baseline phase of a randomized clinical trial testing a parenting intervention were used in this study. Measures included parent and child versions of the Parental Acceptance–Rejection Questionnaire and the Behavioral Assessment Scale for Children. Findings indicated that as children viewed their mothers as increasingly more aggressive than mothers viewed themselves, children reported more internalizing and externalizing symptoms but mothers only reported more child externalizing symptoms. Mother–child discrepancies in reports of parenting behavior have potentially meaningful implications for child emotional and behavioral problems.

Keywords

mothers; children; adolescents; Connecticut; interrater discrepancies; substance abuse; emotional disturbance; depression; aggression; parent–child relations; parent groups

Parents and children often show low levels of agreement in their assessment of family environment and relationship quality (Aquilino, 1999; Feldman, Wentzel, & Gehring, 1989; Noller & Callan, 1988; Rohner et al., 2005; Schwarz, Barton-Henry, & Pruzinsky, 1985; Tein, Roosa, & Michaels, 1994). Findings from previous studies examining discrepancies in parent and child reports of parental behavior have suggested that discrepancies in parent and child ratings may have important implications for children's psychosocial adjustment (Tein et al., 1994). Tein et al. (1994), for example, found that, as children's and mothers' views of maternal rejecting behavior became increasingly discrepant, children were more likely to

report clinically significant symptoms of depression. In another investigation involving low-risk Caucasian families, Pelton and Forehand (2001) examined mother–child discrepancies in perceptions of relationship quality. They found that the greater the magnitude of discrepancy, the higher the mothers' reports of children's anxiety and externalizing symptoms. In a third study of African American mothers in inner-city New Orleans and their children, Pelton, Steele, Chance, Forehand, and the Family Health Project Research Group (2001) found that greater discrepancies in perceptions of the mother–child relationship were associated with higher levels of mother and child reports of children's externalizing behavior and child reports of depressive symptoms. Together, these findings suggest that discrepancies in mothers' and children's perceptions of the parenting relationship correspond to risk in children's emotional and behavioral adjustment. However, none of the studies examined whether the direction of discrepancies mattered for child outcomes.

Discrepancies where children report more parenting behavior problems than their parents report may indicate that their parents do not recognize critical problems in the parent–child relationship, at least as perceived by the child. This absence in parental recognition may place children at greater risk for both internalizing and externalizing forms of psychopathology. Internalizing symptoms involve internal, subjective states and perceptions and, as such, are more difficult for others to identify (e.g., sadness, loneliness, worry, fear), whereas externalizing symptoms are ones that are manifested behaviorally and are easier to perceive (e.g., swearing, defying adults). In addition, this absence of parental recognition of aggressive behavior may also extend to differences in perceptions of children's psychopathology. Understanding the impact of one's behavior on another person requires the ability to imagine what the other person is feeling, and to understand at a basic level that mental states motivate behavior, a skill that has been termed reflective function (Fonagy, Gergely, Jurist, & Target, 2001). In this case, in order for a mother to accurately understand the impact of her behavior on her child, she must be able to put herself in her child's mind and imagine how her own behavior influences her child's thoughts and feelings (Fonagy et al., 2001).

It is likely that parents who cannot reflect about the impact of their own behavior on their child would find reflecting on their child's internalizing symptoms more challenging, and instead may perceive the manifestations of any disturbances within their child as indications of behavior problems (externalizing symptoms) as opposed to internalizing distress. For example, in one study with methadone-maintained mothers, Suchman and Luthar (2000) found that mothers who had difficulty in setting appropriate limits with their children were more likely to view their children as behaving poorly. In another study, Suchman, Rounsaville, DeCoste, and Luthar (2007) found that methadone-maintained mothers who used control (vs. empathy) to parent their children were more likely to view their children as difficult to rear. Based on these conceptions and findings, we believe it is likely that mothers who do not recognize or acknowledge the negative impact of their aggressive behavior on their child may also be less likely to be aware of their child's vulnerable feelings like anxiety and depressive symptoms, and instead may view their children as having more behavior problems.

History of Substance Abuse, Parental Aggression, and Child Psychosocial Adjustment

Theoretically speaking, mothers with a history of substance abuse are at increased risk for poor parenting practices. Substance abuse may evolve as a self-medicating strategy used to protect against distress when other, more adaptive, emotion regulatory skills are lacking (Khantzian, 1985, 1999). Emotion regulation difficulties, in turn, are thought to be related to insecure attachment histories (Cassidy, 1994), which are related to increased risk for

parenting insensitivity (De Wolff & van IJzendoorn, 1997). In fact, adults with substance abuse histories are more likely to be insecure in their attachment (Allen, Hauser, & Borman-Spurrel, 1996; Borelli, Goshin, Joestl, Clark, & Byrne, in press; Caspers, Yucuis, Troutman, & Spinks, 2006; Fonagy et al., 1996; Riggs & Jacobvitz, 2002; Rosenstein & Horowitz, 1996; Schindler et al., 2005). The notion advanced herein is that parent-child discrepancies in perceptions of parenting behavior may be detrimental in two ways: First, they may contribute to parenting insensitivity (a parent may continue engaging in a certain behavior in part because he or she does not perceive it as detrimental); second, the discrepancies themselves may be distressing for the child.

Adults with substance abuse disorders are at particular risk for engaging in parenting practices that are impaired or inadequate and that often lead to deleterious developmental consequences for their children (Bauman & Dougherty, 1983; Beckwith, Howard, Espinosa, & Tyler, 1999; Burns, 1986; Mayes, 1995; Mayes, Bornstein, Chawarska, & Granger, 1996; Mayes & Truman, 2002; Wellisch & Steinberg, 1980). Parents with substance abuse disorders are more likely to exhibit verbal and physical aggression toward their children and score higher on measures of potential for child abuse than parents without substance abuse histories (Ammerman, Kolko, Kirisci, Blackson, & Dawes, 1999; Chaffin, Kelleher, & Hollenberg, 1996; Kelleher, Chaffin, Hollenberg, & Fischer, 1994). Although evidence suggests heterogeneity in parenting in substance-abusing parents (Suchman & Luthar, 2001), as a group, parents who abuse substances are at higher risk than non-substance-abusing parents for poor parenting, and their children for negative psychosocial outcomes (Knight, Bartholomew, & Simpson, 2007; Mayes & Truman, 2002).

In addition to the substance abuse itself, children of substance abusers are more likely to be exposed to other forms of social upheaval and turmoil (Grella & Greenwell, 2006; Locke & Newcomb, 2003). Parents with substance abuse disorders may also be less able than parents without substance use disorders to gauge the impact of their behavior on their children or accurately perceive their child's distress. Ethnographers who have studied women drug users have often described how women can become so preoccupied with procuring drugs that delegating parenting responsibilities to family members and other associates becomes necessary (Maher, 2000; Murphy & Rosenbaum, 1999; Rosenbaum, 1981; Sterk, 1999; Taylor, 1993). Even though a primary motivation among women with substance abuse disorders entering treatment is to manage damaging effects of drug use on their children, fears about the legal consequences of their drug use often prevent them from directly acknowledging their children's emotional and behavioral problems (National Center on Addiction and Substance Abuse, 2006).

Children of substance-abusing parents are also at higher risk for internalizing and externalizing disorders than children of parents without histories of substance use (for a review, see Suchman & DeCoste, in press). However, no studies to our knowledge have examined whether the presence or direction of discrepancies between addicted mothers' views and their children's views of parental aggression might be associated with greater risk for children's emotional and behavioral problems.

The Significance of Differing Views of Child Symptoms

Although the examination of differences in parent-child perceptions of child symptoms has a long history, recently investigators have moved beyond viewing these discrepancies as a methodological inconvenience and have begun to conceptualize the discrepancies themselves as indicative of a particular dynamic within the parent-child relationship (e.g., Chi & Hinshaw, 2002; De Los Reyes & Kazdin, 2006; Ferdinand, van der Ende, & Verhulst, 2004, 2007; Grills & Ollendick, 2003). Dyads with greater discrepancies in reports of child

externalizing symptoms are characterized by higher parent–child conflict (De Los Reyes & Kazdin, 2006; Grills & Ollendick, 2003), lower maternal competence and warmth (Chi & Hinshaw, 2002), and dismissing attachment (Berger, Jodl, Allen, McElhaney, & Kuperminc, 2005). Discrepancies in parent–child ratings of child symptoms may also be prognostic of poorer child outcomes—in parent–child dyads with discrepancies in ratings of child symptoms, the children are at greater risk for continuing distress and behavior problems (Ferdinand et al., 2004, 2007; Kendall, Panichelli Mindel, Sugarman, & Callahan, 1997).

Consistent with the theorizing of Tein et al. (1994), discrepancies of any kind (i.e., parent reports more distress than child or child reports more distress than parent) may be the cause for concern. However, with respect to internalizing symptoms, the case in which children report higher levels of depressive and anxiety symptoms when compared to parents' report may be more likely to be related to deleterious outcomes. Ferdinand et al. (2004) have suggested that dyads in which child- but not parent-report indicates internalizing problems, it may be the case that “the child is not being supported adequately by his or her parents, which may be associated with a poor prognosis” (p. 200). In support of this, Ferdinand et al. found that adolescents reporting more internalizing symptoms relative to their parents' report were more likely to report having a behavioral or emotional problem 4 years later.

Current Investigation

The primary aim of this study is to examine whether the direction of discrepancies in perceptions of maternal aggression between methadone-maintained mothers and their children is associated with the magnitude of children's internalizing and externalizing symptoms. Specifically, we hypothesize (a) that children who view their mothers as more aggressive than the mothers view themselves will be at greater risk for internalizing and externalizing symptoms. Conditional on confirmation of this first hypothesis, a second aim of this study was to examine whether greater risk for children's internalizing and externalizing symptoms associated with discrepancies would be reported by children's mothers as well. Thus, we hypothesize (b) that discrepancies in perceptions of maternal aggression will be associated with mothers' reports of higher levels of child internalizing and externalizing problems.

Method

Overview of Procedures

Data used in this study were collected during baseline assessments of methadone-maintained mothers enrolled in a randomized clinical trial testing the efficacy of a new parenting intervention called the Relational Mothers' Parenting Group (RPMG; for a full report on the randomized clinical trial study, see Luthar, Suchman, & Altomare, 2007). Opiate-addicted mothers interested in participating in parenting groups were recruited at three methadone clinics in New Haven, Connecticut. Recruitment occurred via referrals by counselors, visits made by research assistants to counseling groups and medication lines, and referrals from mothers who had already participated in the study. To be eligible for inclusion, mothers had to (a) have at least one child less than 16 years of age in their care, and (b) report problems with parenting. Exclusion criteria included conditions that would impede the ability to benefit from group therapy such as cognitive deficits, psychotic thought processes, suicidality, and homicidality.

All eligible mothers who expressed interest in the study met with a research assistant who explained the nature of the study as a randomized trial and completed consent procedures with mothers. A subset of mothers caring for children aged 8–16 were also invited to complete assent procedures allowing one child within this age range to participate in

assessments. Initial assessments were scheduled with mothers and children who consented to participate. After mothers and children completed the baseline assessment, mothers were scheduled for a second meeting during which they were randomized to either RPMG or to Recovery Training (RT), a comparison condition (for more details on RPMG and RT, see Luthar et al., 2007).

Sample

A total of 182 mothers who expressed interest in the study were screened and found eligible for the study and completed baseline assessments. Of these 182 mothers, 144 had a biological child between the ages of 8 and 16 in their custody. Of the 144 eligible children, 99 (68%) completed the baseline assessment; the remaining eligible children did not participate because either the mother or child declined. Data from this sample of 99 mother-child dyads were used in this study. Sociodemographic characteristics of the sample are presented in Table 1. Mothers in the sample were, on average, 36.26 years old, unemployed, had completed high school, and were caring for 1.45 children. Fifty-five percent of the mothers were Caucasian. The average age of focal children was 9.59 and approximately half were male.

Measures

Reports of maternal aggression—The Aggression-Hostility Scale from the Parental Acceptance-Rejection Questionnaire (PARQ; Rohner, 1991) was used to rate mothers' and children's perceptions of maternal aggression. The PARQ is a 60-item self-report measure rated on a 4-point scale that has parallel versions that can be completed by parents and their children. The Aggression-Hostility Scale is a 15-item scale that assesses maternal aggressive and hostile behavior toward the child (e.g., "I go out of my way to hurt my child's feelings," "I yell at my child when I am angry," "I hit my child even when he or she may not deserve it" from the mother report; "My mother goes out of her way to hurt my feelings," "My mother yells at me when she is angry," "My mother hits me, even when I do not deserve it" from the child report). Higher scores on the scale indicate higher levels of parental aggression and hostility. Adequate psychometric properties have been documented for the PARQ (Khaleque & Rohner, 2002; Rohner, 1991; Rohner et al., 2005). The Aggression-Hostility Scale yielded alpha coefficients of .73 (mother report) and .77 (child report) for this sample.

Child internalizing and externalizing symptoms—Children's internalizing and externalizing levels were assessed with the Behavioral Assessment System for Children (BASC; Reynolds & Kamphaus, 1992), with the Parent Rating Scale (PRS) administered to the mothers and the Self-Report Scale (SRP) to their children. Separate PRS forms are available for different age groups of children: the Preschool (ages 4–5), Child (ages 6–11) and Adolescent (ages 12–18) versions, with 131, 138, and 126 items, respectively, all rated on 4-point scales. The SRP Child (ages 6–11) and Adolescent (ages 12–18) forms have 152 and 186 items, respectively, each rated on a 2-point (true-false) scale. Children's internalizing symptoms were measured using the Depression (e.g., "Is sad" from PRS,) and Anxiety (e.g., "Worries about what parents think" from PRS,) subscales from the PRS and the SRP, respectively. Mothers' reports of children's externalizing were measured using the Aggression (e.g., "Is cruel to animals"), Hyperactivity (e.g., "Is restless when traveling in a car"), and Inattention (e.g., "Has a short attention span") subscales from the PRS.

Because the SRP Child Form does not include identical scales for externalizing symptoms as the PRS, children's self-reports of externalizing symptoms were measured using the School Maladjustment composite score from the SRP (e.g., "When I get a bad grade, it's usually because the teacher doesn't like me"; "Teachers mostly look for the bad things that you do";

“It’s hard for me to keep my mind on schoolwork”). Excellent psychometric properties for the BASC have been documented (Merrell, Blade, Lund, & Kempf, 2003; Reynolds & Kamphaus, 1992). BASC scales are highly correlated with the Child Behavior Checklist 4–18 (Achenbach, 1991), with r s from .49 to .70 for the scales used in this study (Doyle, Ostrander, Skare, Crosby, & August, 1997). In this sample, Cronbach’s alphas ranged from .70 to .90 with a median of .83.

Maternal depression—Maternal depression was assessed using the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996), a widely used 21-item questionnaire rated on a 4-point scale. The BDI yields a total score between 0 and 63 with scores between 20 and 28 indicating moderate levels and between 29 and 63 indicating severe levels of depression (Beck et al., 1996). In this sample, Cronbach’s alpha was .93.

Maternal drug use—Urine toxicology screens indicating the presence versus absence of opiates and cocaine were conducted for all mothers at their methadone clinic and obtained, with the mothers’ written permission, by the researchers to examine the use of illicit opiates, opoids, crack, and cocaine, beginning with the month prior to the baseline assessments. If a mother had at least one positive tox screen for any drug during the month prior to baseline, she received a score of 1. If all tox screens for the prior month were negative, she received a score of 0 for the month.

Data Analysis

Discrepancy scores—Following the procedure of previous studies examining discrepancies in collateral reports (see Berger et al., 2005; Ferdinand et al., 2004, 2007; Pelton & Forehand, 2001), discrepancy scores were calculated first by using a z -score transformation to standardize mother and child reports and then by subtracting child-rating z scores from mother-rating z scores. Negative discrepancy scores indicated that the child rated the mother’s aggression higher than the mother rated her own aggression and positive discrepancy scores indicated that the mother rated her own aggression higher than the child rated her aggression.

Potential covariates—Given known associations between child demographic factors and child internalizing and externalizing symptoms, children’s gender and age were statistically controlled for in all analyses. Because maternal depression can influence mothers’ perceptions of their parenting and their children’s symptoms (Briggs-Gowan, Carter, & Schwab-Stone, 1996; Chi & Hinshaw, 2002; Chilcoat & Breslau, 1997; De Los Reyes & Kazdin, 2005; Richters, 1992), we included maternal depressive symptoms as a covariate in subsequent analyses.

In addition, because we were interested in evaluating if discrepancies in reports of maternal aggression-hostility were related to child symptoms over and above the general risk of maternal aggression, we included maternal reports of aggression-hostility as covariates in regression equations. Finally, because we were interested in the association of current substance use and parent ethnicity with parenting and child internalizing symptoms, we initially included maternal drug toxicology screen results and ethnicity as covariates in analyses. However, the inclusion of these variables did not affect the results of any of the models; therefore, regression models are presented in this study without maternal drug toxicology or ethnicity included.

Hierarchical linear regression analyses—All research hypotheses were tested by conducting hierarchical multiple regression analyses while controlling for child age, child gender, and maternal depressive symptoms in the first step of the equation. To control for

variation in maternal levels of aggression, maternal self-reports in z-score format of aggression were entered in the second step of the equation. Discrepancy scores representing the difference between children's and mothers' standardized reports of maternal aggression were entered in the third and final step. Separate hierarchical regression analyses were conducted to examine associations between mother-child reporting discrepancies and (a) children's self-reports of depression and anxiety, (b) mothers' reports of their children's depression and anxiety, (c) children's reports of school maladjustment, and (d) mothers' reports of children's aggression, hyperactivity, and inattention.

Results

Descriptive Data

Table 2 reports means and standard deviations for all study variables. On average, scores for parenting and psychiatric symptoms fell within the normal limits. The results of urine toxicology screens conducted at baseline indicated that 16.7% of the sample had opiate-positive screens, 25.6% had cocaine-positive screens, 6.7% had benzodiazepine-positive screens, and 10% had alcohol-positive screens. In sum, 37.8% of the sample tested positive for at least one substance during the course of the treatment program.

Hypothesis 1: Child-reported internalizing and externalizing symptoms—Our first hypothesis that children who perceive their mothers as more aggressive than the mothers view themselves will have greater child-reported psychiatric symptoms was confirmed.

Results of all hierarchical regression analyses are reported in Table 3. The first regression revealed that after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .06$, $p = .11$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .00$, $p = .83$, discrepancies in mothers' and children's ratings of maternal aggression were significant predictors of child-reported depressive symptoms, $\Delta R^2 = .25$, $p < .0001$. After controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .08$, $p < .05$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .00$, $p = .64$, discrepancies in mothers' and children's ratings of maternal aggression were significant predictors of child-reported anxiety symptoms, $\Delta R^2 = .15$, $p < .0001$. Beta weights indicated that as child reports of maternal aggression became increasingly higher than mothers' self-reports of aggression, children's depressive and anxiety symptoms increased. In addition, as maternal reports of aggression increased, so did child reports of child depression, and as maternal reports of depression increased, so did child-reported anxiety.

In terms of child-reported externalizing symptoms, after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .07$, $p = .07$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .00$, $p = .64$, discrepancies in mothers' and children's ratings of maternal aggression were significant predictors of child-reported school maladjustment, $\Delta R^2 = .06$, $p < .05$. Beta weights indicated that, as children's reports of maternal aggression became increasingly higher than mothers' self-reports of aggression, children's self-reports of externalizing symptoms increased. Boys were more likely to report higher levels of school maladjustment.

Hypothesis 2: Mother-reported child internalizing and externalizing symptoms—Our second hypothesis that discrepancies in reports of maternal aggression will be related to mother reports of child symptoms was partially supported.

In terms of mother-reported child internalizing symptoms, after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .04$, $p = .27$, and mothers'

self-reports of aggression in the second step, $\Delta R^2 = .02$, $p = .21$, discrepancies in mothers' and children's ratings of maternal aggression were not significant predictors of mother-reported child depressive symptoms, $\Delta R^2 = .00$, $p = .82$. Similarly, after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .01$, $p = .91$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .00$, $p = .96$, discrepancies in mothers' and children's ratings of maternal aggression were not significant predictors of mother-reported child anxiety symptoms, $\Delta R^2 = .01$, $p = .26$.

In terms of maternal reports of child externalizing symptoms, after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .04$, $p = .30$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .05$, $p < .05$, discrepancies in mothers' and children's ratings of maternal aggression were significant predictors of mother-reported child aggression, $\Delta R^2 = .03$, $p < .05$. After controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .06$, $p = .12$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .05$, $p < .05$, discrepancies in mothers' and children's ratings of maternal aggression were not significant predictors of mother-reported child hyperactivity, $\Delta R^2 = .08$, $p = .10$. Finally, after controlling for child age, gender, and maternal depressive symptoms in the first step, $R^2 = .09$, $p < .05$, and mothers' self-reports of aggression in the second step, $\Delta R^2 = .04$, $p < .05$, discrepancies in mothers' and children's ratings of maternal aggression were significant predictors of mother-reported child aggression, $\Delta R^2 = .04$, $p < .05$. Beta weights indicated that, as children's reports of maternal aggression became increasingly higher than mothers' self-reports of aggression, mothers' reports of children's symptoms increased significantly. In addition, as mother reports of aggression increased, so did mother-reported child aggression, hyperactivity, and inattention.

Discussion

This study found that the greater the discrepancy between a child and the child's mother in their reports of the mother's aggression, the greater the child's self-reported internalizing (e.g., depression and anxiety) and externalizing (e.g., behavioral difficulties at school) symptoms. Assuming that children are more accurate reporters (and have fewer incentives to underreport maladaptive parenting) than their mothers, these findings suggest that they are more likely to have internalizing symptoms when their mothers underreport abusive behavior. This finding is partially supported by findings from previous studies that parental aggression in substance-abusing parents is associated with internalizing and externalizing symptoms in children (for a review, see Suchman and DeCoste, in press). Although this study cannot address this question, the query to be pursued in future research is whether *discrepancy in views itself*—that children view their mother's parenting as more harmful than mothers view their own parenting—causes children's internalizing problems. Although this effect has seldom been examined in previous addiction studies, it is conceivable that when a child's parent is unable to see the magnitude or impact of his or her own problematic parenting behavior on the child, that parent's capacity to support the child's development and protect the child from harm diminishes and the child subsequently suffers greater risk for emotional and behavioral problems. In other words, although it is already known that parental aggression confers risk to the children's well-being, which is confirmed in this study by the association between higher maternal-reported aggression and greater child-reported depressive symptoms, when that aggression is acknowledged more strongly by the child than by the parent, the child's vulnerability to psychosocial maladjustment may also increase.

Discrepancies in Views of Maternal Aggression and Mothers' Reports of Children's Psychopathology

This study also found that discrepancies in child and parent reports of aggression were unrelated to mother reports of child internalizing symptoms, but the greater the child's report of maternal aggression relative to mother report, the greater the mother-reported child aggressive and inattentive behavior. This finding suggests that mothers who viewed themselves as less aggressive may have misjudged the magnitude of psychological distress experienced by their children. In addition, it provides additional evidence for a potential link between difficulty in judging the impact of one's parenting behavior on one's child and difficulty in perceiving child internalizing symptoms. The children of these mothers may then be in the predicament of viewing their mothers as more aggressive than their mothers view themselves and also experiencing internalizing symptoms that their mothers do not recognize, placing them in a situation of double jeopardy that may bode poorly for the children's development.

This finding is consistent with those from a prospective study (see Ferdinand et al., 2004) in which children whose parents failed to recognize their internalizing symptoms but viewed them as having behavior problems had emotional and behavioral problems 4 years later. Because of the lack of objective assessment of maternal aggression, these data do not attest to whether the discrepancy in mother and child reports of maternal aggression stem from the mother's downplaying of her behavior or the child's exaggeration of symptoms. However, if it is the case that the discrepancy in this direction (child reports more maternal aggression than mother) is related to the mother's misperception, then this pattern of psychological denial of one's own aggressive behavior and child internal distress may be a function of underlying parental attributions of children as adversaries, antagonists, or victimizers against whom the parent must aggress in order to self-protect (see Rogosch, Cicchetti, Shields, & Toth, 1995; Suchman & Luthar, 2001).

Limitations and Future Work

This study has several limitations that should guide the interpretation of findings. First and most central, the cross-sectional nature of the design and data collection precludes causal inferences. Although the theoretical model informing study hypotheses involves a causal pathway (e.g., that parental aggression and discrepant views of it lead to child psychopathology), without knowing the temporal relations of these events, directionality cannot be confirmed.

It is possible that the misperceptions of the parent's behavior rest in the children's viewpoint. Children experiencing depressive and anxiety symptoms may be more likely to view their parents' behavior more negatively. This would be consistent with research documenting a depressive cognitive bias (e.g., Beck, 1967; Teasdale, 1983). Alternatively, consistent with a stress-generation model of depression (Hammen, 1991; Rudolph et al., 2000), children with internalizing symptoms may evoke more aggressive responses from their mothers. However, children who are aggressive attribute more hostility to the behavior of others (Crick & Dodge, 1994)—the fact that discrepancies in reports of maternal aggression were related to higher mother- and child-reported externalizing problems may be viewed as support of this alternative explanation.

In addition, it is possible that the child's behavior causes increased levels of parental aggression—for example, as documented in previous studies, the parents of aggressive children may react to their children's oppositional behavior with increased hostility and aggression (Campbell, Shaw, & Gilliom, 2000; Patterson, 1982). However, even if the differences in perception of maternal aggression in this study were driven by child

misperceptions, it is our contention that this discrepancy is meaningful in that the more discrepant a dyad in this study, the less likely the mothers were to perceive their child's internalizing symptoms.

A second limitation is the exclusive reliance on mother and child reports of study constructs. Without an objective assessment of maternal aggressive behavior, it is difficult to know for certain the relative accuracy of mothers' and children's reports of maternal aggression. Interpretations of findings must be considered tentative and speculative until further work can provide more neutral assessments of parenting behavior.

A third limitation pertains to the sample. The fact that the majority of these mothers were not currently abusing substances, but were maintained through the use of methadone, limits the generalizability of these findings to actively substance-abusing mothers. Future research ought to examine these questions in different types of substance abuse programs in order to see if the findings observed here apply to mothers in various stages of treatment and recovery. In addition, given that this population likely has experienced myriad stressors in the past (including maternal drug use and its attendant disruptions), the discrepancies in perceptions of parenting may originate from the time period during which the mothers were actively using and not the current time frame. Future studies may be able to isolate the independent contributors to these outcomes. Further, the children examined in this study spanned a broad age range. Although age was included as a covariate in analyses and symptoms were assessed using different versions of the BASC for different age groups, it is important to note that the meaning of internalizing and externalizing symptoms varies across age groups.

A fourth caveat is that despite our predictions, children's internalizing and externalizing symptoms fell within normal limits. Although there were some children in the sample whose symptoms fell above clinical cutoff scores, these children were in the minority of child participants in the study. The fact that the children's symptom levels were not clinically elevated calls into question the applicability of the study's findings in that the children of the methadone-maintained mothers in this sample may not be in as great of risk as would be hypothesized. Longitudinal work should examine symptom trajectories in these children over time, as well as the links between discrepancies in perceptions of parental behavior and child- and parent-reported symptoms.

Implications for Future Research and Intervention Development

With regard to future research, the inclusion of objective measures of parenting (ideally through direct observation) in addition to measures of parent and child perceptions will help clarify the magnitude and direction of possible perceptual distortions. Further examination of underlying maternal and child attributions related to parenting behavior and child adjustment is also needed to clarify the mechanisms linking perception discrepancies to child maladjustment. Finally, the possible neurobiological influence of substance use (and drug replacement therapy) on parental behavior and perceptions of children will also need to be examined in future work.

If confidence in these findings were strengthened through replications and extensions of this study, the findings reported here have potential implication for the development of interventions for mothers and children affected by substance abuse as well. Specifically, it may be critical for clinicians to help mothers recognize their child's different perspective and take it into account in order to improve relational quality and prevent emotional and behavioral problems for children. As mentioned earlier, in order for mothers to be able to recognize and acknowledge the impact of their behavior, both positive and negative, on their

child, they will need to engage in reflective function (Fonagy et al., 2001), or the capacity to recognize underlying mental states that motivate children's behavior.

In recent years, parenting interventions for substance-abusing mothers (e.g., Pajulo, Suchman, Kalland, & Mayes, 2006; Suchman, DeCoste, Castiglioni, Legow, & Mayes, 2008; Suchman, DeCoste, & Mayes, in press) have begun to focus on maternal representations of the parent-child relationship and specifically on the maternal capacity for reflective functioning (Fonagy et al., 2001), with promising results emerging from these treatments (Suchman, DeCoste, Castiglioni, McMahon, Rounsaville, & Mayes, 2010). It may be useful to teach mothers that their children may perceive parenting behavior differently than the mother intends it. Education that children's challenging behavior and moods may be caused by underlying thoughts and feelings, may help mothers become more in tune with their children's psychological symptoms and their children's perceptions of maternal parenting behavior. Such enhanced empathy may in turn promote adjustment in the mother-child relationship and thereby lessen children's vulnerability to psychosocial maladjustment.

Conclusions

The current study examined interrater discrepancies, a well-studied phenomenon, in a novel sample. Mothers in methadone-maintenance may represent a unique opportunity for intervention. By virtue of their enrollment in methadone-maintenance, these mothers are asking for help with their drug addiction, perhaps increasing the likelihood that they would be amenable to intervention regarding parenting issues as well. Results indicate that although the children of these mothers do not have clinically significant levels of internalizing and externalizing symptoms, those who perceive their mothers to be more aggressive than the mothers view themselves are at greater risk for distress. Discrepancies in views of parenting behavior may be one important indicator of distress within the parent-child relationship, distress, which in turn could become a risk factor for the development of psychiatric distress.

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Table 1

Demographic Characteristics of the Sample

	%
Marital status	
Never married	53.5
Married or with partner	18.2
Separated/divorced	21.2
Widowed	7.1
Ethnicity	
European American	49.5
African American	31.3
Latin American	15.2
Education	
College/university graduate	3.0
Partial college training	18.2
High school graduate/GED	46.6
Partial high school	32.2
Junior high school	6.0
Employment status	
Employed (full- or part-time)	17.2
Unemployed	82.8
Target children	
Male	53.5
Age (years)	
Under 4	1.0
4–5	0.0
6–11	57.6
12–16	41.4
Urine toxicology results	
Opiate positive	16.7
Cocaine positive	25.6
Benzodiazepine positive	6.7
Alcohol positive	10
Substance (general) positive	37.8

Note. $n = 99$.

Table 2

Means (Standard Deviations) of Measures of Parental Aggression-Hostility and Child Internalizing Distress and Clinical Cutoff Scores

Measures	<i>M (SD)</i>	Clinical cutoffs
Parent-reported parental care (PARQ)		
Aggression-hostility	26.04 (5.83)	> 36 ^a
Child-reported parental care (CPARQ)		
Aggression-hostility	22.30 (6.81)	> 38 ^a
Discrepancies in standardized parent and child reports		
Aggression-hostility	0.08 (1.32)	—
Child-reported child internalizing symptoms (BASC–SRF)		
Depressive symptoms	47.61 (8.49)	> 60 ^b
Anxiety symptoms	45.42 (9.35)	> 60 ^b
Parent-reported child internalizing symptoms (BASC–PRS)		
Depressive symptoms	48.40 (10.42)	> 60 ^b
Anxiety symptoms	49.27 (10.18)	> 60 ^b
Child-reported child externalizing symptoms (BASC–SRF)		
School maladjustment	47.69 (10.35)	> 60 ^b
Parent-reported child externalizing symptoms (BASC–PRS)		
Aggression	48.13 (12.51)	> 60 ^b
Hyperactivity	48.87 (12.91)	> 60 ^b
Inattention	54.13 (8.70)	> 60 ^b

Note. PARQ = Parental Acceptance–Rejection Questionnaire; CPARQ = Child-Report Form of Parental Acceptance and Rejection Questionnaire; BASC–SRF = Behavioral Assessment System for Children Self-Report Form; BASC–PRS = Behavioral Assessment System for Children Parent Report Scale; BASC = Behavioral Assessment System for Children.

^aClinical cutoff scores ($M + 1SD$) were derived from published means and standard deviations cited in Gould (1982), Franz (1990), Hartshorne (1993), Russel, Peplau, and Ferguson (1978), and Russel, Peplau, and Cutrona (1980).

^bClinical cutoff scores were provided by authors of the BASC in the published administration manual.

Table 3

Results of Hierarchical Regression Analyses Testing Associations Between Discrepancies in Mothers' and Children's Ratings of Maternal Aggression and Child Symptoms

Variable	Step	Children's self-reports				Mothers' reports of children				Children's self-report				Mothers' report of children			
		Depression		Anxiety		Depression		Anxiety		School maladjustment		Aggression		Hyperactivity		Inattention	
		ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β	ΔR^2	β
Child age	1	.06		.08*		.04		.00		.07		.04		.06		.09*	
Child gender			-.07		-.01		.01		.05		.02		-.03		-.19		-.18
Maternal depression			-.15		-.12		.12		.04		-.22*		-.10		-.01		-.12
Aggression (maternal self-report)	2	.00	.16		.23**		.15		.04		.13		.11		.10		.16
Discrepancy in mother and child ratings of maternal aggression	3	.25***	.40***	.15***	.34***	.02	.11	.00	.08	.00	.13	.05*	.37***	.05*	.34***	.04*	.34***
			-.67***		-.51***	.00	.03	.01	-.15	.06**	-.31***	.03*	-.25*	.03	-.21	.04*	-.25*

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