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Maternal Borderline Personality Disorder Symptoms and Parenting of Adolescent Daughters

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Abstract

Maternal borderline personality disorder (BPD) symptoms are associated with poorer parenting. However, most studies conducted are with young children. In the current study, the authors examined associations between maternal BPD symptoms and parenting in an urban community sample of 15- to 17-year-old girls ($n = 1,598$) and their biological mothers. Additionally, the authors tested the impact of adolescent temperament on these associations. Mothers reported on their own psychopathology and their daughters' temperament. Adolescent girls reported on mothers' parenting methods in terms of psychological and behavioral control. Results demonstrated that maternal BPD symptoms were associated with aspects of psychological and behavioral control, even after controlling for maternal depression and alcohol use severity. After examining specific BPD components that may account for these associations, the authors found that affective/behavioral dysregulation, but not interpersonal dysregulation or identity disturbance, uniquely accounted for parenting. Adolescent temperament did not moderate these associations. BPD symptoms, particularly affective/behavioral dysregulation, are important targets when conducting parenting interventions.

Borderline personality disorder (BPD) is a serious and chronic mental health disorder characterized by affective and behavioral dysregulation, chaotic interpersonal relationships, and identity disturbance (American Psychiatric Association, 2013; Trull, Tomko, Brown, &

Scheiderer, 2010). Despite an estimated 6 million women in the United States with BPD (Friedel, 2004), many of whom are likely mothers, little is known about the effects of BPD on parenting behaviors (Stepp, Whalen, Pilkonis, Hipwell, & Levine, 2012). The small body of empirical work examining the effects of maternal BPD on parenting has focused on maternal-infant or maternal-toddler dyads, with an absence of information regarding parenting when offspring are adolescents. Understanding the relationship between BPD and parenting during adolescence is important because compromised parenting is likely a mechanism via which the disorder is transmitted to offspring, and adolescence is a critical period for the onset of various forms of psychopathology (Merikangas, Nakamura, & Kessler, 2009). Examining these relationships from a developmental framework is important because we can observe how key social and emotional developmental tasks may be thwarted by particular parenting styles associated with maternal BPD symptoms (Macfe, 2009). Furthermore, few studies have controlled for other symptoms that may be comorbid with BPD, such as depression and substance use (Eaton et al., 2011), making the specificity of the link between BPD and parenting unclear. This study fills several gaps in knowledge by exploring unique associations between maternal BPD symptoms and parenting of adolescent daughters. Furthermore, we examine the specific BPD components that may be responsible for these associations. Finally, to explore how youth characteristics may shape the relationship between BPD symptoms and parenting, we examine whether the associations between maternal BPD symptoms and parenting are modified in the context of adolescent temperament.

Evidence from factor analytic studies suggests that BPD is both a unitary construct and comprises multiple latent domains of dysfunction, including dysregulated behaviors and affects, interpersonal relations, and identity (Trull et al., 2010). Each of these areas of dysfunction might contribute to maladaptive parenting behaviors in unique ways. First, the domains of affective and behavioral dysregulation severely impair functioning and are integrally related. Specifically, impulsive behavior typically occurs in the context of extreme affective instability and/or excessive anger (Coifman, Berenson, Rafaeli, & Downey, 2012; Linehan, 1993; Selby & Joiner, 2009; Tragesser, Solhan, Schwartz-Mette, & Trull, 2007). Affective instability, hostility, and impulsivity in mothers may manifest as mood-dependent parenting behaviors, including harsh punishment, invalidating responses, and coercive/controlling behaviors. Additionally, mothers' inability to regulate their own intense affect is likely to hinder their ability to manage their adolescent's negative affect and model effective self-regulation skills (Suveg, Shaffer, Morelen, & Thomassin, 2011). Therefore, it is possible that the combination of affective and behaviorally dysregulated BPD symptoms is likely to cause the broadest and most severe impairments in parenting behaviors.

However, BPD symptoms related to interpersonal dysregulation may also contribute to difficulties in parenting. Evidence suggests that relational patterns in those with BPD are characterized by intense rejection sensitivity and frantic efforts to avoid abandonment; hence, a mother with BPD might fear desertion by her daughter, especially as she reaches adolescence, and may respond to the adolescent's increasing autonomy with intrusive, coercive, and controlling behaviors. A mother with these symptoms might seek excessive reassurance and soothing from her adolescent daughter that she will not abandon her, leading to role reversals and attempts to control the daughter's behavior through guilt.

Theorists have long suggested that one key difficulty related to identity disturbances in BPD is a failure in the development of a differentiated self (Adam, Gunnar, & Tanaka, 2004) exhibited through a struggle to balance intimacy and autonomy in relationships (Bender & Skodol, 2007), in which emotional reactivity emerges in the face of separations (Bowen, 1978). Accordingly, because adolescence represents a time of increasing autonomy from parents, it may be a particularly stressful developmental period for parents with BPD to effectively navigate, possibly manifested through parental attempts to control through guilt and more intrusive behaviors. Mothers may struggle with their daughters' increasing autonomy, aware that their daughters are no longer as dependent on them as caregivers or able to provide the mother with emotional support.

In the current study, we chose to examine parenting dimensions of behavioral and psychological control because mothers' attempts to change or correct adolescent behavior may be challenged in the face of greater symptoms of psychopathology (Kiff, Lengua, & Zalewski, 2011). Although there are several ways to classify the broad array of parenting behaviors measured within the literature, there is currently no gold standard; however, almost all classification models include dimensions of behavioral and psychological control (Barber, Stolz, & Olsen, 2005). Furthermore, aspects of these parenting methods are known to be detrimental to adolescents. For instance, harsh, coercive, or inconsistent approaches to discipline are negative aspects of *behavioral control* that are related to poor outcomes in adolescents (Bailey, Hill, Oesterle, & Hawkins, 2009; Burnette, Oshri, Lax, Richards, & Ragbeer, 2012). The construct of *psychological control* is defined as an attempt to maintain power over a child and is indicative of a negative parent-child relationship (Barber, 1996). Psychological control is more common when parenting adolescents, partially because behavioral control techniques are less developmentally appropriate (Barber et al., 2005).

Daughters with difficult temperaments may exacerbate the relationship between maternal BPD symptoms and parental control strategies. Temperament is thought to reflect the physiological basis for individual differences in reactivity and self-regulation, which encompasses aspects of affect, impulsivity, attention, and inhibition (Rothbart & Bates, 2006). Child temperament has been shown to interact with parenting, such that certain temperamental dispositions may be poorly suited if coupled with certain parental characteristics (Kiff et al., 2011). Temperamental dispositions of low self-control and high negative emotionality have been demonstrated to elicit poor parenting in normative samples. Specifically, longitudinal studies have demonstrated that youth higher in negative emotionality elicit greater parental control (Clark, Kochanska, & Ready, 2000) while those lower in self-control elicit greater parental rejection (Lengua, 2006). Because these temperamental characteristics are challenging for most parents, a mother with BPD symptoms could be even more overwhelmed. To our knowledge, there are no studies predicting parenting by examining interactions between maternal BPD symptoms and adolescent temperament.

In sum, we hypothesized that maternal BPD symptoms would be associated with behavioral and psychological control, even after controlling for maternal depression and alcohol use severity. Second, we expected to find that the combined affective/behaviorally dysregulated components of BPD would be associated with behavioral and psychological control, even

after controlling for other forms of maternal psychopathology and other BPD components of interpersonal dysregulation and identity problems. Finally, we hypothesized that adolescent temperamental dispositions of low self-control and high negative emotionality would exacerbate the relationship between maternal BPD symptoms and behavioral and psychological control.

Method

Participants

The Pittsburgh Girls Study (PGS, $N = 2,451$) involves an urban community sample of four girl cohorts, ages 5, 6, 7, and 8 at the first assessment, and their primary caregivers, who have been followed annually for 12 assessment waves according to an accelerated longitudinal design. To identify the study sample, low-income neighborhoods were oversampled, such that neighborhoods in which at least 25% of families were living at or below poverty level were fully enumerated (see Hipwell et al., 2002, for details). The analyses here use data collected from the three youngest cohorts during Waves 9, 10, and 11, when girls were ages 15–17. We did not collect parent data for the oldest cohort (“cohort 8”) at Wave 11, so this cohort was not included. African American girls made up slightly more than half of the sample, and 41% were White, with the remaining girls describing themselves as multiracial. Because the majority of parents were female (93%) and the biological parent (91%), we limited our sample to biological mothers and their adolescent daughters ($n = 1,598$). Forty-six percent of mothers reported cohabitating with a spouse or domestic partner. Mothers' average age was 44.10 ($SD = 8.3$).

Data Collection

Separate in-home interviews for both the girl and the mother were conducted by trained interviewers using a laptop computer. Mothers reported on their own psychopathology and girls' temperament. Girls reported on their parents' use of psychological and behavioral control. Girls assented and parents consented to the procedures, and all study procedures were approved by the University of Pittsburgh Institutional Review Board. Families were compensated for their participation.

Measures

Parenting—Psychological control was measured at Wave 11 using three subscales from the 18-item Child Report of Parent Behavior Inventory (Schludermann & Schludermann, 1971). Adolescents reported on their mothers' parenting using a 3-point answer format from 1 (*not like*) to 3 (*a lot like*). The three subscales were Intrusiveness, Control Through Guilt, and Acceptance of Individuation. Means, standard deviations, scale alphas, and correlations for all study variables are reported in Table 1.

Behavioral control was assessed at Wave 11 via the parent report on the Conflict Tactics Scale: Parent–Child Version (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Items were scored using a 3-point answer format from 1 (*never*) to 3 (*often*). The five items from the Psychological Aggression subscale were combined with a single item on spanking to generate a construct of harsh punishment.

Maternal BPD symptoms were measured at Wave 11 using the 9-item self report screener, the International Personality Disorders Examination (Loranger, Sartorius, Andreoli, & Berger, 1994), in which parents scored items as either “true” or “false.” An additional item measuring identity confusion was added: “Feelings about myself change frequently.” A total score was obtained by adding all items. Approximately 8% of the sample had a score of 4 or greater, which is in the clinically significant range (Smith, Muir, & Blackwood, 2005). In a subsample of the PGS ($n = 65$), we have demonstrated convergent validity of the IPDE-BOR with BPD dimensional scores from clinical-rated semistructured clinical interviews ($r = .71$, $p < .001$). The internal consistency of the measure improved by deleting the item “I never threatened suicide or self harm,” with $\alpha = .71$.

To analyze the dimensions of BPD that might differentially predict parenting, a confirmatory factor analysis (CFA) examined a three-factor model, including dimensions of symptoms, that has been previously articulated in a theoretical review: Affective/Behavioral Dysregulation, Interpersonal Dysregulation, and Identity Disturbance (Trull et al., 2010). The Affective/Behavioral Dysregulation factor included items assessing extreme emotional displays, urges, tantrums, anger, and moodiness. Items assessing intense relationships and abandonment fears loaded onto the Interpersonal Dysregulation factor. Emptiness, depersonalization, and changing feelings about self loaded onto the Identity Disturbance factor. The CFA, estimated in Mplus 6.0 (Muthén & Muthén, 2006), was based on the covariance matrix. With the use of maximum likelihood estimation, the model demonstrated good fit to the data: Comparative Fit Index = .95, Root Mean Square Error of Approximation = .04 (McDonald & Ho, 2002). All items loaded $>.70$ on respective latent factors except “extreme emotional displays,” which loaded at .40.

Adolescent Temperament—Negative emotionality was measured by parent report when girls were age 15 (i.e., Wave 9 for Cohort 7, Wave 10 for Cohort 6, and Wave 11 for Cohort 5) using the Emotionality, Activity, and Sociability Temperament Survey (Buss & Plomin, 1984). The Emotionality subscale consists of five items scored using a 5-point response format from 1 (*a little*) to 5 (*a lot*). Parents also reported on girls' lack of self-control as measured through the 10-item Self-Control subscale of the Social Skills Rating System (Elliott, Gresham, Freeman, & McCloskey, 1988). Parents responded on a 3-point scale from 0 (*often*) to 2 (*never*). Higher numbers indicate *lower* self-control.

Covariates—Maternal education level and girls' ethnicity were included as covariates measured at Wave 11. Parents indicated their highest level of education. Approximately 70% of mothers had a high school education, with 12% earning a college degree or higher. Minority race status was coded “1” if the girl was non-White.

Two forms of maternal psychopathology were also included as covariates. Maternal depression severity was measured using parent reports on the Beck Depression Inventory–II (Beck, Steer, & Brown, 1996), which consists of 21 items assessing the presence and intensity of depression over the past 2 weeks. Items are scored on a 4-point scale from 0 (*absent*) to 3 (*severe*). Maternal alcohol use severity was measured each year using the Alcohol Use Disorders Identification Test (Barbor, De la Feunte, Saunders, & Grant, 1992),

which consists of 10 items rated on a 4-point scale from 0 (*never*) to 3 (*four or more times a week*).

Results

Hypothesis 1. Maternal BPD Symptoms and Associations with Parenting

Our first hypothesis tested whether maternal BPD symptoms were uniquely associated with greater behavioral and psychological control, even after controlling for maternal depression and alcohol use severity. Zero-order correlations between maternal BPD symptoms and parenting demonstrated that maternal BPD symptoms were related to lower acceptance of individuation, but higher control through guilt and harsh punishment (Table 1).

We next tested these associations simultaneously in a multivariate multiple linear regression model using Mplus 6.0. Multivariate multiple regression is an extension of multiple regression that allows for multiple dependent variables. Because these models are saturated, fit indices cannot be used to evaluate model fit. In this model, all four parenting variables were entered as dependent variables, with all covariates and maternal BPD symptoms entered as independent variables. After controlling for maternal depression and alcohol use severity, maternal BPD symptoms were positively associated with control through guilt and, along with maternal alcohol use severity, were positively related to harsh punishment, consistent with our hypothesis (Table 2). The overall amount of variance explained in parenting was small.

Hypothesis 2. Maternal BPD Components and Associations with Parenting

Next, we tested which components of BPD were related to parenting, hypothesizing that the Affective/Behaviorally Dysregulated component would be associated with negative aspects of parenting. Again, zero-order correlations were examined. Except for the nonsignificant associations between intrusiveness and BPD components, all three components of BPD were positively related to the parenting characteristics as expected (Table 1).

We also tested these associations using a multivariate multiple linear regression model, in which the covariates and three components of maternal BPD were entered simultaneously. When all components were entered together, only the Affective/Behaviorally Dysregulated component of BPD was related to the parenting variables, supporting our hypothesis (Table 3). Specifically, the Affective/Behaviorally Dysregulated component of BPD was positively related to control through guilt and harsh punishment. No other component of BPD reached significance.

Hypothesis 3. Adolescent Temperament, Maternal BPD Symptoms, and Associations with Parenting

Finally, we tested whether adolescent temperament exacerbated the association between maternal BPD symptoms and parenting. We examined zero-order correlations between adolescent temperament and parenting. Acceptance of individuation was negatively associated with adolescent low self-control and negative emotionality. Control through guilt was positively associated with low self-control and negatively associated with negative

emotionality. Finally, harsh punishment was positively associated with low self-control and negatively associated with negative emotionality. Next, maternal BPD symptoms, adolescent low self-control, and negative emotionality were mean-centered and multiplied to create interaction terms of Maternal BPD Symptoms \times Adolescent Self-Control and Maternal BPD Symptoms \times Adolescent Negative Emotionality. These interaction terms were entered into our multivariate multiple linear regression model along with covariates and main effects of maternal BPD and adolescent temperament. Several main effects of adolescent temperament predicted parenting (Table 4). However, contrary to our hypothesis, none of the interaction terms were significant, indicating that the relationship between maternal BPD symptoms and parenting was not qualified by either girls' negative emotionality or low self-control.

Discussion

This study sought to expand our knowledge of the effects of maternal BPD symptoms on parenting adolescent daughters using a large, at-risk community sample. We examined whether maternal BPD symptoms were uniquely associated with harsh punishment and psychological control, even after controlling for maternal depression and alcohol use severity. Second, we tested which components of BPD were associated with parenting behaviors. Finally, we tested whether adolescent temperament moderated the relationship between maternal BPD symptoms and parenting.

There was evidence that maternal BPD symptoms were uniquely associated with forms of psychological and behavioral control, specifically methods that rely on controlling daughters through guilt and harsh punishment. As adolescent girls seek more independence, they may feel pressure or perceive guilt from their mothers about spending more time outside the home or talking about future plans once they leave home. If mothers with greater BPD symptoms perceive that the attachment between themselves and their daughter is weakening, they may react with more anxious, angry, and intrusive parenting, which manifests as attempting to control through guilt (Morse et al., 2009). In moments of more extreme emotional or behavioral dysregulation in response to girls seeking independence, it is possible that mothers with greater BPD symptoms may also rely on more behavioral means of controlling their daughters, such as through physical punishment.

Behavioral control, as measured by harsh punishment, was associated with BPD symptoms, although not uniquely, because maternal alcohol use severity was also related (the magnitude of the regression coefficient was greater between BPD symptoms and harsh punishment compared to that between alcohol use severity and harsh punishment). In light of emerging evidence that BPD shares aspects of internalizing and externalizing symptoms (Eaton et al., 2011; Skowron & Friedlander, 1998), it is interesting that both BPD and alcohol use severity (an externalizing disorder) were related to harsh punishment, an aspect of parenting that is usually associated with more externalizing problems among youth.

After establishing which of the parenting methods were predicted by maternal BPD symptoms, we examined which aspects of the three different components of BPD, Affective/Behavioral Dysregulation, Interpersonal Dysregulation, and Identity Disturbance, were

associated with parenting. As we expected, the Affective/Behavioral Dysregulation component of BPD was most often associated with poor parenting. This finding is consistent with studies demonstrating that parental emotional reactivity negatively affects parenting (Bariola, Gullone, & Hughes, 2011). Although the other two components of BPD were not significantly associated with the parenting behaviors when the Affective/Behavioral Dysregulation component was in the model, it would be inaccurate to conclude that these components are unrelated to parenting or to the adolescent's well-being. In the bivariate case, all components were related to aspects of psychological and behavioral control, suggesting that mothers with high levels of these dimensions may also engage more in parenting methods involving control through guilt and harsh punishment. Moreover, maternal BPD symptoms can be conceptualized both in terms of "BPD mothers and BPD systems," with systems referring to the larger child-rearing context in which the mother-daughter resides that may be compromised by maternal BPD symptoms (Fruzzetti, 2012). Therefore, mothers' interpersonal dysregulation and identity disturbances may also affect the child by altering the adolescent's environment.

In an effort to capture a component of the transactional processes between mother and daughter, we tested whether adolescent negative emotionality and low self-control interacted with maternal BPD symptoms to predict parenting. Although we found support that negative emotionality and low self-control related to compromised parenting outcomes, surprisingly none of the interactions between adolescent temperament and maternal BPD symptoms were significant. These findings suggest that the impact of maternal BPD symptoms on parenting is not exacerbated by adolescent daughters' low self-control and negative emotionality. These results may imply that mother-daughter interaction patterns are "driven by" maternal BPD symptoms during this developmental period, and that earlier periods should be explored to examine epochs characterized by more child-driven or reciprocal patterns of interacting.

The current study had several limitations. First, the amount of variance the models explained in parenting was small, although the magnitude of relationship is consistent with the modest effect sizes found with maternal depression on parenting (Lovejoy, Graczyk, O'Hare, & Neuman, 2000). The degree of association between maternal BPD and parenting found in the present study may have been limited by what parenting dimensions were available. The parenting dimensions tested were limited to the self-report collected within the PGS study. Future work should focus on observational measures to elucidate novel dynamics between BPD parents and children that perhaps have not yet been well operationalized. Additionally, the impact of adolescent temperament on parenting and maternal BPD symptoms may have been attenuated by the availability of temperament data, which for some cohorts was not always collected at the same time point as maternal BPD symptoms and parenting. It is also unclear whether these same findings would be true among a sample of parents meeting diagnostic criteria for BPD. Although only 8% of our sample reached clinically significant levels, this rate is high for a community sample, reflecting the high-risk nature of the sample (Lenzenweger, Lane, Loranger, & Kessler, 2007). Given that BPD is a severe form of mental illness, it is likely that the current findings underestimate the negative impact that BPD has on parenting. Finally, the current study addresses only the relationship in mother-

daughter dyads. Future work should compare the impact of BPD symptoms on parenting in other types of caregivers and family relationships (e.g., father-daughter, mother-son).

Our finding that parents' symptoms of dysregulated affect and behavior negatively affect a range of parenting behaviors has important treatment implications. Parenting interventions may need to assist mothers in learning to regulate their own emotions in order to be able to effectively parent their adolescent daughters. Although there are no current empirically based treatments for mothers with BPD (Stepp et al., 2012), the current study helps identify important treatment targets that, if successful in reducing these symptoms, could have positive cascading effects on parenting behaviors.

The current study highlights the need for additional research on the impact of BPD on parenting. Studies have typically examined maternal BPD symptoms only in the context of the transmission of psychopathology to offspring. However, the current study sheds light on potential challenges to parenting while struggling with BPD symptoms. It is important to note that parenting difficulties may not be present for all mothers with elevated BPD symptoms. For some mothers with BPD symptoms, parenting may provide a sense of purpose or organization around a social role. Ultimately, elucidating the parenting challenges that women with BPD symptoms may face facilitates the identification of more precise mechanisms of transmission and also points to more personalized and targeted interventions for families.

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Table 1
Means, Standard Deviations, and Bivariate Correlations Among All Study Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Minority race (P)	—	-.20**	.05	-.01	.11**	.05	.03	.08**	-.15**	.15**	.04	.22**	.05	-.13**
2. Maternal education (P)	—	—	-.18**	-.12**	.15**	-.18**	-.18**	-.08**	.09**	-.13**	-.06*	-.11**	-.05	.14**
3. Maternal BPD symptoms (P)	—	—	—	.87**	.65**	.78**	.52**	.19**	-.10**	.13**	.01	.15**	.30**	-.13**
4. Affective/Behavioral Dysregulation (P)	—	—	—	—	.38**	.44**	.38**	.18**	-.09**	.11**	.01	.15**	-.10**	.25**
5. Interpersonal Dysregulation (P)	—	—	—	—	—	.45**	.34**	.09**	-.08**	.09**	.04	.11**	-.11	.16**
6. Identity Disturbance (P)	—	—	—	—	—	—	.51**	.14**	-.06*	.11**	.01	.08**	-.12**	.25**
7. Maternal depression severity (P)	—	—	—	—	—	—	—	.14**	-.11**	.05	-.05	.07*	.24**	-.11**
8. Maternal alcohol use severity (P)	—	—	—	—	—	—	—	—	-.10**	-.01	-.05	.12**	.09**	-.02
9. Acceptance of individuation (C)	—	—	—	—	—	—	—	—	—	-.02	.33**	-.39**	-.13**	-.41**
10. Control through guilt (C)	—	—	—	—	—	—	—	—	—	—	.50**	.28**	.07**	-.09**
11. Intrusiveness (C)	—	—	—	—	—	—	—	—	—	—	—	.04	-.01	.13**
12. Harsh punishment (C)	—	—	—	—	—	—	—	—	—	—	—	—	.15**	-.32**
13. Low self-control (P)	—	—	—	—	—	—	—	—	—	—	—	—	—	-.11*
14. Negative emotionality (P)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mean	—	—	1.82	1.29	.18	.47	7.48	2.28	18.04	9.22	1.62	8.41	12.81	11.16
SD	—	—	1.91	1.15	.45	.81	8.76	3.19	3.75	2.61	2.42	2.24	3.43	4.45
Alpha	—	—	.71	—	—	—	.93	.78	.87	.78	.74	.75	.82	.80

Notes. BPD = borderline personality disorder; Affective/Behavioral Dysregulation, Interpersonal Dysregulation, and Identity Disturbance reflect the BPD factor scores; negative emotionality and low self-control are adolescent temperament variables. Informants are indicated in parentheses following variable label (P = parent-report; C = girl-report). The mean presented for BPD symptoms reflects the score without the suicide item, given that we used this total for all analyses.

* $p > .05$.

** $p > .01$.

Table 2
Summary of Multivariate Multiple Linear Regression Model Demonstrating the Effects of Maternal BPD Symptoms on Parenting Dimensions of Psychological and Behavioral Control

Predictors	Psychological Control						Behavioral Control	
	Acceptance of Individuation		Control Through Guilt		Intrusiveness		Harsh Punishment	
	β	95% CI	β	95% CI	β	95% CI	β	95% CI
1. Minority race	-.13*	-1.46, -.58	.15*	.46, 1.07	.06	-.01, .571	.21*	1.71, 1.23
2. Maternal education	.04	-.03, .18	-.10*	-.20, -.05	-.07*	-.15, -.02	-.05	-.11, .01
3. Maternal depression severity	-.08*	-.07, .01	-.04	-.03, .01	-.10*	-.05, -.01	.01	-.02, .02
4. Maternal alcohol use severity	-.05	-.13, .01	-.04	-.09, .01	-.06*	-.09, -.004	.08*	.02, .09
5. Maternal BPD symptoms	-.04	-.22, .05	.14*	.10, .29	.07	-.004, .17	.13*	.08, .24
R^2		.04*		.02*		.06*		.09*

Notes: BPD = borderline personality disorder; b = standardized regression coefficient; 95% CI = 95% Confidence Interval; R^2 = amount of variance accounted for in the dependent variable by each model.

* $p < .05$.

Table 3
Summary of a Multivariate Multiple Linear Regression Model Demonstrating Effects of Maternal BPD Components on Parenting Dimensions of Psychological and Behavioral Control

Predictors	Psychological Control						Behavioral Control			
	Acceptance of Individuation			Control Through Guilt			Intrusiveness		Harsh Punishment	
	β	95% CI	β	95% CI	β	95% CI	β	95% CI	β	95% CI
1. Minority race	-.14*	-1.47, -.58	.15*	.47, 1.08	.05	-.03, .550	.22*	0.73, 1.25		
2. Maternal education	.04	-.03, .18	-.10*	-.20, -.05	-.07*	-.15, -.020	-.05	-.12, .01		
3. Maternal depression severity	-.08*	-.07, -.01	-.04	-.03, .01	-.09*	-.05, -.010	.01	-.02, .02		
4. Maternal alcohol use severity	-.05	-.13, .01	-.05	-.09, .01	-.06*	-.09, -.003	.08*	0.01, .10		
5. Affective/Behavioral Dysregulation	-.05	-.36, .07	.09*	.06, .40	.03	-.07, .210	.13*	0.13, .39		
6. Interpersonal Dysregulation	-.01	-.66, .42	.02	-.26, .49	.06	-.04, .670	.04	-.13, .51		
7. Identity Disturbance	.01	-.28, .41	.07	-.02, .45	<.001	-.23, .210	-.02	-.25, .15		
R^2		.04*		.02*		.06*		.09*		

Notes: BPD = borderline personality disorder; Affective/Behavioral Dysregulation, Interpersonal Dysregulation, and Identity Disturbance reflect the BPD factor scores. β = standardized regression coefficient; 95% CI = 95% Confidence Interval; R^2 = amount of variance accounted for in the dependent variable by each model.

* $p < .05$.

Table 4
Summary of a Multivariate Multiple Linear Regression Model Demonstrating Effects of Maternal BPD Symptoms and Adolescent Temperament on Parenting Dimensions of Psychological and Behavioral Control

Predictors	Psychological Control						Behavioral Control	
	Acceptance of Individuation		Control Through Guilt		Intrusiveness		Harsh Punishment	
	β	95% CI	β	95% CI	β	95% CI	β	95% CI
1. Minority race	-.09*	-1.1, -.31	.13*	.37, .970	.06	.02, .59	.18*	.57, 1.07
2. Maternal education	.01	-.08, .11	-.10*	-.20, -.060	-.09*	-.17, -.03	-.03	-.09, .03
3. Maternal BPD symptoms	-.02	-.16, .07	.10*	.05, .220	.02	-.06, .10	.09*	.04, .18
4. Negative emotionality	-.08	-.11, -.02	.03	-.02, .050	<.001	-.03, .03	.08*	.01, .07
5. Low self-control	.40*	.35, .47	-.06*	-.09, -.001	.14*	.06, .14	-.27*	-.21, -.14
6. Negative emotionality \times Maternal BPD symptoms	<.001	-.02, .02	-.02	-.02, .020	-.02	-.02, .01	-.01	-.01, .01
7. Low self-control \times Maternal BPD symptoms	.02	-.02, .04	-.01	-.03, .020	.01	-.02, .02	.01	-.02, .02
R^2	.18*		.03*		.06*		.16*	

Notes: BPD = borderline personality disorder; negative emotionality and low self-control are adolescent temperament variables. β = standardized regression coefficient; 95% CI = 95% Confidence Interval; R^2 = amount of variance accounted for in the dependent variable by each model.

* $p < .05$.