

Provided for non-commercial research and education use.
Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

<http://www.elsevier.com/copyright>



Contents lists available at ScienceDirect

Journal of Research in Personality

journal homepage: www.elsevier.com/locate/jrp

Predicting parenting practices from maternal and adolescent sons' personality

Robert D. Latzman^{a,*}, Natasha Elkovitch^b, Lee Anna Clark^a^a Department of Psychology, University of Iowa, 11 Seashore Hall E, Iowa City, IA 52242, USA^b Department of Psychology, University of Nebraska-Lincoln, 238 Burnett Hall, Lincoln, NE 68588, USA

ARTICLE INFO

Article history:

Available online 18 May 2009

Keywords:

Parenting
Adolescent personality
Maternal personality

ABSTRACT

We investigated interrelations among maternal and adolescent personality, and parenting practices that have been implicated in the development of disruptive behavior problems. Participants were 174 mothers and their sons age 11–16 years. Mothers and adolescents each reported on their own personalities and maternal parenting practices. Significant correlations were found between parenting practices and both maternal and adolescent personality. Personality scales assessing Positive Temperament domain traits predicted positive—but not negative—parenting; Negative Temperament domain traits and mothers' Disinhibition-related traits did the reverse, and sons' Disinhibition-related traits predicted both positive and negative parenting. Both maternal and adolescent personality significantly predicted all parenting practices. Adolescent personality moderated relations between maternal personality and three parenting dimensions: Positive Parenting, Poor Monitoring/Supervision, and Corporal Punishment.

© 2009 Elsevier Inc. All rights reserved.

1. Introduction

Risk factors associated with problematic adolescent behaviors are best conceptualized as risk factors for negative developmental trajectories; that is, they are dynamic, rather than static, in nature (Lipsey & Derzon, 1998). When risk factors exceed the parenting skill to overcome or compensate for them, a negative externalizing trajectory may ensue. Ineffective parenting is one of the most well-established factors associated with negative developmental outcomes, including disruptive behavior problems (e.g., Dishion, Patterson, Stoolmiller, & Skinner, 1991), so it is important to increase understanding of factors that contribute to ineffective parenting. The current study aims to do so by examining the predictive power of maternal and adolescent sons' personality, and their interaction, on parenting practices. Understanding relations among parenting and parent–child interactional tendencies is critical given that adolescents may evoke parenting behavior depending upon their own and their parent's personality.

There are substantial clinical, theoretical, and empirical literatures linking specific parenting practices with disruptive behaviors in childhood and adolescence (Dadds, Maujean, & Fraser, 2003; Frick, Christian, & Wootton, 1999). For example, both Patterson's (1982), Patterson's (2002) Coercive-Process Model and Gottfredson and Hirschi's (1990) "General Theory" maintain that poor parenting practices are the proximal mechanism for the development of disruptive behaviors. In a test of the former, Snyder and Patterson (1995) found that mothers of aggressive (vs. non-aggressive) boys

were more likely to provide negative reinforcement to their sons' aggressive behavior.

Low levels of parental monitoring have been shown to be associated with increased levels of aggression, delinquency, theft, and conflict with authorities; in addition, parental use of both excessively severe and Inconsistent Discipline is associated with youth aggressive behavior (Capaldi & Patterson, 1996; Gorman-Smith, Tolan, & Henry, 1999). For example, Strassberg, Dodge, Pettit, and Bates (1994) found that adolescents exposed to violent discipline (e.g., hitting) were significantly more likely to display aggressive behaviors than those who were spanked, who, in turn, displayed more aggressive behaviors than those who were not spanked. Research also has demonstrated that psychologically (vs. behaviorally) controlling parenting is associated with youth physical aggression, above and beyond other risk factors, such as gender and separation from caregiver (Joussemet et al., 2008). On the other hand, extant research indicates that regardless of ethnic and socioeconomic status, positive parental involvement buffers risk for disruptive and aggressive behaviors in childhood and adolescence (e.g., Patterson, 1982). Similarly, the provision of structure (e.g., limits) is associated with healthy child and adolescent development (Joussemet et al., 2008).

In addition to data confirming the important role of parenting in the development of disruptive behaviors in adolescence, there is growing attention to the role of parenting in the context of other influences on child and adolescent behavior (Collins, Maccoby, Steinberg, Hetherington, & Bornstein, 2000). For example, transactional models in which parent and child characteristics are mutually influential have been proposed to explain the use of specific parenting practices (Belsky, 1984; Maccoby, 1992). In his process

* Corresponding author.

E-mail address: rlatzman@psychiatry.umsmed.edu (R.D. Latzman).

model of parenting, Belsky (1984; Belsky & Jaffee, 2006) asserts that parenting is multiply determined by not only parents' personality, but also by child characteristics, most notably child personality. Subsequent research has supported a direct link between parenting practices and both parent (e.g., Belsky, Crnic, & Woodworth, 1995; Kochanska, Clark, & Goldman, 1997; Prinzie et al., 2004) and child personality (e.g., Bates, Pettit, & Dodge, 1995; Sanson & Rothbart, 1995). However, few studies have examined both in concert (for exceptions, see Clark, Kochanska, & Ready, 2000; Karreman, van Tuijl, van Aken, & Dekovic, 2008).

Whereas a large body of literature has shown associations between and among both parental and child psychopathology and parenting (e.g., Belsky & Barends, 2002; Pardini, 2008), much less research has examined relations between normal variation in personality and parenting practices. Those that have, however, find consistent relations between them. Specifically, extraversion (E), agreeableness (A), conscientiousness (C), openness (to experience; O), and low neuroticism (N) are associated with positive parenting behaviors such as displaying affection and encouraging independence (Losoya, Callor, Rowe, & Goldsmith, 1997), self-reported nurturance (Metsapelto & Pulkkinen, 2003), and sensitivity observed 1 year later (Smith et al., 2007), whereas N, and low A, C, and O are associated with less adaptive parenting such as less sensitive, effective, and stimulating observed parenting (Belsky et al., 1995), more power-assertiveness and less responsive parenting (Kochanska et al., 1997), and negative, controlling, and restrictive parenting (Losoya et al., 1997).

Youth personality characteristics also have been shown to be associated with parenting practices. Studies consistently show that difficulty or negative affect is related to less optimal parenting (Bates et al., 1995; Sanson & Rothbart, 1995), including longitudinally (e.g., Lengua & Kovacs, 2005). For example, Eisenberg and colleagues (1999) found that children's self-regulation at 6–8 years of age predicted fewer parental punitive reactions to children's emotions 2 years later, controlling for earlier child self-regulation.

Whereas parenting has been shown to be associated with both parental and child personality, much less is known about how these influences in concert contribute to explaining parenting practices. In one of the few studies to examine this question, Clark and colleagues (2000) examined the degree to which maternal personality, alone and in interaction with child emotionality, prospectively predicted aspects of parenting relevant to childhood socialization. They found that mothers who scored high on either N or E when their children were 8–10 months old used a more controlling or forceful, "power-assertion" style when disciplining their children 5 months later. The interaction of maternal personality with child emotionality, also measured at 8–10 months, contributed significantly to the prediction of power-assertive parenting as well. These data provide evidence of the bidirectionality of parent–child relationships; that is, how parents respond to their children depends on both their own and their children's traits. Further, Trentacosta and Shaw (2008) found that toddler temperament contributed incrementally above maternal personality and other maternal psychological resources, to the prediction of rejecting parenting which, in turn, predicted early-adolescence antisocial behavior. Finally, in a sample of 36-month old toddlers and their parents, Karreman and colleagues (2008) found toddler's effortful control moderated the relation between parental personality and parenting. Specifically, fathers' N was positively associated with fathers' observed positive control and fathers' E was positively associated with fathers' observed negative control, but only when children had a low level of effortful control.

Consistent with Belsky's (1984) process model of parenting, these studies highlight the importance of considering the mutual influence of both parental and child personality/temperament, as well as their combined contribution, to parenting practices. How-

ever, it is important to note that most existing research is on infant and/or young child samples. Additionally, there is a notable paucity of research examining the relative and interactive contributions of parental and child personality on specific parenting practices and those few studies that do examine this utilize samples of toddlers. No study to date has examined the interactive contributions of maternal and child personality on parenting in an adolescent sample. This is surprising given the substantial literature that links ineffective parenting to problematic behaviors in adolescence. The current study attempts to fill this void. Specifically, we examine the predictive power of maternal and adolescent personality, and their interaction, on parenting practices known to be associated with disruptive behavior problems. This investigation is unique not only in its use of an adolescent sample, but also in its use of both adolescent and parent report of parenting practices.

The extant literature does not include any investigations of this nature in an adolescent sample; thus, our expectations were based on literature with younger samples. While we would expect differences in parenting practices based on the age of the child (Frick et al., 1999), we do not expect differences in *relations* among parent and child personality traits and various parenting practices. Therefore, consistent with Belsky (1984) and the extant literature, we expected that maternal personality traits related to negative emotionality (the tendency to be easily disturbed, anxious, nervous, or lack emotional stability) and disinhibition (vs. constraint; the tendency to act in an under- vs. overcontrolled manner), would be associated with less adaptive parenting practices. More adaptive parenting practices, on the other hand, were expected to be associated with maternal personality traits related to positive emotionality, the tendency to experience more positive emotions, be more outgoing, and energetic (Clark & Watson, 2008; Watson & Clark, 1993).

Additionally, we expected that adolescent personality would contribute incrementally to maternal personality in the explanation of parenting practices. That is, maternal and adolescent personality examined conjointly will provide for a more robust predictor of parenting practices than maternal personality alone. We also expected adolescent personality to interact with maternal personality in explaining parenting. Consistent with a traditional "goodness of fit" model of parenting (Thomas & Chess, 1977), we expected that adolescents with more difficult personality traits (e.g., higher levels of negative emotionality) would experience less adaptive parenting in the context of mothers with more difficult personality traits (e.g., higher levels of disinhibition). On the other hand, more positive parenting practices are expected to be employed by mothers with more adaptive personality traits (e.g., higher levels of positive emotionality) who have sons with more adaptive personality traits. Finally, while maternal personality traits related to positive emotionality are expected to be associated with more adaptive parenting practices, we expect this to be attenuated in the context of sons with more difficult personality traits.

2. Method

2.1. Participants

Participants were 174 mothers and their sons, aged 11–16 years (mean age = 13.64, SD = 1.35), who participated in the Iowa Youth Development Project (I-YDP), a larger study of developmental factors associated with social behaviors in male adolescents. On average, the families were White (87.4%) and relatively high in socioeconomic status based on education and income. Most mothers had completed college or post-graduate education (71.9%), and one-third (34.1%) had an annual family income above \$100,000 (ranging from under \$15,000). Most mothers were married

(86.2%; 81% to their son's father, average age = 44.2 years, SD = 5.33).

2.2. Procedure

The University of Iowa's Institutional Review Board approved all the study procedures. The I-YDP used a broad-based sampling strategy to accrue a sample of male adolescents typical of the Midwestern area in which participants lived: participants were recruited from a child participant pool maintained at the university, by fliers in the community, and via advertisements placed in the daily newsletter of the local university hospital. Exclusion criteria were mental retardation, autism spectrum disorder, neurological disorder, past head injury requiring hospitalization, life-threatening medical illness, having been held back a grade, and being diagnosed with a reading disorder, all assessed by maternal report. Participants provided informed consent/assent before beginning the study procedures. All study measures were computer-administered in a single session. Mothers and adolescents each were compensated monetarily for their time. Three adolescents did not complete one measure and one did not complete another resulting in unequal sample sizes across analyses.

2.3. Measures

2.3.1. Schedule for Nonadaptive and Adaptive Personality–2nd Edition (SNAP-2)

Mothers were administered the SNAP-2 (Clark, 1993; Clark, Simms, Wu, & Casillas, *in press*), a 390-item, true–false format, factor analytically derived, self-report instrument that assesses trait dimensions of personality from normal to pathological range. The instrument consists of “Big Three” higher order temperament scales that measure the core of their respective higher order dimensions: Negative Temperament (NT), Positive Temperament (PT), and Disinhibition (vs. Constraint; DIS) and 12 lower order, more specific trait scales associated with the higher order dimensions (see Table 2 for a complete list of scales). It is important to note that the lower order trait scales are completely independent of the higher order temperament scales. SNAP-2 scales are internally consistent and temporally reliable: median internal consistency reliability (Cronbach's coefficient alpha) averaged .81 across five college, adult, and patient samples, and retest reliability ranged from .88 to .85 (Clark et al., *in press*) over 1 week to 4.5 months. The scales also demonstrate strong convergent and discriminant validity with other self-report and interview-based measures of personality (Clark, 1993; Simms & Clark, 2006).

2.3.2. Schedule for Nonadaptive and Adaptive Personality–Youth (SNAP-Y)

Adolescents were administered the SNAP-Y (Clark et al., *in press*), an item-level modification of the SNAP-2 for youth; it thus assesses the same 15 traits (again, see Table 2 for a complete list of scales). The SNAP-Y scales also are internally consistent: median alpha reliabilities = .83 in a sample of 366 adolescents aged 12–18 years. The scales also demonstrate good convergent and discriminant validity with other self- and parental reports of personality (Linde, 2001; Linde, Clark, & Simms, unpublished manuscript).

2.3.3. Alabama Parenting Questionnaire (APQ)

Mothers and sons were both administered the APQ (Frick, 1991), a 42-item questionnaire designed to tap five aspects of parenting practices related to disruptive behavior problems in children and adolescents (Shelton, Frick, & Wooten, 1996): Involvement (e.g., “your mom talks to you about your friends”), Positive Parenting (e.g., “your parents tell you that you are doing a good job”), Poor Monitoring/Supervision (e.g., “you go out without a

set time to be home”), Inconsistent Discipline (e.g., “your parents threaten to punish you and then don't do it”), and Corporal Punishment (e.g., “your parents slap you when you have done something wrong”). The APQ has parallel forms for child and parent report; the typical frequency of each behavior is rated on a 5-point scale (1 = never to 5 = always). Internal consistencies of the five parental-report scales have been shown generally to be adequate, with all scales' alphas exceeding .65, except the 3-item Corporal Punishment (.46). Parents may tend to use a single method of corporal punishment so there is not a strong correlation among Corporal Punishment items (Essau, Sasagawa, & Frick, 2006). Nonetheless, the scale distinguishes between families with disruptive children and normal control families (Shelton et al., 1996). Test–retest reliability has shown good stability ($r > .80$ for all scales; Dadds et al., 2003).

2.4. Analyses

The multiple imputation program in SAS Version 9.1 was used to impute missing items (i.e., scores were not imputed if an entire measure was missing). This approach uses maximum likelihood estimates for missing data and includes a random error component to prevent artificial inflation of item intercorrelations. Initially, the zero-order correlations of parenting with maternal and adolescent personality were examined. Then, hierarchical multiple regressions were used to examine how maternal and adolescent personality (1) jointly predicted parenting using all 15 traits and (2) jointly and interactively predicted parenting, focusing on only the “Big Three” broad temperament dimensions (as there are 225 potential interactions using all 15 traits and limited theory on which to base hypotheses regarding these interactions).

Ten regressions were performed in a two-part analysis. First, five regressions—one predicting each parenting variable—were performed in a three-step procedure: Due to the age range of the sample, adolescent age was entered at Step 1. Any of the 15 maternal and adolescent personality traits that had zero-order correlations $>|.20|$ ($p < .01$) were entered, respectively, as blocks in Steps 2 and 3 (given the number of analyses being run, we used $p < .01$ to minimize capitalizing on chance findings). Second, five further regressions focused on just the three temperament traits were performed in a four-step procedure: Steps 1–3 were the same focusing on only the “Big Three”, then in Step 4, all interaction terms between maternal and adolescent higher order temperament traits were entered as a block. If any of the nine potential interactions were significant, the model was re-run with only the significant terms included. We realize the exploratory nature of these analyses, but feel they are justified given the increasing interest in transactional models of child development and the relative paucity of attention that has been paid to the joint roles of parent and child personality in this domain.

3. Results

3.1. Inter- and cross-correlations of mother and adolescent report of parenting practices

Descriptive statistics and inter- and cross-correlations of mother and adolescent reports of parenting practices are presented in Table 1. The pattern of each group's correlations among parenting dimensions was quite similar: Corporal Punishment related weakly to the other dimensions (all r s $<|.30|$), which may, at least in part, be due to the low reliability and restricted range of the scale, Positive Parenting and Involvement were moderately (.60 in mothers) to strongly (.73 in adolescents) correlated, and the second strongest relation in both was Poor Monitoring/Supervision

Table 1
Correlations among APQ parenting dimensions.

APQ Scale	Mother report					Adolescent report				
	1	2	3	4	5	6	7	8	9	10
<i>Mother report</i>										
(1) Involvement	.73									
(2) Positive Parenting	.60	.77								
(3) Poor Monitoring/Supervision	-.33	-.23	.78							
(4) Inconsistent Discipline	-.31	-.17	.36	.81						
(5) Corporal Punishment	-.07	-.05	.11	.29	.69					
<i>Adolescent report</i>										
(6) Involvement	.36	.14	-.14	-.06	-.14	.79				
(7) Positive Parenting	.23	.26	-.07	-.04	-.21	.73	.81			
(8) Poor Monitoring/Supervision	-.21	-.04	.46	.18	.07	-.39	-.27	.82		
(9) Inconsistent Discipline	-.16	-.03	.28	.27	.06	-.15	-.18	.60	.68	
(10) Corporal Punishment	-.10	-.04	-.02	.10	.44	-.22	-.25	.09	.04	.58
Mean	39.5	24.0	17.8	12.8	3.6	35.5	21.3	22.5	13.7	3.6
Standard deviation	4.0	3.0	4.4	3.5	1.0	5.7	4.1	5.9	3.5	1.1

$N = 174$ for mother report and $N = 173$ for adolescent report. Correlations of $>|.15|$ are significant, $p < .05$; $>|.20|$, $p < .01$; $>|.25|$, $p < .001$. Convergent correlations are shown in boldface. Scale reliabilities (Coefficient Alpha) are shown in *boldfaced italics* on the diagonal. APQ = Alabama Parenting Questionnaire.

with Inconsistent Discipline (.36 for mothers, .60 for adolescents). All other correlations ranged from $|.15|$ to $|.39|$. Importantly, the mother-son cross-correlations showed a good convergent-discriminant pattern. Convergent correlations ranged from .26 (Positive Parenting) to .46 (Poor Monitoring/Supervision), with a median r of $|.36|$. In contrast, the average discriminant r was $|.10|$. Given this strong convergent-discriminant pattern, mother and adolescent reports of parenting were standardized and aggregated for all further analyses.¹

3.2. Correlations of parenting with maternal education and household income

Maternal education and household income were positively correlated with Parental Involvement ($r = .17$, $.30$, $ps < .05$, $< .01$, respectively). Household income also was positively correlated with Positive Parenting ($r = .16$, $p < .05$) and negatively correlated with Corporal Punishment ($r = -.16$, $p < .05$). Neither Monitoring or Inconsistent Discipline were correlated with either maternal education or household income.

3.3. Correlations of parenting with maternal and adolescent personality

Table 2 shows the correlations of maternal and adolescent personality, respectively, with the five parenting scales. Overall, Inconsistent Discipline, Poor Monitoring/Supervision, and Involvement showed the strongest correlations with both mothers' and sons' personalities, although a few notable correlations were found for Positive Parenting (e.g., $r = -.31$ with mothers' Detachment) and Corporal Punishment (e.g., $r = .30$ with sons' Mistrust) as well. Involvement was most strongly related to mothers' PT vs. Detachment scores, and with a number of sons' scales from both the NT and DIS factors, as well as with the PT scale. Poor Monitoring/Supervision related most strongly to both mothers' and sons' DIS and Impulsivity scales, as well as sons' Manipulativeness. Inconsistent Discipline also correlated with these scales, as well as with several other NT- and DIS-factor scales, including Mis-

trust, Aggression, and Eccentric Perceptions. Examined conversely, both mothers' and sons' DIS/Impulsivity and Eccentric Perceptions, as well as sons' Mistrust and Manipulativeness, related to parenting most strongly, whereas four personality traits were largely unrelated to parenting (Entitlement, Propriety, Workaholism, and Dependency).

3.4. Predicting parenting from maternal and adolescent personality

3.4.1. Parental Involvement

As shown in Table 3, maternal and adolescent personality jointly accounted for 32% of the variance in Involvement. In Step 2, mothers who scored higher on Detachment and Positive Temperament were found to be, respectively, significantly less and more involved with their sons. These main effects were reduced to trends or non-significant effects when adolescent personality was added in Step 3, which produced a significant 15% increase in variance explained. In the final equation, only adolescent PT was significant: The mothers of those who scored higher were more involved.

Maternal and adolescent Big Three, and their interactions (plus adolescent age) accounted for 26% of the variance in Involvement (12% and 11% for maternal and adolescent personality, respectively). Neither the interaction step nor any of the interaction terms were significant. Mothers with lower levels of NT ($\beta = -.24$, $t = -2.00$, $p < .05$) and higher levels of PT ($\beta = .41$, $t = 3.48$, $p < .001$) were more involved with their sons, and sons with higher levels of PT ($\beta = .40$, $t = 3.28$, $p < .001$), and lower levels of DIS ($\beta = -.32$, $t = -2.59$, $p < .05$) had mothers who were more involved.

3.4.2. Positive Parenting

As shown in Table 4, maternal and adolescent personality jointly accounted for 19% of the variance in Positive Parenting. In Step 2, mothers who scored higher on Detachment were found to be significantly less positive with their sons. Adolescent personality added a significant 8% in variance explained, with trend level contributions from higher PT and lower Impulsivity.

Maternal (4%, ns) and adolescent (8%; $F = 4.88$, $df = 3,163$; $p < .01$) Big Three personality traits and one significant interaction term (3%, $F = 4.46$, $df = 1,162$; $p < .05$) accounted for 15% of the variance in Positive Parenting. Mothers of adolescents who scored higher on PT ($\beta = .24$, $t = 1.98$, $p < .05$) and lower on DIS ($\beta = -.35$, $t = -2.69$, $p < .01$), respectively, were more likely to exhibit Positive Parenting. Furthermore, adolescent NT moderated the relation

¹ We chose to aggregate mother and adolescent reports of parenting because of not only the strong convergent-discriminant pattern, but also because of the current study's focus on actual parenting practices. Future research may want to examine cross-informant correspondence and mother/son perceptions of parenting. An examination of both would result in doubling of the complexity of the analyses in the current study.

Table 2
Correlations between maternal and adolescent personality and APQ parenting dimensions.

SNAP scale	APQ scale									
	Involvement		Positive Parenting		Poor Monitoring/Supervision		Inconsistent Discipline		Corporal Punishment	
	M pers	S pers	M pers	S pers	M pers	S pers	M pers	S pers	M pers	S pers
<i>Negative Temperament factor scales</i>										
Negative Temperament	-.22	-.17	-.11	-.05	.15	.14	.27 ^a	.21 ^a	.12	.09
Mistrust	-.16	-.27	-.07	-.14	.18	.23	.29 ^a	.27	.24 ^b	.30 ^{a,b}
Manipulativeness ^c	-.02	-.19	.06	-.10	.16	.34	.20 ^a	.41 ^{a,b}	-.03	.16
Aggression ^c	-.06	-.19	-.09	-.11	.16	.17	.25 ^a	.27 ^a	.16	.14
Self-harm	-.22	-.13	-.14	-.11	.21	.21 ^a	.25 ^a	.16	.14	.12
Eccentric Perceptions	-.06	-.26	-.05	-.18	.27	.20	.28 ^a	.27 ^a	.17	.26
Dependency	-.10 ^a	-.00	-.02	-.01	-.00	-.02	.03	.09 ^a	.06	-.02
<i>Positive Temperament factor scales</i>										
Positive Temperament	.31 ^a	.32 ^a	.17	.20	.00	-.03	-.16	.03	.00	.01
Exhibitionism	.21	.10	.22 ^a	.02	.09	.17	.05	.21 ^a	-.01	-.06
Entitlement	.06	.04	.14	.01	.14 ^a	.13	.03	.17 ^a	.03	.11
Detachment	-.35 ^{a,b}	-.17 ^a	-.31 ^b	-.15	.16	-.08	.13	-.04	.16	.15
<i>Disinhibition (vs. Constraint) factor scales</i>										
Disinhibition	-.10	-.33 ^{a,b}	.07	-.25	.31	.30 ^b	.35 ^{a,b}	.20	.01	.04
Impulsivity	-.07	-.30 ^a	.06	-.27 ^b	.35 ^{a,b}	.30 ^b	.35 ^{a,b}	.22	-.04	.11
Propriety	.07	.15 ^a	-.01	.13	-.11 ^a	-.11	.01	-.02	.12	.06
Workaholism	-.04	.01	-.05	.04	.05	.05	-.02	.07	.14 ^a	.16 ^a

Notes: M = Mothers (N = 174), S = Sons (N = 171). Correlations of >|.15| are significant, $p < .05$; >|.20|, $p < .01$; >|.25|, $p < .001$. SNAP = Schedule for nonadaptive and adaptive personality (for mothers, SNAP-2, 2nd edition; for sons, SNAP-Y, Youth version). APQ = Alabama Parenting Questionnaire.

^a Highest correlation in row for mothers and sons, respectively.
^b Highest correlation in column. Correlations >|.20| are shown in **boldface**.
^c Cross-loads on the Disinhibition factor.

between maternal personality and Positive Parenting for PT ($\beta = -.30$, $t = -2.03$, $p < .05$). To examine the specific form of the interaction, the slope of the final equation was computed at points that corresponded to high and low levels of the predictor variables (± 1.0 SD; see Aiken & West, 1991). As shown in Fig. 1, mothers with high-NT sons exhibited average or below average levels of Positive Parenting regardless of their own PT level, but if the son was low on NT, high-PT mothers were high—and low-PT mothers low—on Positive Parenting.

3.4.3. Poor Monitoring/Supervision

As shown in Table 5, adolescent age accounted for a significant 19% of the variance in Poor Monitoring/Supervision, with older sons receiving poorer monitoring. Maternal and adolescent personality jointly contributed an additional 20% of explanatory power. In

particular, high maternal Eccentric Perceptions and DIS predicted significantly worse Monitoring/Supervision. Although the block addition of adolescent personality was significant, adding 8% in variance explained, no specific adolescent personality trait predicted Poor Monitoring.

Maternal (8%, $F = 8.34$, $df = 3166$; $p < .001$) and adolescent (5%, $F = 4.00$, $df = 3,163$; $p < .01$) Big Three personality traits and one significant interaction term (4%; $F = 4.98$, $df = 1,162$; $p < .05$) accounted for 17% incremental variance in Poor Monitoring/Supervision (i.e., after controlling for adolescent age). Both mother ($\beta = .43$, $t = 3.70$, $p < .001$) and adolescent ($\beta = .43$, $t = 3.55$, $p < .001$) DIS produced significant main effects: in both cases, high DIS predicted poorer monitoring/supervision. Furthermore, youth DIS moderated the relation between maternal NT and Poor Monitoring/Supervision ($\beta = .35$, $t = 2.48$, $p < .05$). The specific form of the interaction is shown in Fig. 2 using the procedure described earlier. High-DIS adolescents received poorer than average Monitoring/Supervision and low-DIS adolescents better than average, but the discrepancy was greater for high-NT compared to low-NT mothers.

Table 3
Predicting Parental Involvement from maternal and adolescent personality.

Predictors	Step 1 ($R^2 = .01$)		Step 2 ($R^2 = .18$)		Step 3 ($R^2 = .33$)	
	β	t	β	t	β	t
Step 1: Adolescent age	-.13	-1.33	-.11	-1.25	-.09	-1.01
<i>Step 2: Maternal personality traits</i>						
Negative Temperament			-.03	-1.17	-.02	-.98
Self-harm			-.03	-.32	-.04	-.41
Positive Temperament			.06	2.11 [†]	.05	1.82 [‡]
Exhibitionism			.05	1.09	.07	1.66 [‡]
Detachment			-.09	-2.16 [†]	-.06	-1.56
<i>Step 3: Adolescent personality traits</i>						
Mistrust					-.04	-.91
Eccentric Perceptions					-.06	-.93
Positive Temperament					.07	3.33 [*]
Disinhibition					-.05	-.97
Impulsivity					-.06	-1.50

N = 171. F-test of change from Step 2 to Step 3: $F = 7.12$; $df = 5,159$; $p < .001$,
^{*} $p < .001$.
[†] $p < .01$.
[‡] $p < .05$.
[§] $p < .10$.

Table 4
Predicting Positive Parenting from maternal and adolescent personality.

Predictors	Step 1 ($R^2 = .00$)		Step 2 ($R^2 = .11$)		Step 3 ($R^2 = .19$)	
	β	t	β	t	β	t
Step 1: Adolescent age	-.01	-.13	.00	.05	.05	.54
<i>Step 2: Maternal personality traits</i>						
Exhibitionism			.05	1.26	.07	1.61
Detachment			-.12	-3.38 ^{**}	-.10	-2.83 [*]
<i>Step 3: Adolescent personality traits</i>						
Positive Temperament					.04	1.83 [‡]
Disinhibition					-.05	-.96
Impulsivity					-.08	-1.89 [‡]

N = 171. F-test of change from Step 2 to Step 3: $F = 5.40$, $df = 3,164$, $p < .01$, [†] $p < .05$.
^{*} $p < .001$.
^{**} $p < .01$.
[‡] $p < .10$.

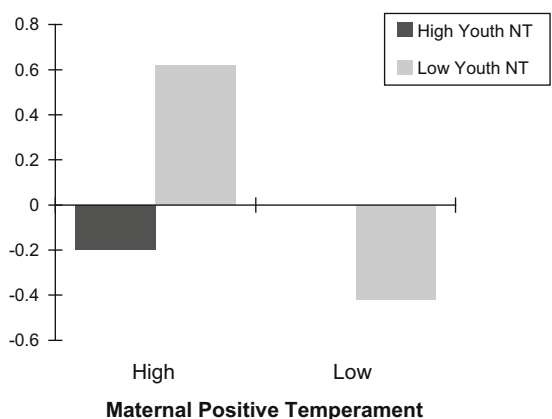


Fig. 1. Interaction between maternal Positive Temperament and Adolescent Negative Temperament: associations with Positive Parenting. High and low values correspond to +1.0 and -1.0 SD from the mean, respectively. Positive Parenting scores are standardized, $M = 0$, $SD = 1$.

Table 5
Predicting Poor Monitoring/Supervision from maternal and adolescent personality.

Predictors	Step 1 ($R^2 = .19$)		Step 2 ($R^2 = .31$)		Step 3 ($R^2 = .39$)	
	β	t	β	t	β	t
<i>Step 1: Adolescent age</i>	.55	6.21**	.50	5.88**	.48	5.72**
<i>Step 2: Maternal personality traits</i>						
Self-harm			.11	1.43	.09	1.18
Eccentric Perceptions			.12	2.41†	.09	1.73‡
Disinhibition			.15	1.97†	.17	2.25†
Impulsivity			.05	1.08	.03	.69
<i>Step 3: Adolescent personality traits</i>						
Mistrust					-.00	-.08
Manipulativeness					.07	1.41
Self-harm					.09	1.25
Eccentric Perceptions					.05	.75
Disinhibition					.01	.11
Impulsivity					.07	1.59

$N = 171$. F -test of change from Step 2 to Step 3: $F = 3.48$, $df = 6, 159$, $p < .01$, $^* p < .01$.

** $p < .001$.

† $p < .05$.

‡ $p < .10$.

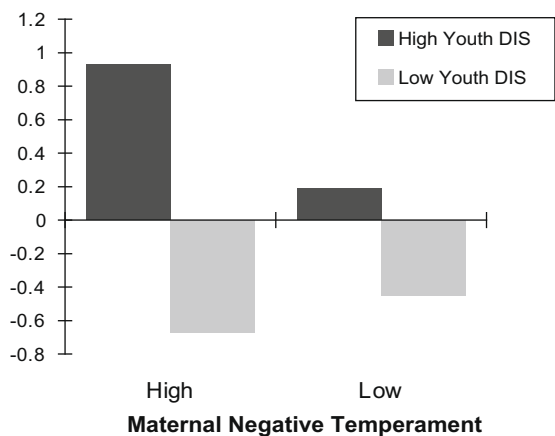


Fig. 2. Interaction between maternal Negative Temperament and Adolescent Disinhibition: associations with Poor Monitoring/Supervision. High and low values correspond to +1.0 and -1.0 SD from the mean, respectively. Poor Monitoring/Supervision scores are standardized, $M = 0$, $SD = 1$.

3.4.4. Inconsistent Discipline

Maternal and adolescent personality jointly accounted for 33% of the variance in maternal Inconsistent Discipline, on top of a 4% contribution from adolescent age: mothers of older sons disciplined less consistently, as did mothers who scored higher on Eccentric Perceptions (at a trend level, see Tables 6 and 7). However, both these effects became non-significant when adolescent personality—which explained an additional 15% of the variance—was added. Higher adolescent Manipulativeness and DIS both significantly predicted less maternal consistency in discipline.

Analysis of just the Big Three personality dimensions revealed that maternal (15%, $F = 10.25$, $df = 3, 163$; $p < .01$) and adolescent (6%, $F = 4.35$, $df = 3, 163$; $p < .01$) traits, and their interaction (2%, ns) accounted for 23% of the variance in Inconsistent Discipline. Mothers' high scores on NT ($\beta = .28$, $t = 2.47$, $p < .05$) and DIS ($\beta = .46$, $t = 3.98$, $p < .001$), and adolescents' high scores on DIS ($\beta = .33$, $t = 2.78$, $p < .01$) all predicted significantly less consistent discipline. No interactions were significant.

3.4.5. Corporal Punishment

Maternal and adolescent personality accounted for 6% and 7%, respectively, of the variance in maternal Corporal Punishment (beyond adolescent age, which predicted 3%): younger sons received more Corporal Punishment. High Mistrust in both mothers and sons predicted significantly greater maternal Corporal Punishment.

Maternal and adolescent Big Three personality traits accounted for only a non-significant 3% of the variance in Corporal Punishment, but three significant interactions jointly accounted for 8% ($F = 4.14$, $df = 3, 160$; $p < .01$). Specifically, adolescent NT moderated the relation between maternal NT and Corporal Punishment ($\beta = -.29$, $t = -1.98$, $p < .05$), whereas adolescent DIS significantly moderated the relation between maternal personality and use of Corporal Punishment for both maternal NT ($\beta = .35$, $t = 2.10$, $p < .05$) and PT ($\beta = -.29$, $t = -2.07$, $p < .05$). The specific forms of these interactions are shown in Figs. 3–5, respectively, using the Aiken and West procedure. Mothers low on NT with low-NT sons used far less Corporal Punishment than any of the other three combinations, all of which used slightly to somewhat more than aver-

Table 6
Predicting Inconsistent Discipline from maternal and adolescent personality.

Predictors	Step 1 ($R^2 = .04$)		Step 2 ($R^2 = .22$)		Step 3 ($R^2 = .37$)	
	β	t	β	t	β	t
<i>Step 1: Adolescent age</i>	.24	2.68*	.17	1.97†	.14	1.64
<i>Step 2: Maternal personality traits</i>						
Negative Temperament			.02	.73	.02	.81
Mistrust			.06	1.42	.06	1.34
Manipulativeness			-.01	-.22	-.03	-.47
Aggression			.04	.72	.04	.62
Self-harm			.04	.41	.04	.42
Eccentric Perceptions			.09	1.70‡	.05	.97
Disinhibition			.12	1.53	.14	1.78‡
Impulsivity			.08	1.56	.08	1.57
<i>Step 3: Adolescent personality traits</i>						
Negative Temperament					.01	.29
Mistrust					.00	.06
Manipulativeness					.17	3.47**
Aggression					.04	.88
Eccentric Perceptions					.03	.37
Exhibitionism					.05	1.47
Disinhibition					-.11	-2.09†
Impulsivity					.03	.80

$N = 171$. F -test of change from Step 2 to Step 3: $F = 4.28$, $df = 8, 153$, $p < .001$.

** $p < .001$.

* $p < .01$.

† $p < .05$.

‡ $p < .10$.

Table 7
Predicting Corporal Punishment from maternal and adolescent personality.

Predictors	Step 1 ($R^2 = .03$)		Step 2 ($R^2 = .09$)		Step 3 ($R^2 = .16$)	
	β	t	β	t	β	t
Step 1: Adolescent age	-.22	-2.31 [†]	-.24	-2.55 [†]	-.23	-2.46 [†]
<i>Step 2: Maternal personality traits</i>						
Mistrust			.14	3.36 ^{**}	.11	2.53 [†]
<i>Step 3: Adolescent personality traits</i>						
Mistrust					.12	2.34 [†]
Eccentric Perceptions					.03	.49

$N = 171$. F -test of change from Step 2 to Step 3: $F = 6.92$, $df = 2, 166$, $p < .01$, [†] $p < .10$, ^{*} $p < .01$.

^{**} $p < .001$.

[†] $p < .05$.

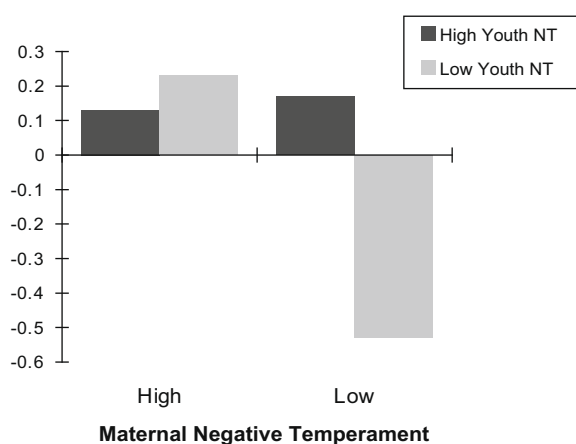


Fig. 3. Interaction between maternal Negative Temperament and Adolescent Negative Temperament: associations with Corporal Punishment. High and low values correspond to +1.0 and -1.0 SD from the mean, respectively. Corporal Punishment scores are standardized, $M = 0$, $SD = 1$.

age (see Fig. 3). In Fig. 4, mothers with low-DIS sons exhibited slightly above or below-average levels of Corporal Punishment regardless of their own NT level, but if the son was high on DIS, high-NT mothers were high—and low-NT mothers low—on Corporal Punishment. Lastly, examination of how adolescent DIS moderated the relation between maternal PT and Corporal Punishment revealed that high-PT mothers meted out more (vs. less) Corporal Punishment when their sons were low (vs. high) DIS, whereas low-PT mothers did the opposite – used more (vs. less) Corporal Punishment when their sons were high (vs. low) DIS. Moreover, the discrepancy was greater for mothers low in PT.

4. Discussion

The current investigation is the first to examine the joint roles of maternal and adolescent personality, alone and in interaction, in predicting parenting practices known to be relevant to the development of child and adolescent disruptive behaviors. Its results thus have implications for both developmental and individual differences psychology. A strength of our design is the use of composite mother–son scores for assessing parenting; that is, aggregation of even moderately correlated variables increases the reliability and validity. Analyses revealed significant correlations between parenting practices and both maternal and adolescent personality. Results of hierarchical multiple regressions predicting each of five APQ dimensions indicated that both maternal personality and adolescent personality made significant contributions to

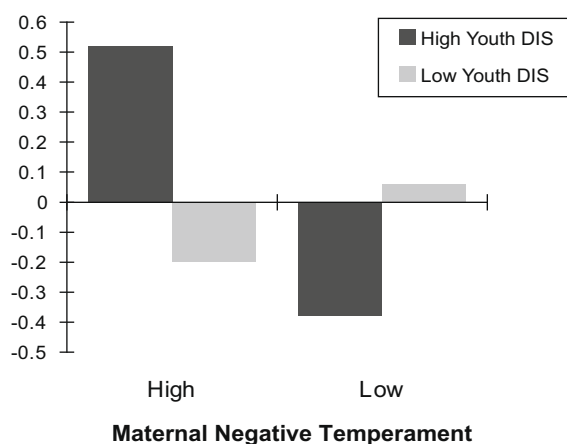


Fig. 4. Interaction between maternal Negative Temperament and Adolescent Disinhibition: associations with Corporal Punishment. High and low values correspond to +1.0 and -1.0 SD from the mean, respectively. Corporal Punishment scores are standardized, $M = 0$, $SD = 1$.

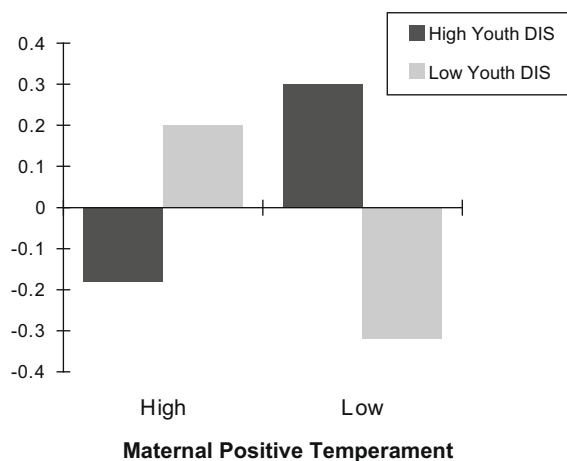


Fig. 5. Interaction between maternal Positive Temperament and Adolescent Disinhibition: associations with Corporal Punishment. High and low values correspond to +1.0 and -1.0 SD from the mean, respectively. Corporal Punishment scores are standardized, $M = 0$, $SD = 1$.

the prediction of all parenting practices. Maternal personality explained from 6% to 18% of the variance ($M = 12.8\%$), and adolescent personality added from 8% to 15% ($M = 10.6\%$) more. Furthermore, results indicated that relations between maternal personality and Positive Parenting, Poor Monitoring/Supervision, and Corporal Punishment were moderated by adolescent personality.

Individuals high on the dimension of NT tend to be easily disturbed, anxious, nervous, and lack emotional stability (Clark & Watson, 2008). Mothers high on NT or related traits (e.g., Mistrust, Eccentric Perceptions) and, conversely, the mothers of adolescents high on NT reportedly exhibited more ineffective parenting on all dimensions except Positive Parenting, with the strongest results on Inconsistent Discipline and Corporal Punishment. This is consistent with previous research on the relation between maternal NT or Neuroticism and parenting (Belsky & Barends, 2002; Clark et al., 2000; Smith et al., 2007), as well as previous research examining the relation between child NT and parenting (Lengua & Kovacs, 2005). These mothers may be less able to provide effective, sensitive, and consistent parenting as they may be more focused on themselves and their own distress rather than the needs of their children. Similarly, adolescents high on NT are likely more difficult to parent, and research has indicated that difficult children are

more likely to have parents who engage in ineffective parenting (e.g., Sanson & Rothbart, 1995).

In contrast, individuals high on the dimension of PT tend to be more outgoing, energetic, enjoy engaging in social interactions, and experience more positive emotions (Clark & Watson, 2008). Mothers high on PT (or low on Detachment)—and also mothers who had high-PT sons—engaged in more Positive Parenting and were more involved in their son's lives than mothers (or mothers with sons) low on this dimension. It is theoretically consistent that PT should be related to more Positive Parenting, as individuals high on this dimension are likely to enjoy engaging with their children and high-PT adolescents are likely easier to engage in positive interactions. Our findings are consistent with Belsky and Barends' (2002) review indicating an association between PT ("extraversion" in their review), and positive, responsive parenting. Kochanska and colleagues, however, have not found a relation between PT and responsive parenting (Clark et al., 2000; Kochanska et al., 1997) in their samples of 8–10-month and 13–15-month old infants. One explanation for this discrepancy is our use of an older, adolescent sample in which the dynamic between mothers and their sons is likely very different than it is with younger children. Future research is needed to explicate potential child age-related differences in relations between parenting practices and personality.

The temperament dimension of Disinhibition reflects under- vs. overcontrolled behavior (Watson & Clark, 1993). Mothers high on DIS and related traits (e.g., Impulsivity) were more likely to demonstrate Poor Monitoring/supervision and Inconsistent Discipline, whereas adolescent DIS was consistently associated with *all* parenting dimensions, either via main effects (e.g., sons' Manipulativeness and Inconsistent Discipline) or interactions (e.g., for high-DIS sons, mothers' NT was related to their level of Corporal Punishment). One explanation for the latter finding is that high-DIS adolescents are likely to "act out" and be more difficult to parent than adolescents low on DIS, who are more likely to be easier to engage and parent positively.

In summary, consistent with our expectations, personality scales assessing traits in the Positive Temperament domain predicted positive, but not negative parenting practices. Traits in the Negative Temperament domain predicted negative, but not Positive Parenting practices. Our findings related to Disinhibition-traits were partially consistent with expectations. Mothers' Disinhibition-related traits were predicted negative parenting practices while sons' Disinhibition-related traits predicted both positive and negative parenting practices. More research is needed to replicate specific trait predictions within each of the three broad domains.

Further, our findings are consistent with our expectations when maternal and adolescent personality was examined interactively. Results of our interaction analyses indicated that, in general, for adolescents that are likely easier to parent, maternal personality is not as important in the prediction of parenting practices as it is when adolescents are more difficult to parent. For adolescents that may be more challenging, maternal personality may play a larger role in the use of specific parenting practices. For example, mothers exhibited more Positive Parenting when mothers were high in PT and adolescents were low in NT. Poor Monitoring/Supervision was most prominent when mothers were high in NT and adolescents were high in DIS. Additionally, Corporal Punishment was most prominent when mothers were high in NT, low in PT and adolescents were high in DIS.

4.1. Limitations, implications, and conclusions

Research has found that ineffective parenting is associated with problematic behaviors in adolescence. Our research indicates that certain maternal and adolescent personality traits, and their inter-

actions, may potentiate problematic parenting practices. This suggests that interventions for problematic adolescent and parenting behaviors may be tailored to specific families. Additionally, this research suggests that interventions focused on teaching parents skills for interacting with difficult-to-parent adolescents (i.e., those high on NT and DIS) may be beneficial. Although child temperament-focused interventions have been developed and tested for parents of infants (van den Boom & Hoeksma, 1994) and preschool aged children (Sheeber & Johnson, 1994), there is little research addressing adolescent and maternal personality and parenting.

Due to the cross-sectional, correlational nature of our data, causal conclusions are not possible. Additionally, our study was limited to the contributions of maternal and adolescent personality on maternal parenting practices. Belsky (1984; Belsky & Jaffee, 2006) argues that parenting practices are also dependent on broader social-contextual and family influences, such as the marital relationship, community factors, and social support. For example, in our sample, household income was positively associated with greater levels of maternal involvement, Positive Parenting, and lower levels of Corporal Punishment. Relatedly, research indicates that inadequate parental monitoring is more common among isolated, socially disadvantaged, single mothers (Pettit, Laird, Bates, Dodge, & Criss, 2001), and lower SES families residing in dangerous urban neighborhoods are more likely to be punitive in their parenting practices (Garcia-Coil, Meyer, & Brillion, 1995). Thus, it is important that future work examine not only additional family characteristics, including fathers' personality/parenting, but also broader social-contextual factors, all of which are important elements of the intervention context (Stolk et al., 2008).

This study sample was relatively homogenous (e.g., married, college-educated mothers), and some exclusion criteria (e.g., adolescents never held back a grade) also may have restricted sample variability. Whereas this design results in fewer potential confounding variables, the degree of generalizability of results is unclear. Future research using self-reported parenting practices would benefit from inclusion of a measure of social desirability. Additionally, research using both multi-method (e.g., observational data) and multi-informant approaches is needed.

These findings add to research indicating that the associations among maternal personality, adolescent personality, and parenting practices are complex—that both mothers' and sons' personalities influence parenting conjointly and interactively. Adolescent characteristics may have an evocative influence on parenting behavior: Adolescent personality, in interaction with maternal personality, may elicit specific parenting behaviors. In turn, parenting behaviors may reinforce, exacerbate, or evoke problematic adolescent behaviors, particularly in adolescents with relevant personality traits. These interactions may be a new form of the classic goodness-of-fit models of child development (Thomas & Chess, 1977), and highlight the important reciprocal relations between parenting, maternal personality, and the personality of their children.

Acknowledgments

This research was supported in part by Grants from the University of Minnesota Press, the American Psychology-Law Society, and the American Academy of Forensic Psychology (R. D. Latzman, PI). Special thanks to Bryce Carithers, Jodie Lewis, Brittany Neef, Sarah Stellern, and Ann Twohig for assistance with data collection. Some of the data contained herein were presented at the annual meeting of the Association for Psychological Science, May, 2008.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

- Bates, J. E., Pettit, G. S., & Dodge, K. A. (1995). Family and child factors in stability and change in children's aggressiveness in elementary school. In J. McCord (Ed.), *Coercion and punishment in long-term perspectives* (pp. 124–138). New York: Cambridge University Press.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55, 83–96.
- Belsky, J., & Barends, N. (2002). Personality and parenting (2nd ed.). In M. Bornstein (Ed.), *Handbook of parenting: Being and becoming a parent* (Vol. 3, pp. 415–438). Mahwah, NJ: Erlbaum.
- Belsky, J., Crnic, K., & Woodworth, S. (1995). Personality and parenting: Exploring the mediating role of transient mood and daily hassles. *Journal of Personality*, 63, 905–931.
- Belsky, J., & Jaffee, S. (2006). The multiple determinants of parenting. In D. Cicchetti & D. Cohen (Eds.) (2nd ed. *Developmental psychopathology, risk, disorder and adaptation* (Vol. 3, pp. 38–85). NY: Wiley.
- Capaldi, D. M., & Patterson, G. R. (1996). Can violent offenders be distinguished from frequent offenders: Prediction from childhood to adolescence. *Journal of Research in Crime and Delinquency*, 33, 206–231.
- Clark, L. A. (1993). *Schedule for nonadaptive and adaptive personality (SNAP)*. Minneapolis, MN: University of Minnesota Press.
- Clark, L. A., Simms, L. J., Wu, K. D., & Casillas, A. (in press). Schedule for nonadaptive and adaptive personality: Manual for administration, scoring, and interpretation (2nd ed.). Minneapolis, MN: University of Minnesota Press.
- Clark, L. A., Kochanska, G., & Ready, R. (2000). Mothers' personality and its interaction with child temperament as predictors of parenting behavior. *Journal of Personality and Social Psychology*, 79, 274–285.
- Clark, L. A., & Watson, D. (2008). Temperament: An organizing paradigm for trait psychology (3rd ed.). In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research*, pp. 265–286). New York: Guilford Press.
- Collins, W. A., Maccoby, E. E., Steinberg, L., Hetherington, E. M., & Bornstein, M. H. (2000). Contemporary research on parenting: The case for nature and nurture. *American Psychologist*, 55, 218–232.
- Dadds, M. R., Maujean, A., & Fraser, J. A. (2003). Parenting and conduct problems in children: Australian data and psychometric properties of the Alabama Parenting Questionnaire. *Australian Psychologist*, 38, 238–241.
- Dishion, T. J., Patterson, G. R., Stoolmiller, M., & Skinner, M. L. (1991). Family, school, and behavioral antecedents to early adolescent involvement with antisocial peers. *Developmental Psychology*, 27, 172–180.
- Eisenberg, N., Fabes, R. A., Shepard, S. A., Guthrie, I. K., Murphy, B. C., & Reiser, M. (1999). Parental reactions to children's negative emotions: Longitudinal relations to quality of children's social functioning. *Child Development*, 70, 513–534.
- Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies*, 15, 597–616.
- Frick, P. J. (1991). The Alabama Parenting Questionnaire. Unpublished rating scale, University of Alabama.
- Frick, P. J., Christian, R. C., & Wootton, J. M. (1999). Age trends in the association between parenting practices and conduct problems. *Behavior Modification*, 23, 106–128.
- Garcia-Coil, C. T., Meyer, E. C., & Brillion, L. (1995). Ethnic and minority parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Biology and ecology of parenting* (vol. 2, pp. 189–209). Hillsdale, NJ: Lawrence Erlbaum.
- Gorman-Smith, D., Tolan, P. H., & Henry, D. (1999). The relation of community and family to risk among urban-poor adolescents. In P. Cohen, C. Slomkowski, & L. N. Robins (Eds.), *Historical and geographical influences on psychopathology* (pp. 349–367). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Gottfredson, M. R., & Hirschi, T. (1990). *A general theory of crime*. Stanford, CA: Stanford University Press.
- Joussemet, M., Vitaro, F., Barker, E. D., Cote, S., Nagin, D. S., & Zoccolillo, M. (2008). Controlling parenting and physical aggression during elementary school. *Child Development*, 79, 411–425.
- Karremans, A., van Tuijl, C., van Aken, M. A. G., & Dekovic, M. (2008). The relation between parental personality and observed parenting: The moderating role of preschoolers' effortful control. *Personality and Individual Differences*, 44, 723–734.
- Kochanska, G., Clark, L. A., & Goldman, M. (1997). Implications of mothers' personality for parenting and their young children's developmental outcomes. *Journal of Personality*, 65, 389–420.
- Lengua, L. J., & Kovacs, E. A. (2005). Bidirectional associations between temperament and parenting in the prediction of adjustment problems in middle childhood. *Journal of Applied Developmental Psychology*, 26, 21–38.
- Linde, J. A. (2001). Validation of the schedule for nonadaptive and adaptive personality-youth version (SNAP-Y): Self and parent ratings of adolescent personality. Unpublished doctoral dissertation, Iowa City, IA: University of Iowa.
- Linde, J. A., Clark, L. A., & Simms, L. J. (unpublished manuscript). Psychometric properties of the schedule for nonadaptive and adaptive personality–Youth version (SNAP-Y).
- Lipsey, M. W., & Derzon, J. H. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In R. Loeber & D. P. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 86–105). Thousand Oaks, CA: Sage Publications Inc.
- Losoya, S., Callor, S., Rowe, D., & Goldsmith, H. (1997). Origins of familial similarity in parenting. *Developmental Psychology*, 33, 1012–1023.
- Maccoby, E. E. (1992). The role of parents in the socialization of children: A historical overview. *Developmental Psychology*, 28, 1006–1017.
- Metsapelto, R. L., & Pulkkinen, L. (2003). Personality traits and parenting: Neuroticism, extraversion, and openness to experience as discriminative factors. *European Journal of Personality*, 17, 59–78.
- Pardini, D. A. (2008). Novel insights into longstanding theories of bidirectional parent–child influences: Introduction to the special section. *Journal of Abnormal Child Psychology*, 36, 627–631.
- Patterson, G. P. (1982). *Coercive family process: A social learning approach* (Vol. 3). Eugene, OR: Castalia.
- Patterson, G. R. (2002). The early development of coercive family process. In G. R. Patterson & J. Snyder (Eds.), *Antisocial behavior in children and adolescents: A developmental analysis and model for intervention* (pp. 25–44). Washington, DC: American Psychological Association.
- Pettit, G. S., Laird, R. D., Bates, J. E., Dodge, K. A., & Criss, M. M. (2001). Antecedents and behavior problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development*, 72, 583–598.
- Prinz, P., Onghena, P., Hellinckx, W., Grietens, H., Ghesquiere, P., & Colpin, H. (2004). Parent and child personality characteristics as predictors of negative discipline and externalizing behavior in children. *European Journal of Personality*, 18, 73–102.
- Sanson, A. V., & Rothbart, M. K. (1995). Child temperament and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting, applied and practical parenting* (Vol. 4, pp. 299–321). Hillsdale, NJ: Lawrence Erlbaum.
- Sheeber, L. B., & Johnson, J. H. (1994). Evaluation of a temperament-focused, parent-training program. *Journal of Clinical Child Psychology*, 23, 249–259.
- Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-age children. *Journal of Clinical Child Psychology*, 25, 317–329.
- Simms, L. J., & Clark, L. A. (2006). The Schedule for Nonadaptive and Adaptive Personality (SNAP): A dimensional measure of traits relevant to personality and personality pathology. In Steven Strack (Ed.), *Differentiating normal and abnormal personality* (pp. 431–450). New York: Springer.
- Smith, C. L., Spinrad, T. L., Eisenberg, N., Payne, T. K., Gaertner, B. M., & Maxon, E. (2007). Maternal personality: Longitudinal relations to parenting behavior and maternal emotional expressions toward toddlers. *Parenting: Science and Practice*, 7, 305–329.
- Snyder, J. J., & Patterson, G. R. (1995). Individual differences in social aggression: A test of a reinforcement model of socialization in the natural environment. *Behavior Therapy*, 26, 371–391.
- Stolk, M. N., Mesman, J., Van Zeijl, J., Alink, L. R. A., Bakermans-Kranenburg, M. J., & Van IJzendoorn, M. H. (2008). Early parenting intervention: Family risk and first-time parenting related to intervention effectiveness. *Journal of Child and Family Studies*, 17, 55–83.
- Strassberg, Z., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1994). Spanking in the home and children's subsequent aggression toward kindergarten peers. *Development and Psychopathology*, 6, 445–462.
- Thomas, A., & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Trentacosta, C. J., & Shaw, D. S. (2008). Maternal predictors of rejecting parenting and early adolescent antisocial behavior. *Journal of Abnormal Child Psychology*, 36, 247–259.
- van den Boom, D. C., & Hoeksma, J. B. (1994). The influence of temperament and mothering on attachment and exploration: An experimental manipulation of sensitive responsiveness among lower-class mothers with irritable infants. *Child Development*, 65, 1457–1477.
- Watson, D., & Clark, L. A. (1993). Behavioral disinhibition versus constraint: A dispositional perspective. In D. M. Wegner & J. W. Pennebaker (Eds.), *Handbook of mental control* (pp. 506–527). New York: Prentice Hall.