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Relation of Positive and Negative Parenting to Children's Depressive Symptoms

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Abstract

This study examined the combined and cumulative effects of supportive–positive and harsh–negative parenting behaviors on children's depressive symptoms. A diverse sample of 515 male and female elementary and middle school students (ages 7 to 11) and their parents provided reports of the children's depressive symptoms. Parents provided self-reports of supportive–positive and harsh–negative parenting behaviors. Structural equation modeling indicated that supportive–positive and harsh–negative parenting behaviors were nearly orthogonal dimensions of parenting and both related to children's depressive symptoms. Supportive–positive parenting behaviors did not moderate the relation between harsh–negative parenting behaviors and children's depressive symptoms. Results have implications for family intervention and preventions strategies.

A recent study of nearly 10,000 adults found that half of all people who ever experience a severe mental disorder, including major depressive disorder, report experiencing symptoms before age 14 (Kessler et al., 2005). Kessler and colleagues reported that many people who later experience a serious depressive episode often reported early, often subclinical symptoms, such as mild sadness or shyness. These results highlight the continued need for researchers to assess the precursors and familial conditions that may give rise to and help sustain children's depression. The goal of this research was to examine children's symptoms of depression in a community sample and to assess the cumulative and interactive relation of depressive symptoms with parent's supportive–positive (e.g., warm, responsive) and harsh–negative (e.g., hostile, critical) parenting behaviors.

Although low rates of supportive–positive parenting behaviors (e.g., Brennan, Le Brocque, & Hammen, 2003) and high rates of harsh–negative parenting behaviors (e.g., Harrist, Pettit, Dodge & Bates, 1994; Kim et al., 2003) correlate with high rates of depressive symptoms in children, few studies focus on both supportive–positive and harsh–negative parenting behaviors as they relate to children's depression. Occasionally, measures of positive and negative parenting behaviors are combined into a single index (e.g., Forgatch & DeGarmo, 1999). The creation of a single composite parenting construct presumes that positive and negative parenting represent opposite ends of the same underlying continuum and prevents the examination of potentially differential or interactive effects of positive and negative parenting behavior on children's depressive symptoms. Other studies (e.g., Sheeber, Hops, Andrews, Alpert, & Davis, 1998) have examined supportive–positive and harsh–negative parenting behavior in completely separate analyses, a practice that precludes the exploration

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of cumulative or interactive effects of positive and negative parenting on depression. When positive and negative parenting behaviors are examined in separate analyses, we cannot examine if high levels of supportive–positive parenting protect children from the effects of harsh–negative parenting or, conversely, if low levels of supportive–positive parenting add to children's risk for depression over and above the risk conferred by high levels of harsh–negative parenting.

Simons, Whitbeck, Conger, and Melby (1990) made an important distinction between what they called constructive (supportive–positive) and destructive (harsh–negative) parenting behaviors, outlining differential determinants of each from a social learning and exchange model perspective. Though they did not present evidence of the unique impact of constructive and destructive parenting on children's depression, they found that parental depression was related to the use of more harsh–negative parenting practices but not to constructive, supportive–positive parenting. This suggests that parental depression may be more strongly related to high levels of harsh–negative parenting behaviors than to low levels of supportive–positive parenting behaviors.

Two studies (Eamon, 2002; Eisenberg et al., 2001) took important steps toward distinguishing between the effects of low levels of supportive–positive and high levels of harsh–negative parenting on children's symptoms of depression. In a community sample of 898 children between the ages of 10 and 12 and their parents, Eamon estimated the unique effects of various positive and negative parenting on children's depressive symptoms. Both physical punishment and father's emotional support emerged as significant predictors. The findings were complicated, however, by the fact that multiple positive parenting behaviors and multiple negative parenting behaviors were entered into the model at the same time, potentially overcontrolling for the effects of other parenting behaviors. For example, a significant role for mothers' emotional support may have been statistically eliminated by controlling for fathers' emotional support with which it was highly correlated.

Eisenberg and colleagues (2001) examined children's emotional regulation as a mediator of the relation between positive and negative parental emotional expression and children's internalizing and externalizing outcomes in a sample of 202 six-year-old children who were considered at risk because of elevated scores on a screening measure. In testing alternatives to their proposed model, they found that although children's internalizing problems related to mother's expression of negative emotions, these problems were unrelated to mother's expression of positive emotions. This suggests that parents' expression of negative emotions may place children at risk for depression, over and above the expression of positive emotions.

Empirical support for the moderating effect of supportive–positive parenting (or warmth) is abundant in the parenting style literature. Parenting style researchers have extensively studied the moderating effects of parental support on the relation between parental control (supervision or strictness) and children's competence and internalizing symptoms (see Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). In a study of nearly 4,000 ninth graders, Radziszewska, Richardson, Dent, and Flay (1996) found that parents who were controlling yet warm (i.e., authoritative) had children who reported fewer depressive symptoms than parents who were controlling but not warm (i.e., authoritarian). The possible moderating effect of supportive–positive parenting behaviors on the direct effect of harsh–negative parenting behaviors is examined herein.

In this investigation, we first examine a cumulative effects model, in which supportive–positive behavior and harsh–negative behavior represent orthogonal dimensions of

parenting, with each contributing to children's depressive symptoms. Next we examine a moderation or interactive model, in which the relation of harsh–negative parenting to children's depressive symptoms is strengthened by low levels of supportive–positive parenting and weakened by high levels of supportive–positive parenting.

We constructed three hypotheses. First, supportive–positive and harsh–negative behaviors will represent relatively distinct, nearly orthogonal dimensions of parenting, Second, under the assumption that our orthogonality hypothesis holds, we hypothesize that low levels of supportive–positive parenting and high levels of harsh–negative parenting will relate to children's depressive symptoms in ways not redundant of one another. Finally, supportive–positive parenting will moderate the relation between harsh–negative parenting and children's depressive symptoms.

Method

Participants

At the start of the 2002–2003 school year, we recruited participants from five elementary schools and two middle schools serving a midsized southern city. We distributed consents to the parents of students in the second, fourth, and sixth grade. We received 660 consent forms, with 526 (80%) parents agreeing to let their children participate. Primarily due to moving or expulsion, 11 students withdrew from the study after we received their consent form, thus reducing our student sample to 515. In total, 161 second-grade students (*M* age 7.5 years), 174 fourth-grade students (*M* age 9.5 years), and 180 sixth-grade students (*M* age 11.3 years) participated. We recruited participants from predominantly lower- and working-class, urban neighborhoods. The final sample was ethnically diverse: 343 African Americans (67%), 153 (30%) Caucasians, 9 Hispanics (1.5%), 2 Native Americans (< 1%), 2 Asians or South Pacific Islanders (< 1%), and 6 "other" (1%). Slightly more girls participated (*n* = 294, 58%) than boys (*n* = 221, 42%).

We asked parents or guardians of the student participants to provide information about the target children via questionnaires. Of the 515 participating students, 284 parents (55%) completed data about the student participant. Of the 284 parent participants, 87 had children in second grade, 101 had children in fourth grade, and 96 had children in sixth grade. Most of the parents and guardians who responded were women, primarily mothers (*n* = 244) and grandmothers (*n* = 20); however, 13 fathers, 6 relatives or guardians, and 1 stepmother completed questionnaires about the target child. Of the responding adults, 47% were currently married and the remainder were either never married (27%) or divorced (26%). Approximately 27% of parents had less than a high school education, 27% of parents completed high school, 35% of parents received some education after high school, 6% received a bachelor's degree, and 4.5% completed some postbaccalaureate education.

Although repeated efforts were made to obtain data from all of the student participants' parents, including phone calls and additional mailings, about 45% of parents did not complete or return their questionnaires. We compared participating and nonparticipating parents with regard to the variables on which both groups had data (i.e., demographic characteristics and children's questionnaire data). All such differences were small and nonsignificant (all *p*s > .25). Under the assumption that the data were missing at random, though not necessarily missing completely at random (see Muthén, Kaplan, & Hollis, 1987), we utilized full information maximum likelihood methods of data analysis, which generally provides less biased estimates than more conventional methods such as listwise deletion, pairwise deletion, or imputation.

Measures

Unless otherwise noted, scale scores for each measure consisted of sums of the relevant items.

The Centers for Epidemiological Studies–Depression Scale (CES–D)—The CES–D (Radloff, 1977, 1991) is a 20-item self-report scale designed to measure depressive symptomatology with a focus on affective problems. Items reflect symptoms associated with depression (e.g., irritability, sleep, and eating disturbances). Children rated each item with regard to how frequently they experience each symptom, using a scale of 0 (*rarely or none of the time*) to 3 (*most or all of the time*). Representative items include, "I did not feel like eating; I wasn't very hungry" and "I felt down and unhappy this week." Radloff (1977) reported that the CES–D was validated using both clinical and nonclinical populations and with adolescents and youth (Radloff, 1991). This measure is psychometrically sound, with reasonably high split-half reliabilities (*r*s > .85), acceptable construct validity (e.g., significant correlation with negative life events and sensitivity to clinical treatment for depression; Radloff, 1977), and reasonably high test–retest reliabilities in adolescent samples (above .5; Roberts, Andrews, Lewinsohn, & Hops, 1990). Cronbach's alpha for the CES–D in this study was .88.

The Child Depression Inventory–Child Report (CDI)—The CDI (Kovacs, 1985) is a 27-item self-report measure that assesses cognitive, affective, and behavioral symptoms of depression in children. Each item consists of three statements graded in order of increasing severity from 0 to 2. Children select one sentence from each group that best describes themselves for the past 2 weeks (e.g., "I am sad once in a while," "I am sad many times," or "I am sad all the time"). In this study, the suicide item was dropped due to concerns by school administration, resulting in a 26-item questionnaire. In nonclinic populations the CDI has demonstrated relatively high levels of internal consistency, test–retest reliability, predictive, convergent, and construct validity (Cole & Jordan, 1995; Craighead, Smucker, Craighead, & Ilardi, 1998; Smucker, Craighead, Craighead, & Green, 1986). Timbremont, Braet, and Dreessen (2004) reported evidence for predictive and discriminant validity of children's overall CDI scores predicting depressive disorders (as opposed to anxiety disorders) in a clinic-referred population. Internal consistency for the CDI items used in this study was .90.

The CDI–Parent Report—Each of the 26 items used in the child version of the CDI was reworded for use by parents rating their children. Parents were instructed to choose one of three sentences that best fit their child's behavior over the previous 2 weeks; sentences were graded in order of increasing severity from 0 to 2 (i.e., "My child is sad once in a while," "My child is sad many times," or "My child is sad all the time"). In nonclinical samples a parent form of the CDI showed evidence of convergent validity, test–retest reliability over a 1-month interval (r = .75; Wierzbicki, 1987), and internal consistency (Cronbach's α = .88; Cole, Truglio, & Peeke, 1997). Cole, Hoffman, Tram, and Maxwell (2000) showed evidence of congruence with ratings of child versions of the CDI. Cronbach's alpha in this study was .91

Parent–Child Rating Scale (PCRS)—The PCRS is a modification of the Teacher–Child Rating Scale developed by Hightower and colleagues (1986) reworded for use with parents. The PCRS contains 18 items that assess how problematic and competent the target-child's behavior is; parents rate how true each item is on a 5-point scale ranging from 1 (*not true at all*) to 5 (*very true*). Parents rate children in six competence domains: learning/academics, acting out, assertive social skills, frustration tolerance, task orientation, and depressive/withdrawn behavior (e.g., "My child is unhappy, sad"). For these analyses, only the five-

items that comprise the Depression/Withdrawn scale were used. These five items on the Teacher–Child Rating Scale had a reliability coefficient of .65. Hightower et al. reported strong reliability (greater than .90) and validity indexes in a sample of 200 teachers and 1,379 children. In this study, the Depression/Withdrawn subscale of the PCRS had a Cronbach's alpha of .82.

Parent Rating Index of Depression (PRID)—The PRID was created for use in this study by the third author, based on Lefkowitz and Tesiny's (1980) work with peer-nomination inventories. This measure was modified for use with parents from a similar scale used with teachers (Cole et al., 1997; Cole, Martin, Powers, & Truglio, 1996). The PRID contains 13 items that assess various depressive symptoms (e.g., "Cries," "Doesn't have much fun," and "Looks sad"). When teachers answered these questions in previous research (Cole et al., 1996, 1997) the mean inter-item correlation was .49, the 6-month test–retest reliability was .69, and Cronbach's alpha ranged from .90 to .93. In this study the PRID had a Cronbach's alpha of .91.

Self-Expressiveness in the Family Questionnaire (SEFQ)—The SEFQ (Halberstadt, Cassidy, Stifter, Parke, & Fox, 1995) is a 24-item questionnaire that assesses the amount of expressed positive and negative emotions in the family environment. Parents use a 5-point Likert scale ranging from 1 (*never or none of the time*) to 5 (*all of the time or always*) to rate how often they express positive and negative emotions. Twelve items assess positive displays of emotion (e.g., "How often do you praise someone for good work?") and 12 items assess the expression of negative emotions (e.g., "Howoften do you blame someone else for family troubles?"). Halberstadt et al. (1995) and Dunsmore, Halberstadt, Eaton, and Robinson (2005) reported high internal consistency for the two factors in a sample of parents of elementary school children with alphas ranging from .87 to .89 for the positive factor and .81 to .86 for the negative factor. They also presented evidence of construct stability and validity (see Halberstadt et al., 1995; Halberstadt, Crisp, & Eaton, 1999). In this study, the SEFQ subscales retained their structural integrity when factor analyzed, and Cronbach's alphas were .87 and .79, respectively, for the positive and negative emotional expression subscales.

Parenting Behavior Inventory (PBI)—The PBI (Lovejoy, Weis, O'Hare, & Rubin, 1999) is a 20-item questionnaire that assesses positive and negative parenting behaviors. Each item is rated on a 6-point Likert scale ranging from 0 (*not at all true/I do not do this*) to 6 (*very true/I often do this*). The questionnaire consists of 10 items that assess hostile and coercive parenting behaviors (e.g., "I lose my temper when my child doesn't do something I ask him/her to do") and 10 items that assess supportive and engaged parenting behaviors (e.g., "I thank or praise my child"). Based on a confirmatory factor analysis of this measure, Lovejoy and colleagues suggested that the PBI contains two factors: supportive/engaged parenting and hostile/coercive parenting. In a series of eight studies assessing the psychometric properties of the PBI, Lovejoy and colleagues reported the PBI retained high internal validity (Cronbach's $\alpha = .83$ for the supportive/engaged factor and .81 for the hostile/coercive factor); they also presented evidence of test–retest reliability and interobserver reliability. Our own factor analysis of the PBI on this data revealed that the subscales retained their structural integrity. One item, "I demand that my child does something (or stop doing something) right away," did not load well onto the hostile/coercive factor. After we deleted this item, Cronbach's alphas for the supportive/engaged factor and the hostile/coercive factors were .85 and .75, respectively.

Procedure

Research assistants included doctoral students in clinical psychology and advanced undergraduate psychology majors at a private, midsized southern university. Research assistants received extensive training on all of the measures and procedures before data collection. The measures included in this study were a subset of instruments from a larger study administered over two 1-hr sessions, scheduled within 2 weeks of each other. To control for order effects, we counterbalanced questionnaires within each session. A research assistant worked one-on-one with each second grader, writing the responses as the child replied verbally or pointed to the answer on a chart. We met with fourth graders in small groups (3 to 4 students) and sixth graders in large groups (20 to 30 students). After obtaining the children's assent to participate, a research assistant read the items aloud to the children. In large-group administrations, additional research assistants circulated around the classroom to answer questions that arose. To ensure understanding of the questions and response items by all participants, we not only read the items aloud and answered questions as they arose, but we also used a laminated chart as a visual aid to assist the children in differentiating between the different answer choices. At the end of each session children were given candy and decorative pencils for their participation. Parents of the student participants completed a packet of questionnaires that was mailed to their home. In total, these questionnaires took approximately 30 to 45 min to complete. If parents did not return the questionnaire packet after two mailings, we prompted parents by phone. After returning these questionnaires by mail, the parents received a check for $15.

Plan for Data Analysis

To examine the relation of supportive–positive and harsh–negative parenting behaviors to children's depressive symptoms, our main data analytic tool was latent variable structural equation modeling. A strength of structural equation modeling is that it provides goodness-of-fit tests that indicate how well the data fit the specified model. We constructed two primary structural models: a within and an across-source model. For the within-source model, we used parent-reported measures of parenting to predict parent-reported measures of children's depression (see Figure 1). In the across-source model, we used parent-reported measures of parenting to predict child-reported measures of children's depression (see Figure 2). Both models included supportive–positive and harsh–negative parenting latent variables (which were allowed to correlate with each other), a Depressive Symptoms factor (either child- or parent-report), and uncorrelated error terms. We tested the significance of the Supportive– Positive Parenting × Harsh–Negative Parenting interaction in both models.

Results

Preliminary Analyses

Prior to addressing our primary hypotheses, we tested for gender and grade differences in our data. First, Box's test of homogeneity of covariances revealed that the variances and covariances among our nine variables were not significantly different across gender, $\chi^2(45, N = 515) = 56.05$, $p > .10$, or across grade level, $\chi^2(90, N = 515) = 98.25$, $p > .20$. Second, a 2 (gender) × 3 (grade) multivariate analysis of variance on the nine study variables revealed a significant multivariate main effect for grade, $F(18, 446) = 2.17$, $p < .01$, and an approaching significant ($p < .10$) main effect for gender, $F(9, 223) = 1.68$, $p < .10$. The interaction was not significant. The grade main effect was significant for the CES–D, $p < .001$. Means on these self-report measures of depressive symptoms increased with grade level (Grade 2 $M = 15.04$, Grade 4 $M = 17.98$, Grade 6 $M = 23.13$). The gender main effect was significant for positive parenting on the PBI, $p < .05$. Parents reported slightly more positive parenting for their daughters than their sons (girls $M = 68.56$, boys $M = 66.01$). Because the covariances were not significantly different across groups and because some

means were significantly different across grade and gender, we statistically controlled for group differences and conducted all subsequent analyses on the conditioned covariance matrix (see Table 1).

As shown in Table 1, the means and standard deviations are comparable to or slightly higher than the norms reported for other nonclinical samples (e.g., Craighead et al., 1998; Halberstadt et al., 1995; Hightower et al., 1986; Sourander et al., 2004; Smucker et al., 1986), suggesting that our sample was comparable to, or slightly more distressed than, other samples. The children in our sample represented a wide range of depressive symptoms with 167 children (34.7%) receiving a score of 12 or higher on the CDI and 52 children (10.8%) scoring at or above the suggested clinical cutoff score of 18. According to their parent's report on the CDI–Parent Report, 49 children (17.4%) received a score of 12 or higher and 19 children (6.8%) scored at or above 18.

Structural Equation Modeling

Both models depicted in Figures 1 and 2 were tested using Arbuckle and Wothke's (1999) AMOS program. Parameter estimates were derived using full information maximum likelihood. To identify the models, at least one unstandardized factor loading per latent variable was fixed at unity. In cases in which latent variables had only two indicators, their loadings were constrained to be equal to avoid problems with empirical under-identification.

Model 1: Within-source—In the within-source model depicted in Figure 1, positive and negative parenting subscales of the PBI and SEFQ represented the parent report of positive and negative parenting latent variables. The latent parent-reported depressive symptoms variable was represented by the three parent-report measures of children's depressive symptoms: the CDI–Parent Report, the PRID, and the PCRS.

The model provided an excellent fit to the data by most standards. The chi-square was statistically significant, $\chi^2(13, N = 515) = 35.81$, $p < .001$, suggesting the existence of statistically significant discrepancies between the model and the data; however, a relative large sample size can generate statistical significance even when the absolute size of such discrepancies is relatively small. Consequently, we examined alternative fit indexes, including the Tucker–Lewis index (Tucker & Lewis, 1973), the comparative fit index (Bentler, 1990), and the incremental fit index. These indexes ranged in size from .96 to .98. All exceeded Hu and Bentler's (1999) recommended cutoffs, suggesting that the model explained almost all of the observed covariances. Furthermore, the root mean squared error of approximation of the residuals (Steiger & Lind, 1980) was only .058 (95% confidence interval = .038 to .082), meeting Hu and Bentler's (1999) criterion for a close fit. Taken together, these indexes suggested that the model provided a good fit to the data.

Standardized parameter estimates for the within-source model appear in Figure 1. The regression of depressive symptoms onto positive parenting and negative parenting were both significant, and the relation between positive and negative parenting was not significant. Taken together, the relation of positive and negative parenting to parent-reported child depressive symptoms was $R^2 = .34$, suggesting a relatively strong relation.

Model 2: Across-source—In the across-source model depicted in Figure 2, the positive and negative parenting measures were the same as in Model 1. The latent child-reported depressive symptoms variable was represented by the two child-report measures, the CDI and CES–D.

The model also provided an excellent fit to the data by most standards. The chi-square was statistically significant, $\chi^2(9, N = 515) = 17.14$, $p < .05$, suggesting the existence of

statistically significant discrepancies between the model and the data. As before, we also examined the alternative goodness-of-fit indexes. All suggested that the model was highly consistent with the data: Tucker–Lewis Index = .96, comparative fit index = .98, and incremental fit index = .98. Also, the root mean squared error of approximation = .042 (95% confidence interval = .005 to .072), meeting Hu and Bentler's (1999) criterion for a close fit. Taken together, these indexes suggested that the model provided a good fit to the data.

Standardized parameter estimates for the within-source model appear in Figure 2. The regression of depressive symptoms onto positive parenting and negative parenting were both significant, and as in the previous model, the correlation between the two types of parenting was not significant. Taken together, the relation of positive and negative parenting to parent-reported child depressive symptoms was R^2 = .09, suggesting a relation of moderate size.

Interaction between supportive–positive and harsh–negative parenting—We tested the moderation model by using a two-stage maximum likelihood approach described by Ping (1996a, 1996b). In Stage 1, we obtained estimates of factor loadings, factor covariances, and error variances from the previous structural equation models without interaction terms (see Figures 2 and 3). In Stage 2, we added an interaction term. The interaction term had a single indicator equal to (P1 + P2)(N1 + N2), where P1 and P2 are the two manifest measures of supportive–positive parenting and N1 and N2 are the two manifest measures of harsh–negative parenting (in mean deviation form).

We applied this approach to the within-source and across-source models tested earlier. The effect of the interaction term on the child- or parent-reported depressive symptoms factor was small and nonsignificant in both models. Standardized estimates of this path coefficient ranged from −.01 to .04, indicating that supportive–positive and harsh–negative parenting did not interact in the prediction of children's depressive symptoms.

Discussion

Four major findings derive from this study. First, parent reports of supportive–positive and harsh–negative parenting behaviors were only minimally correlated, suggesting these two factors were nearly orthogonal. Second, harsh–negative parenting behaviors and children's depressive symptoms were strongly, positively related, suggesting higher levels of harsh–negative parenting were related to higher levels of depressive symptoms. Third, supportive–positive parenting behaviors and children's depressive symptoms were negatively related, indicating that lower levels of supportive–positive parenting were associated with more depressive symptoms in children. Fourth, supportive–positive parenting did not moderate the relation between harsh–negative parenting and children's depressive symptoms.

The small, nonsignificant correlation between harsh–negative and supportive–positive parenting behaviors suggests that they are nearly orthogonal constructs that should be regarded as separate dimensions, rather than as opposite ends of a single continuum. This finding does not support the occasional practice of treating supportive–positive and harsh–negative parenting as though they represented a single overarching parenting construct (e.g., Forgatch & DeGarmo, 1999) but instead provides empirical support for the more common practice of treating supportive–positive and harsh–negative parenting behaviors as orthogonal dimensions (e.g., Eamon, 2002; Eisenberg et al., 2001).

The relation between harsh–negative parenting behaviors and children's depressive symptoms supported our hypothesis that harsh–negative parenting behaviors are associated with elevated levels of children's depressive symptoms, even after accounting for supportive–positive parenting. In addition, the effect was relatively large for the within-

source model using parent's reports of child's depressive symptoms but more moderate in the across-source model that used child reports of their own depressive symptoms (Cohen, 1977). Our findings are consistent with previous research, suggesting that children whose parents displayed high levels of critical and harsh parenting behaviors were more likely to evidence depressive symptoms than were children of parents who expressed fewer such behaviors (e.g., Harrist et al., 1994; Kim et al., 2003, Simons et al., 1990).

A significant relation also existed between supportive–positive parenting behaviors and children's depressive symptoms. The effect of this relation was relatively small to medium in both the within-source and across-source structural equation models (Cohen, 1977). This finding supported our hypothesis that low levels of supportive–positive parenting behaviors, such as warmth, support, and acceptance, would be associated with higher levels of depressive symptoms even after controlling for harsh–negative parenting, which is consistent with previous research (e.g., Brennan et al., 2003).

Our speculation about moderation, in which the presence of supportive–positive parenting would diminish the impact of harsh–negative parenting, was not supported. Low levels of supportive–positive parenting and high levels of harsh–negative parenting were directly and cumulatively related to children's depressive symptoms but not related to depression in an interactive manner. The kind of interaction that exists in the parenting styles literature (between warm–supportive parenting and parental monitoring–control) that gave rise to the authoritative versus authoritarian typologies does not generalize to the dimensions of parenting represented in this study. Regardless of the degree of supportive–positive parenting behaviors, harsh–negative parenting behaviors are associated with more depressive symptoms in children.

Certain limitations of this study suggest avenues for future research. First, this study focuses on nonreferred children and their parents. Although children in this sample manifested a wide range of depressive symptoms, few were clinically depressed. Extending this work to clinical populations would inform our understanding of how parenting, particularly negative parenting, relates to depression per se. Second, our measures included only paper-and-pencil reports of parenting behaviors and depressive symptoms. Third, our measure of emotional expressiveness did not specify that expressions of positive and negative expressions are necessarily directed at the child. Although such expressions clearly contribute to the general family milieu of which the child is a part, future research might examine more specific, directed communications. Fourth, although we did obtain parents' reports of parenting behaviors in this study, we did not obtain children's reports of parenting behaviors. Fifth, although there were no significant differences between children whose parents participated and those whose parents did not participate, we cannot rule out the possibility that the parents who did not participate may have differed from the parents who did participate. Finally, these results are based on cross-sectional data, making tenuous any considerations about causal relations between parenting behaviors and children's depressive symptoms. Longitudinal designs would enable us to test causal hypotheses more rigorously and examine possible reciprocal relations (i.e., children's depressive symptoms may pull for problematic parenting).

These findings provide support for a cumulative model regarding the relation of parenting behaviors and depressive symptoms in children. The orthogonality of these dimensions of parenting suggests that family interventions may be more effective in reducing children's symptoms of depression when they take a two-pronged approach, such as focusing on decreasing harsh–negative and increasing supportive–positive parenting behaviors. Teaching one set of skills does not ensure that the other will necessarily follow. Two-pronged

approaches may be more beneficial than treatments that focus on only one set of parenting behaviors.

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Figure 1.
Path diagram of within-source structural equation Model 1.

Figure 2.
Path diagram of across-source structural equation Model 2.

Table 1

Correlations, Means, and Standard Deviations of Variables Used in This Study

	1	2	3	4	5	6	7	8	9	M	SD
1. PBI–Pos	1.00									67.29	7.40
2. SEFQ–Pos	0.51	1.00								40.71	7.48
3. PBI–Neg	−0.14	−0.03	1.00							37.73	6.44
4. SEFQ–Neg	−0.06	0.00	0.42	1.00						9.46	6.72
5. CDI–PR	−0.17	−0.19	0.25	0.25	1.00					5.62	6.19
6. PCRS	−0.17	−0.05	0.28	0.34	0.53	1.00				7.61	3.08
7. PRID	−0.25	−0.17	0.29	0.30	0.69	0.64	1.00			22.61	8.24
8. CDI	−0.17	−0.14	0.19	0.07	0.23	0.19	0.23	1.00		9.45	6.06
9. CES–D	−0.09	−0.02	0.12	0.00	0.16	0.21	0.17	0.41	1.00	18.72	12.39

Note: SEFQ–Pos = Self-Expressiveness in the Family Questionnaire–Positive Factor; PBI–Pos = Parent Behavior Inventory–Positive Factor; SEFQ–Neg = Self-Expressiveness in the Family Questionnaire–Negative Factor; PBI–Neg = Parent Behavior Inventory–Negative Factor; CDI–PR = Child Depression Inventory–Parent Report; PCRS = Depressive scale of Parent Report of Child's Behavior; PRID = Parent Rating Index of Depression; CDI = Child Depression Inventory–Child Report; CES–D = Center for Epidemiological Studies–Depression Scale.

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