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Resilient Parenting of Children at Developmental Risk Across Middle Childhood

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Abstract

This paper focuses on factors that might influence positive parenting during middle childhood when a parent faces formidable challenges defined herein as “resilient parenting.” Data were obtained from 162 families at child age 5 and 8 years. Using an adapted ABCX model, we examined three risk domains (child developmental delay, child ADHD/ODD diagnosis, and low family income) and three protective factors (mother’s education, health, and optimism). The outcome of interest was positive parenting as coded from mother-child interactions. We hypothesized that each of the risk factors would predict poorer parenting and that higher levels of each protective factor would buffer the risk-parenting relationship. Positive parenting scores decreased across levels of increasing risk. Maternal optimism appeared to be a protective factor for resilient parenting concurrently at age 5 and predictively to age 8, as well as a predictor of positive change in parenting from age 5 to age 8, above and beyond level of risk. Maternal education and health were not significantly protective for positive parenting. Limitations, future directions, and implications for intervention are discussed.

1. Introduction

The construct of resilience has become increasingly popular in several areas of family research and has facilitated exploration of the factors and processes associated with good outcomes in adverse circumstances. Whereas the traditional focus in this area has been on problems or deficits that needed to be remedied, the shift to a resilience framework has

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provided the opportunity to identify strengths and opportunities to build on. There are several proposed definitions of resilience, but the two crucial components are 1) a significant threat or difficult circumstance, and 2) positive adaptation (Luthar, Cicchetti, & Becker, 2000).

The majority of resilience research has focused on children who are doing better than expected in difficult circumstances, and several studies have found positive parenting to be one of the most important predictors of childhood resilience (Vanderbilt-Adriance & Shaw, 2008; Luthar & Brown, 2007; Burchinal, Roberts, Zeisel, Hennon, & Hooper, 2006; Howard & Johnson, 2000). Positive parenting appears to be instrumental in helping children develop intrinsic resilient capacities and effective coping responses to stressors (Masten, 2001; Howard & Johnson, 2000). Given the strong protective capacity of positive parenting, it is important to understand what factors predict positive parenting behaviors, especially in the face of risk. However, we have very little understanding of what factors might act to promote positive parenting when a parent faces formidable challenges, defined here as “resilient parenting.” The current study examined mothers of school-age children who presented with risk factors in the realms of child characteristics and family economic resources and what potential protective factors might be particularly important for positive parenting in this population.

The resilience model for this study was developed with consideration to developmental theory as well as prominent features within the particular risk factors under study. There are several existing complex models of parenting (Bornstein, 2002), but broadly there is consensus that important determinants of parenting include child characteristics, family economic resources, and parent characteristics. These three determinants are seen as influencing parent mental health, marital relationships, and social support. Because parental competence is multiply determined, it stands to reason that the parenting system is buffered against threats to its integrity that derive from weaknesses in any single source. Guided by these broader parenting models, we previously developed a model of resilient parenting for mothers of preschool-age children, aged 3 to 5 years (Ellingsen, Baker, Blacher, & Crnic, 2013). Results indicated that child developmental delay, child behavior problems, and low family income were all risk factors for less positive parenting, and levels of positive parenting decreased as levels of risk increased. However, mother attributes – education, optimism, and health – acted as protective factors to buffer this risk-poorer parenting relationship.

There are several changes that occur in the family context as children transition from preschool to school-age, and risk and protective factors for parenting might change in salience as a child develops and as parenting demands change. For example, mothers may become more acclimated to their child’s developmental delay or problem behaviors over time. On the other hand, mothers may become more aware of their child’s cognitive limitations or problem behaviors as same-age peers advance in their academics and social relationships. Therefore, the model used in the previous study of mothers and their preschool-age children was replicated in the current study to assess how risk and protective factors for positive parenting might change over the course of middle childhood.

This study used the same risk and protective factors as the preschool-age study (Ellingsen et al., 2013), except that ADHD or ODD diagnosis was used instead of the broad behavior problems variable, as these represent the most diagnosed disorders in school-age children. Therefore, the three specific risk factors we examined here that would be likely to impair positive parenting were child developmental delay (DD), child ADHD or ODD diagnosis, and low family income. These risk factors often present together, with higher prevalence of DD in low SES communities (Emerson, 2012; Leonard & Wen, 2002) and higher prevalence of mental health disorders – most commonly, ADHD and ODD – in children with DD than in typically developing children (Baker, Neece, Fenning, Crnic, & Blacher, 2010; Dekker & Koot, 2003; Neece, Baker, & Lee, 2013).

With regard to the risk factor of child DD, our previous work suggested that child DD predicts less positive parenting at child age 3 and again at age 5 (Ellingsen et al., 2013). This coincides with other findings that child DD has a significant negative impact on parenting behavior, such that children with DD are more likely to have parents who are more intrusive and who display more negative affect than parents of typically developing (TD) children (Brown, McIntyre, Crnic, Baker, & Blacher, 2011; Floyd, Harter, & Costigan, 2004). One explanation for this finding is that a parent of a child with a disability may be required to spend more time in structured interactions, such as teaching, with the child; when the parenting-child interaction is perceived as less rewarding or more challenging, the parent may be more likely to show heightened levels of negative affect (Brown et al., 2011).

The second risk factor of interest- child ADHD or ODD diagnosis- has also been found to be a significant predictor of poorer parenting behaviors. For example, mothers of children with ADHD have been shown to be more negative, directive, and controlling as well as less responsive to, and rewarding of, their children's behavior (Johnson & Mash, 2001; Lange, Sheerin, Carr, Dooley, Barton, Marshall, et al., 2005). This coincides with other evidence that child behavior problems predict negative parenting practices (Marchand, Hock, & Widaman, 2002; Pardini, Fit, & Burke, 2008; Snyder, Cramer, A Frank, & Patterson, 2005). If a child has a difficult temperament and exhibits frequent behavior problems the parent is more likely to respond negatively, providing fewer positive interactions than if a child is more easygoing (Collins, Maccoby, Steinberg, Hetherinton, & Bornstein, 2000). In our sample, we similarly found that child behavior problems was a significant risk factor for less positive parenting at child ages 3 and 5 years (Ellingsen et al., 2013).

Lastly, lower levels of financial resources may also predict less positive parenting practices (Chaudhuri, Easterbrooks, & Davis, 2009; Linver, Brooks-Gunn, & Kohen, 2002; Degarmo, Forgatch, & Martinez, 1999). Parents with lower income have been found to be less child-centered and nurturing and more rejecting in interactions with their children than parents with higher income (Mistry, Biesanz, Taylor, Burchinal, & Cox, 2004). This finding has been attributed in part to increased stress levels and fewer resources (e.g. child care) for parents with low income (McLoyd, 1998). We found in our preschool sample that lower family income predicted less positive parenting at child age 3 and 5 years (Ellingsen et al., 2013).

With consideration to the often co-occurring risk factors outlined above in the realms of child characteristics and family economic resources, we examined potential parent characteristics that might act as protective factors to facilitate positive parenting in the face of child and economic risk. Based on findings in the broader developmental and resilience literature, as well as results from our previous study of mothers with preschool-age children, we examined three potential mother-related protective factors: maternal education, health, and dispositional optimism.

Mother education has been identified repeatedly as a correlate or predictor of positive parenting behavior (Blacher, Baker, & Kaladjian, 2013; Richman, Miller, & LeVine, 1992). Education can provide mothers with important cognitive resources that help them to engage in more effective parenting (Neitzel & Stright, 2004). Too, education may be a mechanism for mothers to develop self-efficacy (Coleman & Karraker, 1997); mothers with more education may feel more capable of handling their parenting responsibilities. Fox et al. (1995) found that mothers with more education were less likely to perceive their children as difficult, suggesting that education may act as a protective factor in modifying the effects of child temperament on parenting behavior. In our previous study education was found to be a protective factor for positive parenting at child age 3 and also 5 years. Furthermore, there was an interaction between risk and education at age 3; mothers with higher education engaged in more positive parenting at higher levels of risk than did mothers with less education (Ellingsen et al., 2013).

There is limited research on how maternal physical health affects parenting behavior, but mother perceived health was found to be an important protective factor for positive parenting at child age 5 in our sample (Ellingsen et al., 2013). Furthermore, better maternal health predicted positive changes in parenting from child age 3 to age 5. It is reasonable to assume that good health and associated higher levels of energy may increase the likelihood of positive parenting, even in the face of adverse circumstances. A few other studies have found that mothers with impaired health engage in less effective parenting behaviors. Nehring and Cohen (1995) found that mothers with chronic illness displayed reduced parenting efficacy. Evans, Shipton, and Keenan (2006) compared the parenting strategies used by mothers with chronic pain to parenting strategies used by a control group of mothers without pain. They found that mothers with chronic pain were more likely to engage in permissive parenting and develop a poorer relationship with their child.

Dispositional optimism is a relatively stable, general tendency of individuals to expect positive outcomes (Scheier & Carver, 1985). Individuals high in optimism typically have better psychological adjustment to negative life events (Brissette, Scheier, & Carver, 2002). Fletcher and Clarke (2003), for example, found that parents who adapted most successfully to having a child with cancer tended to perceive the good in situations. Specific to mothers of children with developmental delays or disabilities, maternal optimism was found to relate to increased positive affect and decreased negative affect and more adaptive coping strategies (Blacher, Baker, & Berkovits, 2013). Baker, Blacher, and Olsson (2005) found that when child behavior problems were high, mothers with higher dispositional optimism reported higher scores on measures of well-being than did mothers who were less optimistic.

Specific to parenting, Hjelle, Busch, & Warren (1996) found that maternal optimism was positively related to maternal warmth and negatively related to aggression, hostility, indifference, and neglect. Similarly, Jones, Forehand, Brody, and Armistead (2002) found that maternal optimism was associated with positive parenting in inner-city African American single mothers. Overall, the literature suggests that optimism helps maintain positive parenting during adverse times (Taylor, Larsen-Rife, Conger, Widaman, & Cutrona, 2010), and this was found to be the case in our previous study as well. Optimism was a significant protective factor at child age 3 and again at age 5.

Thus, the current study replicates a previous study of resilient parenting of preschool-age children (Ellingsen et al., 2013). Therefore, we used a similar ABCX model to conceptualize factors predicting positive parenting behaviors (see Figure 1). The model includes the three risk domains described above: (A) child DD status, child ADHD or ODD diagnosis, and low family income. The outcome of interest (X) was observed mothers' positive parenting behaviors. We hypothesized that each of these risk factors would predict poorer parenting ($A - X$), and that the effect on parenting would be cumulative, or even compounded, when more than one risk factor was present. We also hypothesized that the A-X relationship would be buffered by maternal resources (B: mother education and perceived health), and cognitions (C: mother dispositional optimism). We hypothesized that higher levels of these resources and cognitions would buffer the A-X relationship; that is, they would, in the face of risk, increase the likelihood of positive (resilient) parenting.

Resilient parenting was assessed at child age 5 and 8 years old. First, the A-X relationship was examined to validate the risk factors concurrently at age 5 and then predictively from age 5 to age 8. Second, the full model was assessed to determine which resources and cognitions acted as protective factors, concurrently at age 5 and predictively from age 5 to age 8. Third, we examined whether risk factors at age 5 predicted change in positive parenting over a three-year period. It is important to consider longer-term improvements in parenting in the face of adversity, as it may take some time for parents to strengthen and use their personal resources. This design also allows for continued examination of protective factors over time, as different factors may be more helpful during particular child developmental periods.

2. Materials and methods

2.1. Participants

Participants were 162 families in a longitudinal study of young children, with samples assessed in Southern California at the University of California, Los Angeles, and University of California, Riverside (74%) and in Central Pennsylvania at Pennsylvania State University (26%). Families of children with developmental delays at age 3 years were recruited primarily through agencies that provided and purchased diagnostic and intervention services for persons with intellectual and developmental disabilities. Children with an autism diagnosis at the initial evaluation were excluded. Families of children with typical development were recruited primarily through local preschools and daycare programs. Further selection criteria were that the child scored in the range of normal cognitive development and not have been born prematurely or have any developmental disability.

Based on the *Stanford-Binet IV* (Thorndike, Hagen, & Sattler, 1986) at age 5 years, children were divided into two groups: developmental delay (DD, score 36–84, $n = 53$) or typically developing (TD, score 85 or higher, $n = 109$). Table 1 shows child, mother, and family demographic characteristics at child age 5. The percent of the sample with each of the three risk factors was similar. Mother race/ethnicity was 62.3% Caucasian, 21.6% Latino, 8.6% African American, 4.3% Asian American, 1.2% Native American, and 1.9% classified as “other.” Recruitment had initially focused on intact families, so 81.5% of participants were married (defined here as legally married or living together at least six months). The average socioeconomic status was moderately high; 58.7% of families had an annual income above \$50,000 and the average years of schooling for mothers was three years of college.

2.2. Procedures

All procedures were approved by the Institutional Review Boards of the universities involved. In recruiting participants, school and agency personnel mailed brochures describing the study to families who met selection criteria and interested parents contacted the research center closest to them. The mother and child came to an assessment session at the child study center at child age 5 years; the child’s intellectual level was assessed and observational measures of the mother-child interaction were made. The family was visited for home observations that yielded the parenting outcome variables at child ages 5, 7, and 8 years. Mothers’ self-report of optimism and report of their children’s ADHD and ODD symptoms were obtained as part of a packet of measures completed at child age 5. The remaining data used in this study came from a family demographic assessment at child age 5. Families received an honorarium for their participation.

2.3. Measures

2.3.1. Measures of Risk Factors (age 5)

2.3.1.1. Child DD/TD Status: *Stanford-Binet IV* (Thorndike et al., 1986): The *Stanford-Binet IV* was administered to assess children’s cognitive abilities at age 5. The *Stanford-Binet IV* yields an IQ score with a normative mean = 100 and $SD = 15$. It is particularly well suited to the evaluation of children with delays, because the examiner adapts starting points according to the child’s developmental level. The risk cut-off used was a score below 85 (indicating borderline ID or ID).

2.3.1.2 Child ADHD/ODD diagnosis: *Child Behavior Checklist for ages 1.5–5 (CBCL; Achenbach & Rescorla, 2000)*: The CBCL assesses behavior problems in children with or without delayed development. This preschool form has 99 items that indicate child problems. The respondent indicates whether each item is (0) not true, (1) somewhat or sometimes true, or (2) very true or often true, now or in the past two months. The present study utilized only ADHD and ODD clinical scores; these are converted to T scores with a mean of 50 and SD of 10. There are six items in each scale; in the present sample at child age 5, alphas for the ADHD and ODD scales were 0.83 and 0.86, respectively. Elevated ADHD and ODD symptoms were determined following Achenbach’s (2000) suggested groupings of non-clinical (T score < 60) and clinical (T score ≥ 60 , indicating borderline or

clinical range). The risk cut-off used was a *T* score greater than or equal to 60 on one or both of the scales.

2.3.1.3 Family Income: Family Demographic Assessment: A family demographic assessment, administered to mothers, included an item assessing total family annual income. The item provided 8 ranges of annual income: (1) \$0 – \$15,000, (2) \$15,001 – \$25,000, (3) \$25,001 – \$35,000, (4) \$35,001 – \$50,000, (5) \$50,001 – \$70,000, (6) \$70,001 – \$95,000, (7) \$95,001 – \$150,000, (8) > \$150,000. The 2001 poverty guideline for a 4-person family was \$17,650 (U.S. Department of Health & Human Services). We dichotomized the family income variable so that the risk factor cut-off was annual income equal to or less than \$35,000 (twice the poverty guideline or below).

2.3.2. Measures of Protective Factors (age 5)

2.3.2.1. Mother Education: Family Demographic Assessment: An item on the family demographic assessment asked how many years of education the mother had completed. Responses in this sample ranged from grade 10 to grade 20 (8 years of education post-high school).

2.3.2.2. Mother Health: Family Demographic Assessment: An item on the family demographic assessment asked the mother to rate her health in general. The response options were: (1) Poor, (2) Fair, (3) Good, (4) Excellent. Previous research has demonstrated its construct validity among parents of individuals with intellectual disability (Chen et al. 2001; Eisenhower et al. 2013; Seltzer & Krauss 1989).

2.3.2.3. Mother Optimism: Life Orientation Test-Revised (LOT-R; Scheier & Carver 1985): The LOT-R is a six-item (plus four filler items) self-report measure of dispositional optimism, or people's generalized positive (or negative) expectancies about the future in general. Sample items include: "In uncertain times I usually expect the best," and "If something can go wrong for me, it will." Each item is rated on a 5-point scale ranging from 0 (strongly disagree) to 4 (strongly agree). Answers to the three negatively worded items are reversed and the six items are summed for scoring (possible range 0–24). Alpha for the present sample at the 60-month assessment was 0.83.

2.3.3. Measure of Outcome (age 8)

2.3.3.1. Positive Parenting: Parent-Child Interaction Rating Scale (Belsky, Crnic, & Woodworth, 1995): Parenting was coded from both naturalistic and structured observations of mother and child at child ages 5, 7 and 8. The structured observations included a number of parent, child, and dyadic behaviors that were videotaped during free play, problem-solving tasks, and clean up. Pairs of coders rated each videotape. They rated each of the behaviors on a 5-point Likert scale (1 = not at all characteristic, 5 = highly or predominantly characteristic) that considered both the frequency and intensity of the expressed affect or behavior and arrived at a consensus code. Reliability was defined as a criterion of over 70% exact agreement with the primary coder and 95% agreement within one scale point.

During the naturalistic home observations families were observed in the evening, for a 30-minute period. Coders observed for ten minutes, followed by a 5-minute scoring period. Ratings were averaged across the two ten-minute observation periods. Prior to collecting observational data in the home, coders were trained on videotapes of home observations and attended live home observations with an experienced coder until reliability was established. Reliability was defined as a criterion of over 70% exact agreement with the primary coder and 95% agreement within one scale point. After obtaining reliability, individual observers conducted home observations. To maintain reliability within and across project sites, we designated a primary coder at each site, and determined reliability regularly through videotaped and live home observations. The kappa coefficient for within-site reliability was .61 and .59 at the California and Pennsylvania sites, respectively, and kappa for across-site reliability was .64 (see also Crnic, Gaze, & Hoffman, 2005).

A number of parent, child, and dyadic behaviors were observed in both the structured and naturalistic observations. Each of the behaviors was rated on a 5-point likert scale (1 = not at all characteristic, 5 = highly or predominantly characteristic) that considered both the frequency and intensity of the expressed affect or behavior. The present study examined the dimensions of Positive Affect, Negative Affect, Sensitivity, Stimulation of Cognition, Intrusiveness and Detachment. *Positive affect* included the verbal and behavioral expression of positive regard or affect, warmth, and affection. *Sensitivity* was defined by maternal behavior that was child-centered and developmentally appropriate. *Stimulation of cognition* reflected maternal attempts to foster the child's cognitive growth at a developmentally appropriate level. *Detachment* represented marked nonresponsiveness and a lack of awareness of the child's needs. *Negative affect* referred to the verbal and behavioral expression of negative emotion, disapproval, and hostility. *Intrusiveness* referred to imposition of the mother's agenda on the child despite signals from the child that a different activity, level, or pace of interaction was needed. The dimension scale scores were converted to z scores, which were combined to create the Positive Parenting composite (Positive Affect, + Sensitivity + Stimulation - Detachment) and Negative Parenting composite (Negative Affect + Intrusiveness). These factors have been established and replicated through factor analyses conducted in several different labs (Fenning, Baker, Baker, & Crnic 2007; Aber, Belsky, Slade, & Crnic, 1999; Woodworth, Belsky, & Crnic, 1996). While positive parenting and negative parenting are two separate constructs, we believe that it is important to consider both as it more fully captures the overall picture of parenting rather than considering positive parenting alone. For example, a parent could well be high in positive affect (a positive parenting dimension) while at the same time intrusive (a negative parenting dimension). Thus, the Negative Parenting composite was subtracted from the Positive Parenting composite to create an overall score more accurately reflecting Positive Parenting for both naturalistic and structured observations. The naturalistic and structured positive parenting scores were averaged at each child age (7 and 8 years), and subsequently were averaged across the two ages. For simplicity, this parenting composite will be referred to as age 8 parenting for the remainder of the paper.

3. Results

3.1. Risk Factors and Positive Parenting

Table 2 shows the phi coefficients among the three dichotomized risk factors (0 = no risk, 1 = meets risk criterion) at child age 5 years. These were positive, but small, suggesting that they were mainly independent constructs.

Table 3 shows the point-biserial correlations between each dichotomized risk factor and the positive parenting score. Each risk factor predicted less positive parenting at ages 5 and 8. At ages 5 and 8 the three dichotomized risk factors were combined into a composite defined as “level of risk,” so that scores ranged from 0 (no risk factors present) to 3 (all three risk factors present).

3.2. Analyses at Child Age 5

At child age 5, 42.0% ($n = 68$) of children had no risk factors, 30.2% ($n = 49$) had one risk factor, 21.0% ($n = 34$) had two risk factors, and 6.8% ($n = 11$) had all 3 risk factors. Of the children with one risk factor, 32.7% ($n = 16$) had DD, 38.8% ($n = 19$) had low family income, and 28.6% ($n = 14$) had a diagnosis of ADHD or ODD. Of the children with two risk factors, 76.5% ($n = 26$) had DD, 52.9% ($n = 18$) had low income, and 70.6% ($n = 24$) had a diagnosis of ADHD or ODD. As shown in Figure 2, levels of positive parenting at age 5 differed significantly across levels of risk at age 5 $F(3, 158) = 14.04, p < .001$ ($\eta^2 = 0.21$). Tukey post-hoc comparisons of the four groups indicated that mothers of children with no risk factors ($M = 1.72$, 95% CI [0.88, 2.55]) displayed significantly higher levels of positive parenting (z scores) than mothers of children with one risk factor ($M = -0.03$, 95% CI [-1.02, 0.96]), $p < .05$, two risk factors ($M = -2.40$, 95% CI [-3.59, -1.22]), $p < .001$ and 3 risk factors ($M = -3.28$, 95% CI [-5.36, -1.20]), $p < .001$. In addition, mothers of children with one risk factor displayed higher levels of positive parenting than mothers of children with two risk factors ($p < .05$) and three risk factors ($p < .05$).

We regressed level of risk, the three protective factors (education, health, and optimism), and interactions between risk and each protective factor on positive parenting in three steps. In step 1, level of risk was entered, and in step 2 the three protective factors were entered. In step 3, the three interaction terms between risk and each protective factor were entered. Interactions between level of risk and each protective factor were not significant, so the regression analysis was rerun and reported without them. Table 4 summarizes the results of this regression. Level of risk by itself was a significant predictor of positive parenting. When the three protective factors were included in the model, higher levels of risk still predicted less positive parenting at age 5. Higher levels of optimism still entered significantly. Maternal education and health entered at trend level significance.

3.3. Analyses from Child Age 5–8

As shown in Figure 2, at child age 8 levels of positive parenting also differed significantly across levels of risk assessed at child age 5 $F(3, 158) = 8.36, p < .001$ ($\eta^2 = 0.14$). Mothers with no risk factors at child age 5 ($M = 1.15$, 95% CI [0.48, 1.81]) displayed higher levels of positive parenting at child age 8 than those with one risk factor ($M = -0.71$, 95% CI [-1.50,

0.08]), $p < .01$; two risk factors ($M = -0.45$, 95% CI $[-1.40, 0.50]$), $p < .05$; or three risk factors ($M = -2.61$, 95% CI $[-4.28, -0.95]$), $p < .001$.

The three-step regression used for age 5 variables was conducted to predict positive parenting at age 8 with risk, protective factors, and interactions at age 5. Again, interactions between level of risk and each protective factor were not significant, so the regression analysis was rerun and reported without them. Table 5 summarizes the result of these regressions. Level of child risk at age 5 by itself was still a significant predictor of positive parenting. When the three protective factors were included in the model, higher levels of risk still predicted less positive parenting at age 8 but higher levels of maternal optimism entered as a significant protective factor. Maternal health again entered at trend level significance.

3.4. Analyses of Change from Child Age 5–8

We also examined whether the risk and protective factors at child age 5 predicted change in positive parenting from age 5 to age 8. This was a more stringent test of the power of these variables, as positive parenting was moderately stable across this time period ($r = 0.53$). In step 1 we entered the positive parenting z score at age 5, in step 2 we entered the risk score at age 5, and in step 3 we entered the three protective factors assessed at age 5. The dependent variable was the positive parenting z score at age 8. Table 6 shows this regression analysis. Positive parenting at age 5 was a significant predictor of positive parenting at age 8 in all three steps. Level of risk was not a significant predictor of positive parenting at age 8 in the second and third step. Mother's optimism was a significant predictor of change in positive parenting in the third step. Education and health were not significant predictors of change in positive parenting.

4. Discussion

This study examined protective factors that could influence resilient parenting behavior in the face of risk. Risk was defined as child DD, child ADHD or ODD diagnosis, and low family income. We assessed whether each of these risk factors predicted less positive parenting in mothers when their children were 5 and 8 years old; we also assessed whether the effect on parenting behavior was cumulative when more than one risk factor was present. As predicted, each of the three risk factors at child age 5 related to less positive parenting at child age 5 and subsequently at child age 8. Moreover, the effects were cumulative. The three risk factors were combined into a risk index, and as the index rose from 0 to 3 risk factors, levels of positive parenting decreased accordingly. These results replicated findings in our previous study, where child DD, child behavior problems, and low family income were risk factors for less positive parenting when children were preschool-age.

We then hypothesized that the relationship between a higher risk index and lower positive parenting would be buffered by maternal attributes – specifically, mother education, perceived health, and dispositional optimism. We predicted that higher levels of these variables would increase the likelihood of positive (resilient) parenting in the face of child and/or economic risk. At child age 5, a higher level of optimism was a significant protective factor, and both education and health reached trend-level significance. These results

suggested that parenting may be protected when personal resources and cognitions are intact and have a positive effect in the face of adverse circumstances.

Next we examined how protective factors might influence resilient parenting behavior three years later, with consideration to the idea that resilience can be defined as positively adapting to difficult circumstances after having some time to adjust (Hill, Stafford, Ross, & Daniel, 2007). We found that higher levels of maternal optimism at child age 5 continued to be a significant protective factor for positive parenting at child age 8, and that better maternal health was a significant protective factor at trend level, above and beyond levels of risk.

Finally, we examined whether risk and protective factors measured at age 5 would relate to change in positive parenting assessed three years later. Earlier positive parenting was a strong predictor of subsequent positive parenting, and in this analysis the risk index did not predict change in positive parenting. However, the protective factor of higher levels of maternal optimism predicted positive changes.

These results as a whole suggest that maternal dispositional optimism is a particularly important variable to consider as an influence on parenting practices. Optimism was a protective factor for resilient parenting concurrently at age 5 and predictively to age 8, as well as a predictor of positive change in parenting from age 5 to age 8, above and beyond level of risk. In our previous study of resilient parenting, maternal optimism also appeared to be a significant protective factor for positive parenting at child age 3 and again at age 5. This repeated finding is consistent with other studies where parental optimism was associated with positive affect and aspects of psychological well-being in children with intellectual disabilities (Taunt & Hastings, 2002) as well as in children with autism spectrum disorders (Ekas, Lickenbrock, & Whitman, 2010).

Maternal education and health did not appear to be as protective for positive parenting in the current study as we found at earlier child ages. Education may be more important when a child is younger and a mother does not yet have real-life experience to contribute to her parenting self-efficacy. Perhaps as children develop mothers begin to feel more efficacious in their parenting abilities and knowledge due to their years of hands-on experience, as opposed to more reliance on cognitive resources and formal education. Similarly, the protective properties of maternal perceived health may decrease in salience over time as a function of a mother's increasing experience with her child. It may be that a mother's parenting behavior is more affected by her physical health during early years as a parent when she hasn't had ample opportunity to adapt her parenting behavior to any physical limitations. In order to further understand resilient parenting over the course of child development, it would be helpful for future studies to examine risk and protective factors for positive parenting across middle childhood and adolescence.

This study examined a realm that has been largely neglected in the literature. There is a plethora of evidence on the benefits of positive parenting for child development, especially in the face of risk. However, there has been little research examining what factors relate to positive parenting (Luthar, Sawyer, & Brown, 2006). The evidence from the previous study

of mothers of preschool-age children and the present study of mothers of school-age children suggest that parenting is less positive given child risk factors, but also that mother attributes can buffer this risk-poorer parenting relationship.

Some notable strengths in the methodology were the observational measure of parenting behavior and longitudinal data that allowed us to assess differences in resilient parenting at two age points and to examine the model concurrently as well predicatively. It is useful to consider the results within the context of methodological challenges and opportunities. While there was adequate variability in the number of risk factors present in this study, it would be important for future research to examine these processes in the context of a higher-risk sample (e.g., more severe developmental delay, families living in greater poverty, and mothers with less education) to enhance generalizability. It would also be desirable for future researchers to collect data from multiple reporters and methods. Other than the observational measure of parenting, this study used only mother-report and questionnaire measures.

Our current understanding of resilient parenting, though limited at this point, has implications for intervention, specifically parent support programs. Dispositional optimism emerged as a key protective factor for positive parenting across early childhood and there is evidence that higher dispositional optimism can be learned (Seligman, 2002). Parents with the risk factors identified in these studies should be targeted for such parenting interventions that shift the focus from problems to strengths and opportunities. A focus on resilient parenting directs attention toward promoting positive parent cognitions to build parenting strengths, which fits well with the current interest in more positive approaches to family support (Hill et al., 2007; Ekas et al., 2010; Guralnick, 2011).

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Highlights

- !! Child DD, child ADHD/ODD, and low family income predicted less positive parenting.
- !! Positive parenting decreased as number of risk factors increased.
- !! Maternal optimism appeared to be a protective factor for resilient parenting.
- !! Maternal education and health were not significantly protective for positive parenting.

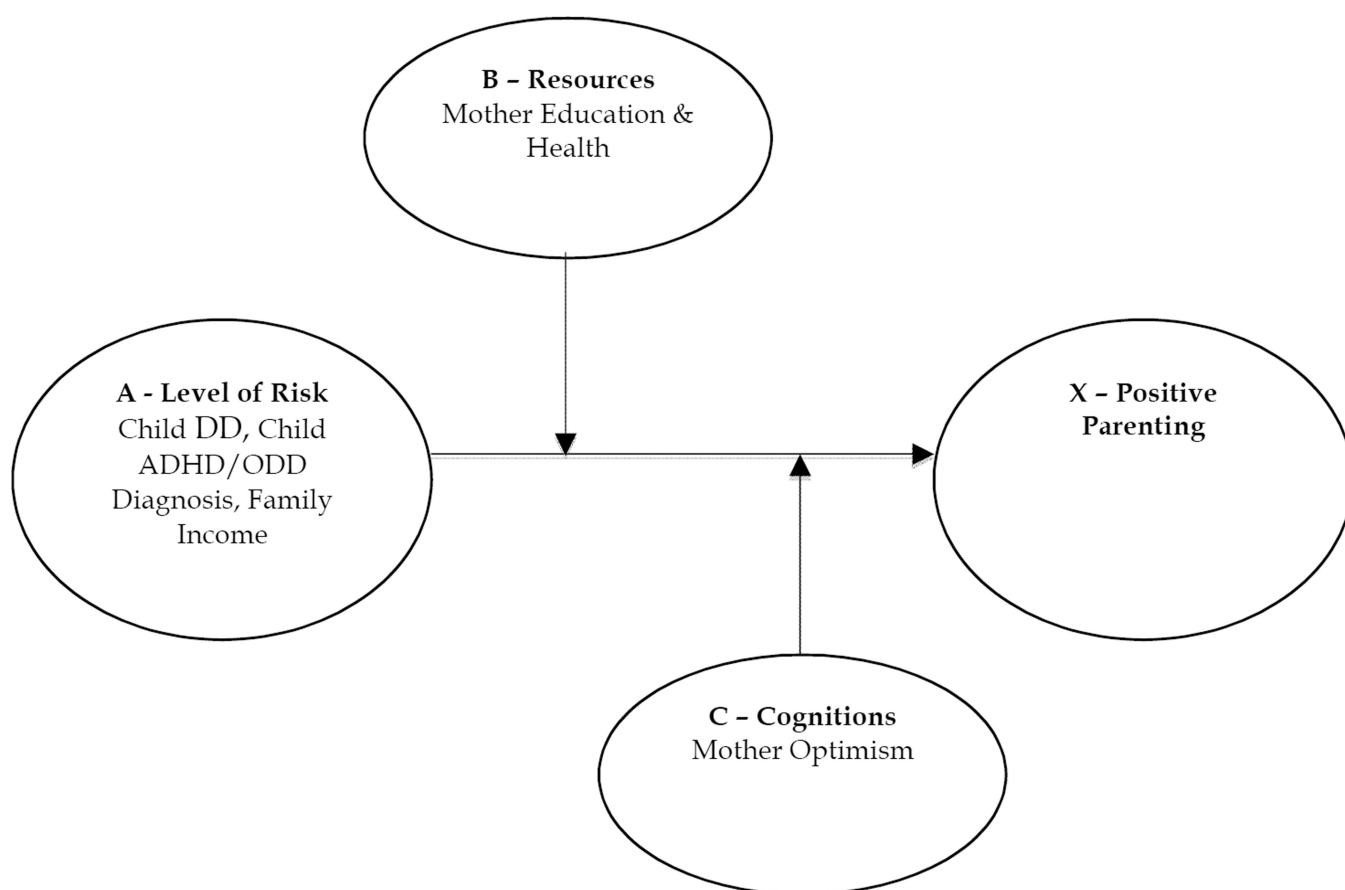


Figure 1.
Conceptual model of child risk and parenting outcome with mothers' resources and cognitions as protective factors.

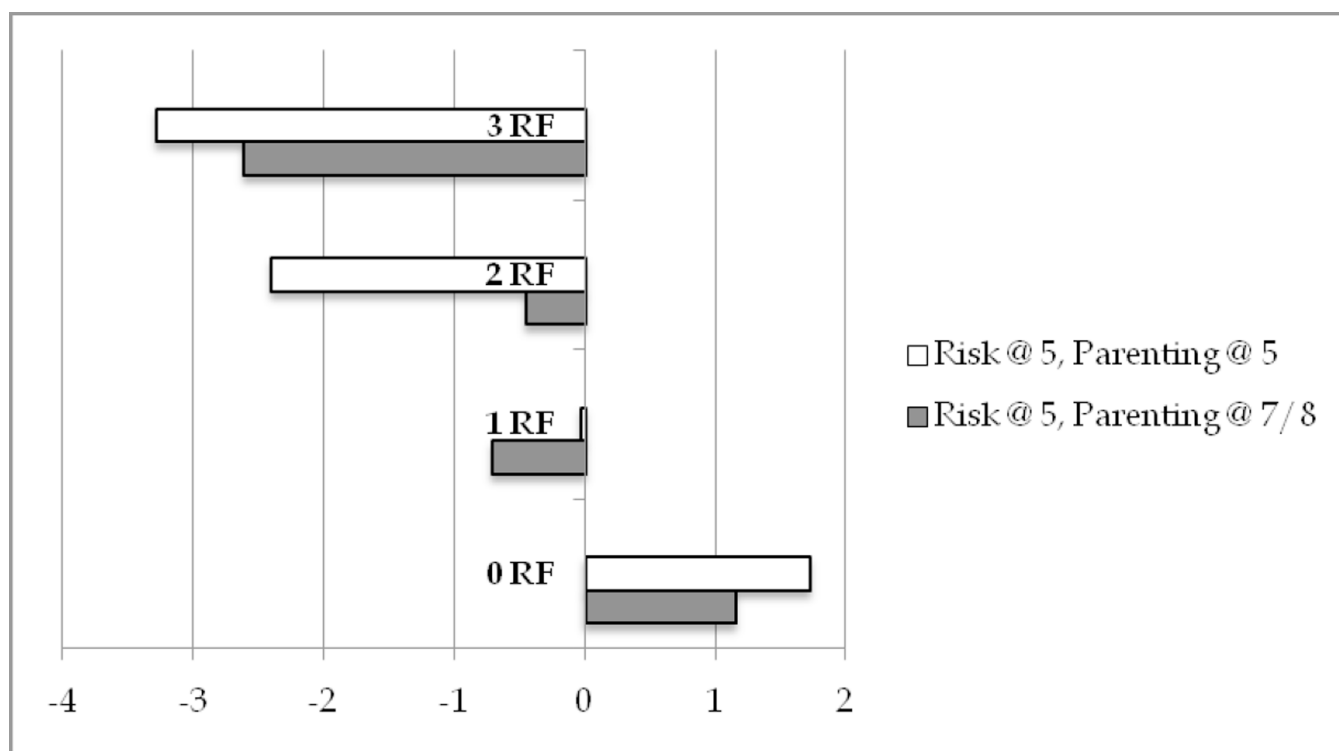


Figure 2.
Positive parenting (z scores) by risk index (number of risk factors).

Table 1Demographic Characteristics for Child, Mother, and Family at Age 5 ($N = 162$).

<i>Risk Factors</i>	
% Developmental Delay	32.7
% ADHD/ODD dx	30.2
% Low Income	29.6
<i>Child</i>	
Gender (% male)	56.0
Race/ethnicity (% Caucasian)	58.0
Stanford Binet Composite Score	89.7 (23.6)
Behavior Problems (CBCL Total)	50.1 (12.4)
<i>Mother and Family</i>	
Mother Age in Years	35.5 (6.1)
Mother Race/ethnicity (% Caucasian)	62.3
Mother Education (mean grade in school)	15.2 (2.2)
Mother Employment (%employed)	56.2
Mother Health (1–4 scale)	3.1 (0.8)
Marital Status (% married)	81.5
Mother Optimism (LOT-R)	16.2 (4.6)
Family Annual Income (%50K)	58.7

Table 2

Phi coefficients among dichotomized risk factors at age 5.

	Child ADHD/ODD dx	Family Income
Child DD/TD Status	0.31***	0.15 ⁺
Child ADHD/ODD dx		0.13 ⁺

⁺
p < .10;***
p < .001

Table 3

Point biserial correlation coefficients between dichotomized risk factors and positive parenting.

	Positive Parenting (Age 5)	Positive Parenting (Age 8)
Age 5 Child Status (0=TD, 1 = DD)	-0.35 ^{***}	-0.14 ⁺
Age 5 Child ADHD/ODD dx	-0.22 ^{**}	-0.17 [*]
Age 5 Low Income	-0.36 ^{***}	-0.38 ^{***}

⁺ $p < .10$;

^{*} $p < .05$;

^{**} $p < .01$;

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

Table 4
Concurrent predictions of Positive Parenting at Age 5 with Risk and Protective Factors at Age 5.

	B	Std. Error of B	t	ΔR ²
<i>Step 1</i>				.21***
Level of Risk (Age 5)	-1.87	0.29	-6.45***	
<i>Step 2</i>				.08**
Level of Risk (Age 5)	-1.33	0.31	-4.31***	
Education (Age 5)	0.23	0.13	1.85 ⁺	
Health (Age 5)	0.64	0.38	1.69 ⁺	
Optimism (Age 5)	0.15	0.06	2.27*	

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

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Table 5
Predictions of Positive Parenting at Age 8 with Risk, Protective Factors, and Interactions at Age 5.

	B	Std. Error of B	t	ΔR ²
<i>Step 1</i>				.11***
Level of Risk (Age 5)	-1.04	0.23	-0.33	-4.44***
<i>Step 2</i>				.12***
Level of Risk (Age 5)	-0.61	0.25	-0.19	-2.46*
Education (Age 5)	0.12	0.10	0.09	1.15
Health (Age 5)	0.57	0.30	0.15	1.89+
Optimism (Age 5)	0.16	0.05	0.25	3.17**

+ $p < .10$,
* $p < .05$;
** $p < .01$,
*** $p < .001$

Table 6
Predicting Positive Parenting at Age 8 with Positive Parenting, Risk, and Protective Factors at Age 5.

	B	Std. Error of B	β	t	ΔR ²
<i>Step 1</i>					0.28***
Positive Parenting (Age 5)	0.41	0.05	0.53	7.96***	
<i>Step 2</i>					0.01
Positive Parenting (Age 5)	0.37	0.06	0.48	6.44***	
Level of Risk (Age 5)	-0.35	0.24	-0.11	-1.50	
<i>Step 3</i>					0.05**
Positive Parenting (Age 5)	0.31	0.06	0.41	5.27***	
Level of Risk (Age 5)	-0.19	0.24	-0.06	-0.80	
Education (Age 5)	0.04	0.09	0.03	0.47	
Health (Age 5)	0.37	0.28	0.10	1.32	
Optimism (Age 5)	0.12	0.05	0.18	2.43*	

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