Early Problem Behavior Among Children From Low-Income, Mother-Headed Families: A Multiple Risk Perspective

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Early Problem Behavior Among Children From Low-Income, Mother-Headed Families: A Multiple Risk Perspective

Sheryl L. Olson, Rosario Ceballo, and Curie Park

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Examined proximal and contextual factors most strongly related to externalizing behavior among young children growing up in low-income, mother-headed families. Participants were 50 low-income single mothers and their preschool-age children who were visited twice in the home setting. Measures of proximal (low levels of supportive parenting, high levels of punitive disciplinary practices, low levels of maternal emotional well-being) and contextual (low maternal support, high levels of family stress) risk were assessed in relation to maternal reports of child externalizing behavior and an index of negative child behavior during a clean-up task. Child defiance during the clean-up task was highly associated with punitive maternal control in the same situation but had no other direct correlates. However, multiple risk factors representing both proximal and contextual variables were associated with variations in children's behavior problem scores. Mothers of children with high behavior problem scores reported lower feelings of self-efficacy in handling child care and emotional stressors, more frequent use of punitive child disciplinary practices, and lower feelings of satisfaction with the quality of their supportive resources than others. Maternal self-evaluations of coping efficacy mediated the relation between perceived support and child behavior problems, suggesting that constructs of personal control are important to represent in future studies of highly stressed parents.

Our central aim was to examine social risk factors linked with early behavioral maladjustment among young children growing up in multi-risk families. Preschool-age children have been found to manifest high levels of impulsive, aggressive, defiant, and noncompliant behavior, often referred to as “externalizing problems” (Campbell, 1995; Keenan & Wakschlag, 2000). More alarmingly, children who manifest externalizing problems during the preschool years are at risk for continuing maladjustment in the school-age years and beyond (Campbell, 1995; Keenan, Shaw, DelliQuadri, Giovanelli, & Walsh, 1998; Moffitt, 1990). However, due in part to the normative nature of self-regulation difficulties during the preschool years, roughly half of these children do not show persistent problems (Campbell, 1995). Prior research has suggested that a diverse set of social–environmental risk factors are strongly predictive of long-term continuity in early problem behavior (Campbell, Pierce, Moore, Marakovitz, & Newby, 1996; Greenberg, Speltz, & DeKlyen, 1993; Shaw & Bell, 1993). Therefore, examining the nature of these risk factors, and the processes by which they affect children’s adjustment, is a compelling research issue that has strong implications for early preventive efforts.

A large body of research has linked childhood externalizing problems with family economic hardship (Deater-Deckard, Dodge, Bates, & Pettit, 1998; McLoyd, 1998) and with single-parent family structure (Achenbach, Howell, Quay, & Conners, 1991; Duncan, Brooks-Gunn, & Klebanov, 1994; Shaw, Winslow, & Flanagan, 1999). Thus, young children growing up in poor or near-poor mother-headed families are particularly vulnerable to adverse life experiences that have been associated with the initial development and long-term continuity of childhood externalizing problems (McLoyd, 1998; Yoshikawa, 1994). However, negative developmental effects are far from inevitable and are viewed as stemming from an accumulation of co-occurring risk factors (Ackerman, Izard, Schoff, Youngstrom, & Kogos, 1999; Klebanov, Brookes-Gunn, McCarton, & McCormick, 1998; McLoyd, 1998; Sameroff, Seifer, & Bartko, 1997; Shaw, Owens, Vondra, Keenan, & Winslow, 1996). Salient risk factors have been grouped into two different categories: proximal factors that affect the moment-to-moment quality of parent–child interaction...
and contextual factors in the broader social environment that affect maternal emotional well-being and availability (Ackerman et al., 1999; Sameroff et al., 1997). As described in the following, these types of risk factors tend to co-occur and have been directly and indirectly linked with children’s behavior problems.

**Proximal Factors: Maternal Emotional Well-Being and Patterns of Caregiving**

We focus on two categories of proximal risk that have been linked to children’s behavior problems: maternal emotional well-being and maternal caregiving behaviors. Impaired maternal emotional well-being, usually defined in relation to depressive symptoms, has been associated with a broad range of negative child outcomes, which include aggressive, disruptive behavior (e.g., Downey & Coyne, 1990; Hammen, 1991). One way that maternal stress and distress may affect children’s behavioral adjustment is by increasing the frequency of irritable, harsh, or unsupportive parenting (Duncan et al., 1994; McLoyd, 1990, 1998). For example, prior research has linked poverty and economic stress with an increased tendency on the part of parents to discipline their children in a harsh, punitive manner (Dodge, Pettit, & Bates, 1994; McLeod & Shanahan, 1993; McLoyd, Jayratne, Ceballo, & Borquez, 1994). Similarly, parents who experience economic hardship tend to be less emotionally supportive and responsive to their children than others (McLoyd & Shanahan, 1993). Both patterns of caregiving behavior have been linked to high levels of child externalizing problems (Shaw, Winslow, Owens, Vondra, Cohn, & Bell, 1998; Spieker, Larson, Lewis, Keller, & Gilchrist, 1999). Most likely, these associations reflect complex transactional processes (Sameroff, 1995; Shaw & Bell, 1993). For example, noncompliant and impulsive child behavior has been shown to elicit negative emotion and strong control from parents (Barkley, 1990; Lytton, 1990), which in turn may exacerbate the child’s difficulties, further increasing the stress load of vulnerable caregivers.

**Contextual Factors: Stressful Life Events and Social Network Isolation and Strain**

Two categories of contextual factors that have been linked with child externalizing behavior include stressful life events and patterns of social network support. Poor, single mothers are more likely than others to experience frequent, stressful life changes such as moves, changes in employment, neighborhood crime, and family discord (Conger, Ge, Elder, Lorenz, & Simons, 1994; Mcloyd, 1990). High levels of negative life events have been found to be consistent predictors of social–emotional maladjustment in adults (Compas & Williams, 1990; McGonagle & Kessler, 1990) and children (Abidin, Jenkins, & McGaughey, 1992; Pryor-Brown, Powell, & Earls, 1989).

Conversely, the availability of social support has been associated with psychological well-being in low-income mothers (Hashima & Amato, 1994; Olson, Kieschnick, Banyard, & Ceballo, 1994; Simons, Beaman, Conger, & Chao, 1993). However, it cannot be assumed that the mere presence of social relationships is a protective factor: A distinction must be made between the quantity of regular social contacts (often referred to as “network density”) and their perceived quality (House & Kahn, 1985; Milardo, 1987). Satisfaction with the quality of support resources appears to be a key variable related to positive mental health among single mothers (McLoyd et al., 1994; Olson et al., 1994; Simons et al., 1993) and others under stress (Hashima & Amato, 1994). Extensive social ties, on the other hand, have been linked to high levels of stress and distress (Belle, 1982; Olson et al., 1994; Wilcox, 1986; Wilson, 1986), especially when there is heavy reliance on relatives. For example, kin networks provide material support and assistance with child care, necessities for poor, single-parent families, but may exact many emotional costs, including interference with the parenting role and personal life, reciprocal demands for help, and increased exposure to interpersonal conflict (Belle, 1982; Milardo, 1987; Wilcox, 1981).

Thus, supportive social network ties may help buffer the effects of economic hardship on maternal well-being and caregiving behavior, thereby reducing the probability of child behavior problems. To the extent that social network ties add to maternal stress (e.g., through increased social demands or conflictual contacts), the opposite outcomes may occur. Multidimensional assessments of social networks are needed, with explicit attention to potential negative social relationships.

In sum, prior research has shown that multiple domains of risk are associated with child externalizing problems and that these risk factors co-occur. Whereas most prior studies have focused on single-risk domains, it is important to understand the relative contributions and interrelations among multiple risk factors (Deater-Deckard et al., 1998; Shaw et al., 1996). Sameroff et al. (1997) proposed that an accumulation of risk factors may best explain negative developmental outcomes in high-risk families. Alternatively, one particular domain may be crucial, or single domains may be interactive in their relations with child externalizing problems (see Bates, Pettit, Dodge, & Ridge, 1998).

Impoverished single mothers with young children represent a growing subpopulation of American families. For example, more than one quarter of U.S. children live in single-parent, female-headed households (U.S. Bureau of Census, 1998). A high percentage of
these families are poor or near-poor and contain children under the age of 6 years (Li & Bennett, 1994). However, relatively few studies have focused on variations within these family constellations, even though significant individual differences in maternal and child functioning have been documented (e.g., Chase-Lansdale, Brooks-Gunn, & Zamsky, 1994; Jackson, G Yamfi, Brooks-Gunn, & Blake, 1998; Kelley, Power, & Wimbush, 1992; Olson et al., 1994). As parents and children in these family constellations experience many risks that have been linked to early appearing and chronic behavior problems, analyzing the relative contributions of different risk factors to children’s early problem behavior may help guide the development of preventive services.

Accordingly, our primary research goal was to examine the relative contributions of proximal and contextual risk factors to child externalizing problems among low-income, mother-headed families. Individual differences in proximal risk were assessed using measures of maternal emotional well-being, defined in relation to depressive symptoms and perceptions of low coping efficacy, and measures of punitive and unsupportive caregiving, assessed using the Home Observation for the Measurement of the Environment (HOME) scale and videotaped observation of mother–child interaction. Individual differences in contextual risk were assessed using measures of life stress and social network strain, augmented by demographic indicators. In turn, measures of proximal and contextual risk were correlated with one another and with two indexes of child externalizing behavior: a broad maternal report scale and an observation measure of defiant child behavior during a forced compliance task.

Major research questions were

1. How strongly do different measures of proximal and contextual risk co-occur? Based on previous research (e.g., Sameroff et al., 1997), we expected that different risk indexes would be significantly intercorrelated and that the nature of these associations would provide an important context for understanding the presence of conduct problems in young, at-risk children.

2. To what extent are different categories of risk linked with variations in child externalizing problems? Based on prior research linking multiple risk factors to child externalizing problems (e.g., Deater-Deckard et al., 1998), we expected that high levels of child externalizing behavior would be associated with high levels of maternal dysphoria and low levels of perceived coping efficacy, high levels of punitive caregiving, low levels of caregiving support (e.g., positive affect, responsiveness, teaching), and high levels of family stress and social network strain.

3. If, as expected, individual risk factors tend to co-occur, what are the relative contributions of proximal and contextual risk factors to variations in child externalizing behavior?

4. Finally, what is the nature of the interrelations between proximal and contextual correlates of child externalizing behavior? Based on previous research, we expected that the effects of maternal emotional well-being would be mediated by variations in caregiving behavior and that variations in proximal risk would mediate the effects of contextual risk on child externalizing behavior.

Method

Participants

Participants were 50 single mothers and their preschool-age children. Women ranged in age from 22 to 45 years ($M = 32$ years). Children (21 boys and 29 girls) ranged in age from 3 to 6 years ($M = 4$ years). Forty-two percent of the mothers described themselves as European American, 42% as African American, 14% as a blend of races, and 2% as Asian American. Ninety-four percent of the mothers had a high school education, and 18% were college graduates. Forty-six percent of the mothers had never been married, 48% had been married once, and 6% had been married more than once. Women had spent an average of 5½ years as single parents (range = 2 to 19 years), and 50% had been single mothers for 5 years or more. Fifty-eight percent of the families had an annual income of less than $10,000; 38% had annual incomes between $10,000 and $20,000; and 4% had incomes between $20,000 and $25,000. All participants stated that they were the primary breadwinners for their families and that they did not have “live-in” boyfriends. Fifty percent of mothers stated that their children had ongoing contact with their biological fathers (range = 4 to 52 visits per year; the other 50% reported no contact).

Families were recruited through flyers sent home with children attending three local preschool programs serving low-income families. The flyers gave a brief description of the project, promised $50 for participation, and listed a phone contact. Screening criteria included (a) maternal age over 20 years, (b) child had no serious developmental or physical disabilities, (c) mother had been single for at least 1 year, and (d) mother had no immediate plans to marry or remarry. The latter two restrictions were to avoid confounding families in the acute stages of divorce or remarriage adjustment with those who had achieved a relatively stable adjustment to single parenthood. Response rates averaged 42% across settings.
Measures

Maternal social networks. Maternal social networks were assessed using the Social Network Form (Weinraub & Wolf, 1983) administered as a structured interview covering four dimensions of actual and perceived support: (a) network density, defined by extent of social contacts (number of monthly contacts with four friends or relatives most frequently seen); (b) amount of emotional, parenting, household, and child care support; (c) satisfaction with emotional, parenting, household, and child care support (rated separately on 10-point scales, from 1 [never satisfied with quality of support] to 10 [always satisfied with quality of support]); and (d) frequency of social contacts that were described by mothers as regularly upsetting. The following summary variables were constructed for use in further data analyses: (a) network density (number of regular social contacts); (b) total amount of support (sum of individual scales; alpha = .72); (c) total satisfaction with support (sum of individual scales; alpha = .75); and (d) upsetting contacts (relative number of upsetting contacts with members of social network).

Beck Depression Inventory (BDI). Depressive symptoms were measured using the BDI (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), a 21-item self-report measure. Symptoms of dysphoria were rated on 3-point scales with higher levels indicating greater symptom severity. The questionnaire is psychometrically sound (Beck et al., 1961) and has been used extensively in research and clinical work as an index of depression severity. To ensure the most reliable index of maternal dysphoria, the BDI was administered on two separate occasions (approximately 2 weeks apart), and the average BDI score was used in data analyses.

Self-ratings of coping. Mothers rated their ability to cope with child caregiving responsibilities and with negative emotions on separate 5-point scales developed by Weinraub and Wolf (1983). Scale points ranged from 0 (rarely in control) to 5 (almost always in control). These two scales were summed into a single index, Coping Efficacy (r = .49, p < .01).

Life events checklist. A modified version of the Holmes and Raye (1967) Social Readjustment Rating Scale developed by Weinraub and Wolf (1983) was used to measure stressful life events. This is a 53-item checklist containing the 43 original life events plus 10 additional life changes relevant for single mothers. Mothers checked each event that occurred in the preceding 12 months. The total number of stressful life changes was calculated.

HOME. The preschool (ages 3 to 6) version of the HOME (Caldwell & Bradley, 1984) was used to assess variations in two dimensions of parenting behavior: supportive contact, including warmth, responsiveness, and teaching, and punitive disciplinary practices. The HOME scale involves both observation and interview procedures conducted in the child’s home. The preschool version of the HOME has been shown to have adequate internal consistency, test–retest reliability, and concurrent and predictive validity (Caldwell & Bradley, 1984). We created the following variables to represent constructs of parental support:1 Verbal Responsiveness (parent answers child’s questions verbally + parent usually responds verbally to child’s speech, r = .98); and Warmth (parent frequently holds child close every day + parent praises child’s qualities + parent kisses, cuddles, caresses child; alpha = .60). In addition, the HOME Academic Stimulation scale was used to assess individual differences in parental provision of cognitively enriching stimulation. Finally, two variables were used to assess individual differences in punitive disciplinary control: negative behavior (parent does not scold or derogate child more than once during visit + parent does not physically restrain, shake, grab, or pinch child + parent does not slap or spank child, reverse-coded; alpha = .72); and punitive discipline, assessed using a single item, the parent’s report of one or fewer episodes of physical punishment during past week (reverse-coded). These two variables were not significantly correlated, and thus they were retained as separate scales.

Clean-up task. Mother–child pairs were provided a set of age-appropriate toys and asked to play together as they normally would. Following a 10-min play session, mothers were asked to persuade the child to place the toys in a canvas carry-all, without doing it for him or her. The clean-up task was videotaped. There was no time limit for task completion.

Clean-up sessions were coded directly from videotape by two advanced female research assistants who were blind to other information about the family. Child Negative Behavior was defined by the relative frequency of the following child behaviors: defiant non-compliance (strong resistance to task, e.g., “No! I won’t do it!”); negative affective expressions (whining, expressions of irritation or anger); and negative comments (“I hate this”). Mother Negative Control was defined by the following molecular behaviors: negative comments to the child; harsh physical intervention (e.g., grabbing or slapping the child); and expressions of anger, irritability, or both. Both scales were converted to rates per minute to control for variability in

---

1The HOME Warmth and Acceptance scale suggested by Caldwell and Bradley (1984) did not have adequate internal consistency. Hence, we created reliable scales from subgroups of related items.
time of task completion between different participants. The two behavior scales were internally consistent, standardized alphas = .90 for Child Negative Behavior and .82 for Mother Negative Control, and had high levels of intercoder reliability, kappas = .90 and .88 for the child and mother scales, respectively (computed using 23 randomly selected clean-up sessions).

**Child Behavior Checklist (CBCL).** Mothers completed the CBCL (Achenbach & Edelbrock, 1983), a widely used parent report index of child behavior problems containing 113 items. Mothers were asked to respond to each item by indicating on a 3-point scale how frequently her child exhibited each different problem behavior during the preceding year. The checklist yields an overall score for symptomatic behavior, as well as two broadband scales: Internalizing (fear, shyness, withdrawal, depression) and Externalizing (aggression, disruptiveness, impulsivity). The CBCL has been found to show high levels of reliability (Achenbach, 1991) and has been extensively validated in previous research (e.g., Achenbach et al., 1991).

**Procedure**

Mothers were observed and interviewed in their homes by two female research assistants. They were visited on two occasions, approximately 2 weeks apart. During the first visit, the mother was given a brief overview of the project, then asked to sign consent forms. Next, the interviewer gathered background information about the family and administered the BDI and the preschool version of the HOME (Bradley & Caldwell, 1979). Finally, following a brief period of free play, mother–child pairs were videotaped while performing a forced compliance (clean-up) task. To avoid confounding the two measures, mother and child behaviors observed during the clean-up task were not used in the completion of HOME scale items. During the second home visit, the Social Network Form was administered as a structured interview, and mothers subsequently completed the CBCL, a second BDI, and a short, stressful life events checklist.

**Results**

**Overview**

Means and standard deviations for all variables are listed in Table 1. The initial step in data analysis was to examine relations within and between the different measures of proximal and contextual risk. Next, we correlated measures of proximal and contextual risk with variations in children’s behavior problem scores and with the index of child negative behavior derived from the clean-up task. Finally, hierarchical multiple regression analyses were used to examine the incremental contributions of different risk factors to children’s externalizing behavior and to test hypotheses regarding possible mediational relations between proximal and contextual correlates.

**Relations Between Different Measures of Risk**

The initial step in data analysis was to examine relations between different measures of proximal and contextual risk. Zero-order correlations between risk variables within each major category are reported first, followed by correlations between measures of proximal and contextual risk.

**Proximal variables.** As expected, mothers who reported high levels of dysphoria perceived themselves as low in coping efficacy; \( r = .47, p < .01 \). Surprisingly, however, variations in coping efficacy and dysphoria were unrelated to measures of maternal behavior. Measures of maternal behavior co-occurred in understandable ways. Women who expressed relatively high levels of negativity (overt punitiveness, derogatory comments) toward their children also were less responsive than others; \( r (\text{HOME Negative Behavior and Responsiveness}) = -.32, p < .05 \). In addition, mothers who

<table>
<thead>
<tr>
<th>Variable Category/Name</th>
<th>( M )</th>
<th>( SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child externalizing behavior</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Externalizing problems (CBCL)</td>
<td>10.77</td>
<td>7.55</td>
</tr>
<tr>
<td>Negative child behavior</td>
<td>2.32</td>
<td>7.39</td>
</tr>
<tr>
<td>Measures of proximal risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beck Depression Inventory (average)</td>
<td>9.59</td>
<td>7.30</td>
</tr>
<tr>
<td>Coping efficacy</td>
<td>7.61</td>
<td>9.99</td>
</tr>
<tr>
<td>HOME academic stimulation</td>
<td>4.58</td>
<td>.57</td>
</tr>
<tr>
<td>HOME verbal responsiveness</td>
<td>1.96</td>
<td>.28</td>
</tr>
<tr>
<td>HOME affection</td>
<td>2.32</td>
<td>.94</td>
</tr>
<tr>
<td>HOME negative behavior</td>
<td>2.62</td>
<td>.83</td>
</tr>
<tr>
<td>HOME punitive discipline</td>
<td>.74</td>
<td>.44</td>
</tr>
<tr>
<td>Negative control (clean-up)</td>
<td>7.20</td>
<td>9.34</td>
</tr>
<tr>
<td>Measures of contextual risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stressful life events</td>
<td>11.45</td>
<td>6.27</td>
</tr>
<tr>
<td>Network density</td>
<td>78.12</td>
<td>40.64</td>
</tr>
<tr>
<td>Total amount of support</td>
<td>167.58</td>
<td>32.48</td>
</tr>
<tr>
<td>Satisfaction with support</td>
<td>29.06</td>
<td>6.75</td>
</tr>
<tr>
<td>Negative social contacts</td>
<td>.63</td>
<td>.49</td>
</tr>
</tbody>
</table>

Note: CBCL = Child Behavior Checklist; HOME = Home Observation for the Measurement of the Environment.

*ns ranged from 47 to 50.

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2Although our focus was on examining variations in child externalizing behavior, our CBCL Externalizing and Internalizing scale scores were highly intercorrelated. High correlations between CBCL Externalizing and Internalizing scales have been reported frequently (e.g., Achenbach et al., 1991). Thus, the correlates of child externalizing behavior described in this article may not be specific to that dimension of behavioral maladjustment.
were highly responsive also expressed more affection to their children than others; \( r(\text{HOME Responsiveness and Affection}) = .43, p < .01 \). Finally, Negative Control in the clean-up situation was significantly correlated with the HOME index Negative Behavior, \( r = .25, p < .05 \), and with low levels of maternal responsiveness, \( r = -.31, p < .05 \).

**Contextual variables.** Next, we examined zero-order relations between measures of contextual risk. Not surprisingly, mothers with higher numbers of children in their households had lower levels of education than others; \( r = -.48, p < .001 \). In addition, there were meaningful convergences between measures of social network strain and life stress. Mothers who reported experiencing frequent upsetting social contacts also reported higher levels of life stress than others; \( r = -.34, p < .05 \). Mothers with relatively large social networks reported higher levels of actual social support \( (r = .33, p < .05) \) and lower levels of life stress \( (r = -.31, p < .05) \) than others. Women who reported high levels of satisfaction with the quality of their support resources also reported receiving higher levels of actual support; \( r = .33, p < .05 \). Finally, measures of demographic risk did not correlate with stressful life events or with most measures of social network support. However, mothers who reported higher levels of actual social support tended to have higher levels of education than others; \( r = .42, p < .01 \).

**Relations between measures of proximal and contextual risk.** Finally, zero-order correlations between measures of proximal and contextual risk were computed. As shown in Table 2, measures of demographic risk were unrelated to measures of proximal risk. However, proximal risk variables were significantly correlated with measures of social network strain and life stress. Mothers who reported experiencing high levels of upsetting social contacts also reported relatively high levels of dysphoria and lower levels of perceived coping efficacy and were observed to be more highly punitive and less cognitively stimulating vis-à-vis their children than others. Conversely, women who reported higher levels of satisfaction with the quality of their social supports also reported lower levels of dysphoria and higher levels of perceived coping efficacy than others. Finally, women who reported experiencing high levels of negative life events also reported higher levels of dysphoria and were observed to be more highly critical and punitive with their children (HOME Negative Behavior) than others.

### Zero-Order Correlates of Child Problem Behavior

Preliminary analyses revealed that Negative Child Behavior was not significantly correlated with CBCL Externalizing Problems and that both measures of externalizing behavior were independent of variations in the child’s chronological age (in months). Next, we examined zero-order correlations between measures of child externalizing behavior and measures of proximal and contextual risk. As shown in Table 3, children who showed high levels of negative behavior during the clean-up task also experienced higher levels of punitive, critical maternal behavior than others. However, Negative Child Behavior had no other significant correlates. Children who received high scores on CBCL Externalizing also tended to receive less cognitive stimulation and more punitive discipline from their mothers than others. Contrary to expectation, mothers who experienced relatively high levels of dysphoria (average BDI scores) did not report higher levels of child behavior problems than others. However, variations in perceived coping efficacy were significantly correlated with child externalizing problems: Mothers who reported low feelings of efficacy in handling child care and emotional stresses had children with higher behavior problem scores than others. Finally, measures of life stress were unrelated to maternal reports of child problem behavior, as were measures of network density and total amount of maternal support. However,

#### Table 2. Zero-Order Correlations Between Measures of Proximal and Contextual Risk

<table>
<thead>
<tr>
<th>Contextual Risk</th>
<th>Proximal Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BDI</td>
</tr>
<tr>
<td>Number of Children</td>
<td>.02</td>
</tr>
<tr>
<td>Maternal Education</td>
<td>-.18</td>
</tr>
<tr>
<td>Negative contacts</td>
<td>.43**</td>
</tr>
<tr>
<td>Density</td>
<td>-.15</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>-.32*</td>
</tr>
<tr>
<td>Support</td>
<td>-.20</td>
</tr>
<tr>
<td>Life stress</td>
<td>.44**</td>
</tr>
</tbody>
</table>

*Note: BDI = Beck Depression Inventory.  

\( a \)ns ranged from 47 to 50.  

\( *p < .05, **p < .01, ***p < .001. \)
Measures of contextual risk

Child Externalizing Problems

Behavior

Note: CBCL Externalizing Beta

Table 4.

Hierarchical Multiple Regression Analyses: Incremental Contributions of Proximal and Contextual Risk Factors to Child Externalizing Problems

<table>
<thead>
<tr>
<th>CBCL Externalizing</th>
<th>Beta</th>
<th>$R^2_{chg}$</th>
<th>$F_{chg}$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Maternal caregiving behavior</td>
<td>-.28</td>
<td>.16</td>
<td>4.33</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Step 2: Maternal coping efficacy</td>
<td>-.30</td>
<td>.10</td>
<td>5.08</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>Step 3: Satisfaction with support</td>
<td>-.10</td>
<td>.01</td>
<td>.45</td>
<td>ns</td>
</tr>
</tbody>
</table>

Note: CBCL = Child Behavior Checklist; ns = not significant.

incremental contribution to children’s behavior problem scores after controlling for variations in caregiving behavior. Finally, satisfaction with support was entered on the third step, to determine whether the contribution of contextual risk factors were significant after controlling for variations in proximal risk. As shown in Table 2, both maternal caregiving behavior and self-evaluations of coping made significant incremental contributions to the variance in children’s externalizing behavior. However, the incremental contribution of satisfaction with support was not significant.

Next, following guidelines suggested by Baron and Kenny (1986), we examined possible mediational interrelations between proximal and contextual variables that were associated with child problem behavior. First, we asked whether the relation between child behavior problems and maternal satisfaction with support was mediated by maternal caregiving behavior. This hypothesis could not be tested, because satisfaction with support was not significantly associated with variations in maternal caregiving behavior, the first step in evaluating possible mediational relations (Baron & Kenney, 1986). We also asked whether the effects of maternal distress on child externalizing behavior were mediated by variations in punitive, unsupportive caregiving, but we could not address this question because BDI scores were not significantly correlated with variations in child problem behavior, nor were measures of a related construct, low coping efficacy, related to variations in maternal caregiving behavior.

However, we were able to evaluate the hypothesis that relations between child behavior problems and maternal social support were mediated by maternal self-evaluations of coping efficacy. First, variations in coping significantly predicted satisfaction with social support, $R^2 = .30, F(1, 49) = 19.00, p < .0001$, and both coping efficacy and satisfaction with support were significantly related to child problem behavior. Moreover, the relation between child problem behavior and maternal satisfaction with support became nonsignificant when maternal coping was entered first, indicating a strong mediational effect.

Discussion

Our central aim was to identify proximal and contextual factors most strongly related to behavior prob-
lems among preschool-age children growing up in low-income, mother-headed families. Prior research has shown that children who manifest externalizing problems during the preschool years are at risk for persistent conduct problems (e.g., Campbell, 1995) and that the presence of social–environmental risk factors may further exacerbate the long-term risk potential of these behaviors (Campbell et al., 1996; Shaw & Bell, 1993). Thus, we examined correlates of child externalizing behaviors within this under-researched group of multi-risk families.

**Contributions of Proximal Risk Factors**

Proximal risk variables included measures of maternal emotional well-being, defined by variations in dysphoria and self-perceived coping efficacy, and measures of maternal punitiveness and support, defined by selected HOME scale variables and an index of maternal behavior during a forced compliance task. Contrary to expectation, variations in maternal dysphoria were unrelated to the level of child behavior problems. However, mothers who reported low feelings of coping efficacy did have children with higher externalizing problem scores than others. Not surprisingly, women who perceived that they were coping effectively with child care and emotional stressors also tended to report low levels of dysphoria, suggesting the possibility of an indirect association between maternal dysphoria and child behavior problems.

Previous studies of multiple-risk families have provided consistent support for a direct link between maternal depressive symptoms and child behavior problems (e.g., Leadbeater & Bishop, 1994; Speiker et al., 1999). However, in their study of impoverished mothers of toddler-age children, Shaw et al. (1996) did not find such an association. Although all of the aforementioned studies focused on poor or near-poor families, variations in specific sample characteristics, assessment procedures, or both may have contributed to inconsistencies in observed associations between maternal depression and child behavior problems. For example, some investigators have reported little association between maternal depressive symptoms and maternal caregiving behaviors except in cases of chronic or severe depression (Campbell, Cohn, & Meyers, 1995; Frankel & Harmon, 1996; Teti, Gelfand, Messinger, & Isabella, 1995). Recently, reporting from a large community sample of Australian parents, Brennan et al. (2000) found that severity and chronicity of maternal depressive symptoms predicted maternal reports of child behavior problems, although the overall effect sizes were modest. In our study, frequency and severity of mothers’ depressive symptoms were assessed twice during a 2- to 3-week period, but this time interval was insufficient for assessing issues of chronicity.

On the other hand, our findings underscored the importance of examining caregivers’ perceptions of coping efficacy in relation to the early appearance of child behavior problems. Women who received low scores on this measure tended to perceive that they were frequently “out of control” in relation to managing daily child care issues and their own negative emotions. Although low self-evaluations of coping were significantly correlated with depressive symptoms, interrelations between the two measures were only moderate. Thus, our findings suggest that constructs of personal control may be important to represent in studies of highly stressed parents and that they are not simply redundant with measures of maternal dysphoria. Indeed, in a recent study of low-income African American single mothers, McGroder (2000) found that women who experienced higher perceptions of internal control also showed more favorable patterns of caregiving and had preschool-age children with more positive developmental outcomes than others.

Finally, we expected that punitive disciplinary practices and low levels of supportive caregiving would be associated with child behavior problems. Consistent with previous studies (e.g., Dodge et al., 1994; McLoyd et al., 1994), mothers who reported using relatively frequent physical punishment with their preschoolers had children with higher behavior problem scores than others. Similarly, defiant child behavior was strongly correlated with negative maternal control during the clean-up task. The corollary hypothesis that high levels of child externalizing behavior would relate to low levels of supportive maternal behavior (e.g., Pettit & Bates, 1989; Pettit, Bates, & Dodge, 1997) was partially confirmed. Although maternal affection was unrelated to children’s externalizing problem scores on the CBCL, mothers who engaged in relatively high levels of informal teaching interactions with their preschoolers (e.g., child is encouraged to learn colors, spatial relations, numbers, patterned speech) reported lower behavior problem scores than others. In addition, mothers who engaged in high levels of negative control during the clean-up task also were observed to be less responsive to their children than others, suggesting a possible indirect link between maternal unresponsiveness and negative child behavior.

**Contributions of Contextual Risk Factors**

Contextual risk variables primarily included measures of social network strain and negative life events. Consistent with prior studies of multiple-risk families (Hashima & Amato, 1994; Jennings, Stagg, & Connors, 1991; McLoyd et al., 1994), we found that...
single mothers who were satisfied with the quality of their social contacts tended to report lower levels of child behavior problems than others. Other dimensions of support, such as the total amount of support, were not directly related to variations in child behavior problems. However, measures of life stress and social network strain were interrelated. For example, women who reported experiencing relatively frequent upsetting contacts with members of their social support network tended to endorse low self-perceptions of coping efficacy and were more highly punitive and less cognitively stimulating vis-à-vis their children than others, which in turn were directly linked to child behavior problems. These findings underscore the need for multidimensional conceptualizations of maternal support resources and for models that take into account both direct and indirect relations between parental support relationships and child behavior problems.

Contrary to expectation, mothers who experienced relatively high levels of stressful life changes were no more likely than others to report high levels of child behavior problems. We can think of three possible explanations for this nonfinding. First, the fact that all women in our sample lived in stressful circumstances may have overwhelmed the predictive power of our life stress measure. Alternatively, among highly stressed parents, measures of chronic daily stressors may be more powerful predictors of negative outcomes than discrete life events (Crnic & Acevedo, 1995; Olson & Banyard, 1993). The latter possibility would be worth exploring in further research, as relatively little is known about the impact of both chronic daily stressors and discrete life events on mental health and parenting outcomes in multiple-risk family settings (McLoyd, 1998).

Finally, relations between life stress and child externalizing behavior may be indirect. For example, women who reported high levels of negative life events also engaged in more critical and punitive behaviors vis-à-vis their preschool children, which in turn were related to child defiance during the clean-up task.

Incremental Contributions of Multiple Risk Factors

Given that multiple proximal and contextual factors were associated with increased levels of child externalizing behavior on the CBCL, hierarchical multiple regression analyses were used to examine the relative contributions of different risk factors to children’s problem behavior. Both maternal caregiving behavior and maternal self-perceptions of coping made significant incremental contributions to the variance in children’s externalizing problem scores. However, the contributions of maternal satisfaction with support became nonsignificant once the proximal risk factors were entered. Thus, in further analyses we examined the possibility that relations between social support and child problem behavior were mediated by maternal caregiving, perceptions of coping efficacy, or both. Contrary to the hypothesis that contextual risk may be related to child behavior problems because it has a disruptive effect on parenting (e.g., Campbell et al., 1996), relations between child behavior problem scores and maternal social support were not mediated by variations in punitive disciplinary practices or supportive caregiving. However, maternal self-evaluations of coping efficacy did mediate the relation between experienced support and child behavior problems. This finding suggests that the availability of high-quality support may bolster women’s perceptions of self-efficacy. Alternatively, characteristics of individual mothers may affect the manner in which they construct, maintain, and appraise their network ties (e.g., Clark & Reiss, 1988; Olson et al., 1994). For example, women with high feelings of self-efficacy may be more successful than others in engaging and maintaining supportive relationships.

Limitations

Several features of this study potentially limit the generalizability of our findings. First, our study was relatively small and exploratory in nature, featuring a data-driven analytic approach. Larger samples of multi-risk families would permit causal modeling approaches to hypothesis testing and examination of potentially critical moderating variables that could have a strong effect on the pattern of findings. For example, correlates of early externalizing behavior have been found to be differentially patterned for African American and European American families (Deater-Deckard et al., 1998) and for boys and girls (Shaw et al., 1998).

An additional limitation concerned the cross-sectional nature of our sample. Correlational relations revealed in our data do not support inferences about direction of causality: As stated earlier, the most likely scenario is that complex transactional interactions exist. Longitudinal studies are needed to examine the temporal sequencing of risk factors in relation to early onset conduct problems.

Moreover, the majority of mothers in our sample had achieved at least 12 years of formal schooling, which may limit comparisons with less educated samples of low-income mothers. Prior published reports on the parenting behavior of single, low-income mothers have revealed considerable variability in maternal educational status. For example, Jackson et al. (1998) studied a sample of African American welfare recipients in New York City. The majority of these parents had at least a high school education, and 70% had achieved some education beyond the high school level. In contrast, in Shaw et al.’s (1998) study of low-income mothers of infants who lived in the greater Pittsburgh

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area, only 76% had achieved a high school education. These discrepancies indicate that maternal educational levels may be quite variable among samples of economically disadvantaged parents, suggesting the need for caution when generalizing findings across studies.

Similarly, our findings may not be generalizable to impoverished single mothers living in large urban areas. Women living in inner-city environs face a variety of stressors that differ from those of our denizens of mid-size college communities, including grossly inadequate housing and dangerous neighborhoods (e.g., Dubrow & Garbarino, 1989).

Clinical Implications

Increasingly, clinical strategies for preventing the stabilization of childhood conduct problem have involved multisystemic interventions (e.g., Kazdin, 1993; Conduct Problems Prevention Research Group, 1992). By affirming that early onset externalizing behavior is embedded in a complex web of interrelated parental and familial risks, our data clearly support the need for broad and multisystemic prevention programs. In addition, our findings demonstrate the importance of mothers’ perceptions of personal coping efficacy as possible mediators of other stressful conditions. Thus, within a multisystemic program, it may be fruitful to highlight interventions that enhance caregivers’ perceptions of personal efficacy and control.

Summary

In summary, we identified proximal and contextual risk factors associated with child externalizing behavior among preschool-age children living in low-income, mother-headed families. Despite the growing number of poor or near-poor mother-headed families with young children, relatively few studies have focused on variations in parent and child functioning within these family constellations. As expected, multiple risk factors representing both proximal and contextual variables were associated with variations in children’s externalizing behavior. For example, children with high externalizing problem scores on the CBCL tended to have mothers who reported low feelings of self-efficacy in handling child care and emotional stressors, relatively frequent use of punitive child disciplinary practices, and low feelings of satisfaction with the quality of their supportive resources. Furthermore, results indicated that maternal self-evaluations of coping efficacy mediated the relation between perceived support and child behavior problems, suggesting that constructs of personal control are important to represent in future studies of highly stressed parents. Similarly, defiant child behavior during a clean-up task was strongly associated with negative maternal control, which in turn was indirectly related to other measures of proximal and contextual risk. These data strongly underscore the need for multiple-risk conceptualizations of child externalizing behavior, with explicit attention to direct and indirect associations between relevant risk factors and variations in child adjustment.

References


EARLY PROBLEM BEHAVIOR


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