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Parental Depression and Economic Disadvantage: The Role of Parenting in Associations with Internalizing and Externalizing Symptoms in Children and Adolescents

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Abstract

This study examined the effects of parental depression symptoms, economic disadvantage, and parenting behaviors in 180 children and adolescents of depressed parents (ages 9–15 years-old). Analyses revealed that while parental depression symptoms, economic disadvantage, and disrupted parenting behaviors were related to children's internalizing and externalizing symptoms, disrupted parenting (e.g., intrusive, neglectful parenting) accounted for the association of parental depressive symptoms and economic disadvantage with children's symptoms. This study provides evidence that disrupted parenting may be a common or shared process through which both parental depression and economic disadvantage are associated with children's internalizing and externalizing problems.

Keywords

Parental depression; Economic disadvantage; Parenting; Child/adolescent; Psychopathology

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Introduction

Two powerful sources of risk for psychopathology in children and adolescents are a family-history of psychopathology, especially a family history of depression, and economic disadvantage (e.g., England and Sim 2009; Flouri et al. 2010). These two sources of risk are characterized by increased levels of chronic stress for children and adolescents and co-occur in many families. However, these risk processes have been examined relatively independent of one another. The goal of the current study is to address the individual and relative contributions of parental depression, family SES, and neighborhood economic disadvantage for internalizing and externalizing problems in young adolescents and the possible role of disrupted or impaired parenting as a factor that may account for these associations.

Substantial evidence shows that parental depression puts children and adolescents at increased risk for internalizing and externalizing psychopathology (e.g., England and Sim 2009; Goodman et al. 2011). A meta-analysis by Goodman et al. (2011) demonstrated that maternal depression is related to higher levels of internalizing, externalizing, general psychopathology and negative affect/behavior as well as lower levels of positive affect and behavior in children and adolescents. One mechanism through which depression in a parent increases child/adolescent risk is the family environment associated with impaired or disrupted parenting (e.g., Hammen 2002). Depression contributes to increased stressful interactions between parents and their children, in part due to disrupted parenting by depressed parents (e.g., Brennan et al. 2003; Howard and Medway 2004; Lovejoy et al. 2000). Depressed parents are more likely to exhibit both withdrawn behaviors (e.g., avoiding interaction with the child, emotional and behavioral withdrawal) and intrusive behaviors (e.g., irritability, over-involvement) than parents who have not experienced depression (e.g., Jaser et al. 2008). Depressed parents often vacillate between these types of behavior in an unpredictable pattern that may exacerbate the effects of either of these behaviors alone (e.g., Langrock et al. 2002; Jaser et al. 2005). Further, parents exhibit this disrupted parenting even outside of a depressive episode, suggesting that children of parents with a history of depression may be chronically exposed to these behaviors (e.g., Jaser et al. 2005). Withdrawn and intrusive parenting behaviors are related to greater symptoms of internalizing and externalizing psychopathology in children and adolescents (e.g., Jaser et al. 2005).

Economic disadvantage is a second significant source of risk for internalizing and externalizing problems during childhood and adolescence. Indicators of economic disadvantage have been measured at different levels, including measures of socioeconomic status based on a specific family's income and education as well as contextual and environmental variables such as the economic conditions of the neighborhood in which a family lives (e.g., Leventhal and Brooks-Gunn 2000; Wardle et al. 2002). Economic disadvantage, at both a family-level and a neighborhood level, has effects on child and adolescent psychological functioning. For example, Slopen et al. (2010) found that internalizing and externalizing symptoms were significantly more prevalent among children from poor households as compared to the non-poor households. Neighborhood economic disadvantage is associated with stressors such as poorer neighborhood quality, exposure to neighborhood violence, frequent moves and transitions, discrimination, substandard housing, noise, crowding, and family turmoil (e.g., Evans and English 2002; Hanson and Chen 2007; Wadsworth and Compas 2002; Wadsworth et al. 2008). Economic stressors in a family build on one another and lead to increasing amounts of stress in a family and include "the day-to-day hassles that arise when living with less money than one needs" (Wadsworth et al. 2008; p. 157). These studies suggest that it is important to measure economic disadvantage at both the neighborhood and family level.

Studies have also demonstrated that economic disadvantage affects children through its effects on family processes, specifically disrupted parenting and greater family conflict. Family economic disadvantage disrupts parenting behaviors and parents' availability to their children, and economic difficulties and associated disruptions in families have adverse effects on children's development (e.g., Conger and Donnellan 2007; Wadsworth and Achenbach 2005). A meta-analysis by Grant et al. (2003) examined 46 studies that reported associations between poverty, parenting, and child and adolescent psychopathology. Overall, this meta-analysis supported a model that disrupted parenting mediates the relation between poverty and psychopathology (both internalizing and externalizing symptoms) in children and adolescents.

Furthermore, Flouri et al. (2010) examined the familial factors related to family-specific economic variables as well as neighborhood economic disadvantage. Flouri et al. (2010) found that while neighborhood economic disadvantage was associated with child difficulties (e.g., hyperactivity, emotional symptoms, conduct problems, peer problems) via family characteristics (e.g., family adversity, maternal distress, disrupted parenting), family-level economic disadvantage was more directly related to children's difficulties via its impact on the children's development. The stress associated with economic disadvantage and parental depression is compounded by their co-occurrence in many families. Parental depression affects children in low-income families disproportionately, with 25 % of families living at or below the poverty level experiencing depression, compared with just 11 % of families living at double or higher the poverty level of income (Center on the Developing Child at Harvard University 2009). Parents living in economic disadvantage are at higher risk for depression, in part due to the stress associated with economic problems (Everson et al. 2002). For example, in a study of children of depressed mothers in low-income families, children had elevated rates of psychopathology across all psychiatric disorders including depression, separation anxiety, and oppositional defiant disorder when compared to children in low-income families without a depressed mother (Feder et al. 2009). The findings of Feder et al. in the context of previous studies demonstrating economic disadvantage alone as an independent risk factor for child psychopathology, suggest that children of depressed parents who are also living in economic disadvantage may be a particularly vulnerable group. The current study examined the association between economic disadvantage, parental depression, and disrupted parenting with internalizing and externalizing symptoms in children and adolescents. We hypothesized that: (1) parental depressive symptoms, family socioeconomic status (SES; family income and parental education), neighborhood economic disadvantage (e.g., lower income, lower education, single mother households, crowding), and disrupted (withdrawn and intrusive) parenting will be related to child internalizing and externalizing symptoms; (2) parental depression symptoms, family SES, and neighborhood economic disadvantage will be independently related to child internalizing and externalizing symptoms; and (3) disrupted parenting will account for the association of parental depressive symptoms, family SES, and neighborhood economic disadvantage with child internalizing and externalizing problems.

Method

Participants

Participants included 180 children and their parents with a history of current or past MDD from the areas in and surrounding Nashville, Tennessee and Burlington, Vermont. Children enrolled in the study ranged from 9 to 15-years-old and included 89 girls (mean age = 11.66, SD = 2.07) and 91 boys (mean age = 11.26, SD = 1.92). Seventy-four percent of children were Euro-American, 12.8 % African-American, 3.3 % Asian American, 1.7 % Hispanic American, and 7.2 % mixed ethnicity. While many of these families participated with more than one child, we randomly selected one child per family.

Parents with a positive history of current or past MDD within the lifetime of their child enrolled in the study included 160 mothers (mean age = 41.16, SD = 7.17) and 20 fathers (mean age = 48.30, SD = 7.50). Parents' level of education included less than high school (5.6 %), completion of high school (8.9 %), some college (30.6 %), college degree (31.7 %), and graduate education (23.3 %). Eighty-two percent of target parents were Euro-American, 11.7 % African-American, 2.2 % Hispanic-American, 1.1 % Asian-American, 0.6 % Native American, and 2.2 % mixed ethnicity. Annual family income ranged from less than $5,000 to more than $180,000, with a median annual income in the range of $25,000–39,000. Sixty-one percent of parents were married, 21.7 % were divorced, 5.0 % separated, 10.6 % had never married, and 1.1 % were widowed.

Measures

Parental Depressive Symptoms—Two measures of parental depressive symptoms were employed. First, parents' current depressive symptoms were assessed with the Beck Depression Inventory-II (BDI-II), a standardized and widely used self-report checklist of depressive symptoms with adequate internal consistency, reliability and validity (Beck et al. 1996). Internal consistency of the BDI-II total score for the current sample was $\alpha = 0.94$. Second, the Structured Clinical Interview for DSM (SCID; First et al. 2001), a semi-structured diagnostic interview, was used to assess current and previous episodes of MDD according to DSM-IV criteria (American Psychiatric Association 1994). Interrater reliability, calculated on a randomly selected subset of these interviews, indicated 93 % agreement ($\alpha = 0.71$) for diagnoses of MDD. The number of current MDD symptoms on the SCID was used as a second index of parents' current depressive symptoms. Scores on the BDI and symptoms of MDD on the SCID were combined to create a composite parental depressive symptoms index.

Family Socioeconomic Status—Family socioeconomic status was assessed by parent report of household income and parent education. Parents reported their annual family income in one of 9 categories: (1) less than $5,000, (2) $5,000–$9,999, (3) $10,000–$14,999, (4) $15,000–$24,999, (5) $25,000–$39,000, (6) $40,000–$59,000, (7) $60,000–$89,999, (8) $90,000–$179,99, and (9) $180,000 or more. Parents reported their educational attainment in one of 5 categories: (1) less than high school, (2) high school or equivalency exam, (3) some college or technical school, (4) college graduate- 4 year degree, and (5) any graduate education. Household income and parental education were significantly correlated ($r = 0.22$, $p < .01$); thus, these variables were combined to create a composite family socioeconomic status (SES) index.

Neighborhood Economic Disadvantage—Neighborhood economic disadvantage was measured by gathering census data (US Census 2000) based on participants' zip codes. Based on previous work on economic disadvantage (Santiago et al. 2010), census variables used in these analyses included levels of poverty (as indicated by percentage of families under the poverty level), unemployment (as indicated by percent of families in the neighborhood who were unemployed), adult presence in the home (percentage of neighborhood households with mothers, no husband present), educational attainment (percentage of adults in neighborhood who did not graduate from high school), residential mobility (percentage of renters and percentage of families living in a different household than 5 years prior), crowding (number of occupants per rooms, median number of rooms in a household), and median family income.

In this sample, mean neighborhood percentage of the families under the poverty level was 31.70 % (SD = 15.38), mean level of neighborhood unemployment rate was 3.98 % (SD = 7.36, range = 0.80–63.3), a mean of 11.03 % (SD = 5.55) households with mothers and no

husband present, a mean of 15.06 % (SD = 9.28) households with education levels below high school graduation, a mean of 31.70 % (SD = 15.38) households occupied by renters, and a mean of 46.06 % (SD = 7.95) families who had a moved in the last 5 years had. The median number of rooms was 5.60 (SD = 0.77) and the percentage of households with 1.51 or more occupants per room had a mean of 0.81 % (SD = 0.88). Neighborhood median family incomes was $55,525 (SD = 16,925). These measures were combined (with appropriate variables reverse coded) to create a composite neighborhood economic disadvantage variable.

Disrupted Parenting Behaviors—Disrupted parenting behaviors were assessed by both parent and child-report, using 12 stressor items on the Parental Depression Version of the Responses to Stress Questionnaire (RSQ; Connor-Smith et al. 2000; Jaser et al. 2005). These disrupted parenting behaviors included parental withdrawal (e.g., "My Mom does not listen to me, or pay attention to events in my life") and parental intrusiveness (e.g., "My mom is upset, tense, grouchy, angry, and easily frustrated"). Previous studies have demonstrated that these parenting behaviors are associated with parental depressive symptoms, whether past (and in the child's lifetime) or current (e.g., Jaser et al. 2005, 2008; Langrock et al. 2002). For the sake of brevity, we will refer to the behaviors associated with parental depressive symptoms as "disrupted parenting behaviors." Internal consistency for disrupted parenting for the current sample were $\alpha = 0.84$, and $\alpha = 0.79$ for child and parent-reports, respectively. Parent and child reports of disrupted parenting were significantly correlated ($r = 0.29$, $p < .01$ and $r = 0.33$, $p < .01$ for withdrawn and intrusive behaviors, respectively); thus, these reports were combined to create a composite "disrupted parenting" index.

Child/Adolescent Internalizing and Externalizing Symptoms—Children's internalizing and externalizing symptoms were assessed using the Child Behavior Checklist (CBCL; Achenbach and Rescorla 2001) and the Youth Self-Report (YSR; Achenbach and Rescorla 2001). The CBCL includes a 118-item checklist of problem behaviors that parents rate as not true (0), somewhat or sometimes true (1), or very true or often true (2) of their child in the past 6 months. Adolescents completed the YSR, the self-report version of the CBCL for adolescents ages 11 to 18-years-old. Reliability and validity of the CBCL and YSR are well established (Achenbach and Rescorla). Internal consistency for the scales used in this study ranged from $\alpha = 0.84$ to 0.94 for the CBCL and $\alpha = 0.84$ to 0.90 for the YSR. Nine and 10 year-old children completed the YSR to allow for complete data on all measures. The internal consistency for the YSR scales was adequate with this younger age group in the current sample (all alphas ≥0.80).

Normalized T scores were calculated for adolescent symptoms for descriptive purposes for comparison to the normative sample for the CBCL and YSR. Raw scores were used in analyses because of a loss of some variance with T scores (i.e., in some instances more than one raw score corresponds to the same T score). Parents' and children's reports of internalizing and externalizing symptoms were significantly correlated ($r = 0.42$, $p < .01$ and $r = 0.47$, $p < .01$, respectively). Therefore, parent and child reports were combined to form composite measures of internalizing and externalizing symptoms that were used in all analyses.

Procedures—Families were recruited to participate in a family-based cognitive-behavioral randomized intervention trial aimed at preventing mental health problems in children of depressed parents. All data used in the current study were collected during the baseline assessment and prior to randomization into the intervention trial. All procedures in the study were approved by the Institutional Review Boards at two universities that were the sites for this study.

Following an initial phone interview to screen for eligibility for the intervention study (e.g., age of child), families completed baseline assessments, which included structured clinical interviews with the parent (SCID; First et al. 2001) and the child (KSADS; Kaufman et al. 1997) and questionnaires completed by parents and children. Structured clinical interviews were conducted in psychology laboratory settings by trained doctoral students in clinical psychology (see Compas et al. 2009, for details on training). Families were screened to determine eligibility, primarily to discern that at least one parent in the family had experienced at least one major depressive episode or dysthymia during the child's lifetime. If two parents met criteria for MDD, the parent who initially contacted the study was designated as the target parent.

The following parental diagnoses or characteristics were excluded from the sample: Bipolar I, Schizophrenia, or Schizoaffective disorder. If a parent met criteria for current major depression accompanied by significant impairment (established by a Global Assessment of Function, GAF, score at or below 50) or acute active suicidal ideation, or drug or alcohol use disorders accompanied by significant impairment (GAF ≤ 50), the family was placed on hold temporarily and then re-assessed at a later time. If suicidal ideation or impairment had improved at time of re-assessment, the family was then eligible to participate. Child diagnoses that were excluded were intellectual disability, pervasive developmental disorders, alcohol or substance use disorders, current Conduct Disorder, Bipolar disorder, and Schizophrenia or Schizoaffective disorder. Additionally, if a child in the family met criteria for current depression or was acutely suicidal, the family was placed on hold, and the same re-assessment procedure was applied as described above (14.3 % of children in the study had experienced a past episode of depression but were not currently depressed and were retained in the sample). In families with more than one child in the targeted age range, one child was randomly selected for inclusion in the analyses to avoid possible problems of non-independence of children within the same family.

Data Analyses—Descriptive statistics are reported on family SES, neighborhood economic disadvantage, disrupted parenting, children's internalizing problems, and children's externalizing problems. The first hypothesis was tested with bivariate correlations. For the second hypothesis, linear regression analyses were used to compare the roles of parental depressive symptoms, family SES, and neighborhood economic disadvantage in predicting children's internalizing and externalizing symptoms. For the third hypothesis, linear regression analyses were utilized to examine the relative contributions of parental depression symptoms, family SES, neighborhood economic disadvantage, and disrupted parenting in predicting children's internalizing and externalizing symptoms. Baron and Kenny's (1986) four step process for testing mediation was followed; however, estimates of mediation are constrained by the cross-sectional nature of the data (Maxwell and Cole 2007).

Results

Descriptive Statistics

Means and standard deviations for demographic variables and measures of parents' depressive symptoms, family SES, neighborhood economic disadvantage, disrupted parenting, children's internalizing symptoms, and children's externalizing symptoms are reported in Table 1. Parent report of child internalizing symptoms on the CBCL yielded a mean *T* score of 59.38 (SD = 10.62). Child self-report of internalizing symptoms on the YSR yielded a *T* score of 54.62 (SD = 11.53). These scores indicate that children's mean internalizing problems scores were approximately one-half to one standard deviation above the normative means on the CBCL and YSR. Parent report of child externalizing symptoms

on the CBCL yielded a mean *T* score of 54.51 (SD = 10.53). Child self-report of externalizing symptoms on the YSR yielded a mean *T* score of 49.58 (SD = 10.20). These scores are similar to those reported for children of depressed parents in other studies, including the STAR*D trial (Foster et al. 2008). These data indicate that, as expected, this is an at-risk sample as reflected by moderately elevated mean *T* scores.

Parents' depressive symptoms, as reported on the BDI-II (Beck et al. 1996), yielded a mean of 18.97 (SD = 12.41) that corresponds to mild to moderate depressive symptoms based on the BDI-II norms. Out of 9 possible symptoms of current major depression on the SCID, parents met threshold criteria for a mean of 2.64 symptoms, with a standard deviation of 2.60, for current depression and 6.17 symptoms, with a standard deviation of 2.34, for past depressive episodes. All parents met criteria for either a past or current episode of depression, with 26.7 % of parents meeting criteria for a current depressive episode at the time of data collection.

Hypothesis 1—The associations between parental depressive symptoms, family SES, neighborhood economic disadvantage, disrupted parenting, internalizing symptoms, and externalizing symptoms are reported in Table 2. The composite of parental depressive symptoms (SCID threshold symptoms and BDI scores) was significantly related to disrupted parenting ($r = 0.33$, $p < .001$). Family SES and neighborhood economic disadvantage were significantly correlated ($r = 0.45$, $p < .01$). Family SES was correlated with parents' depressive symptoms ($r = 0.29$, $p < .01$) and disrupted parenting ($r = 0.28$, $p < .01$), whereas neighborhood economic disadvantage was correlated with parental depressive symptoms ($r = 0.15$, $p < .05$) but not with disrupted parenting. All four predictors were significantly correlated with children's internalizing and externalizing symptoms (r's range from 0.20 to 0.53, all p's < .05).

Hypothesis 2—To test the relative association of parental depressive symptoms and economic disadvantage with children's internalizing and externalizing symptoms, linear regression analyses were conducted. Parental depressive symptoms ($\beta = 0.23$, $p < .01$) and family SES ($\beta = 0.18$, $p < .05$) remained significant predictors of children's internalizing symptoms when both were entered into a regression, but neighborhood economic disadvantage was no longer a significant predictor (see step 2 in Table 3). Only parental depressive symptoms ($\beta = 0.24$, $p < .01$) remained a significant predictor of children's externalizing symptoms, however (see step 2 in Table 4).

Hypothesis 3—To examine the relative contribution of disrupted parenting behaviors within the context of parental depression and economic disadvantage, linear regression analyses were utilized. When all predictors were entered into an equation together, only disrupted parenting behaviors remained significant for both internalizing ($\beta = 0.43$, $p < .001$) and externalizing symptoms ($\beta = 0.44$, $p < .001$) (see step 3 in Tables 3 and 4).

Discussion

Living with a parent with depression and exposure to economic disadvantage are sources of significant stress for millions of children and adolescents in the United States. Parental depression results in increased risk for psychopathology, including both internalizing and externalizing symptoms, in children and adolescents through exposure to disrupted parenting behaviors, negative parent–child interactions, and chronically stressful family environments. Similarly, economic disadvantage is related to increased risk for internalizing and externalizing symptoms in children and adolescents through economic strain, family stress, and additional stressors associated with economic disadvantage. The independent and

relative association of these sources of stress with children's internalizing and externalizing symptoms was examined in the current study.

The first hypothesis examined the association of parental depression symptoms, family SES, neighborhood economic disadvantage, and disrupted parenting with children's internalizing and externalizing symptoms. Correlations among the central constructs in this study revealed significant associations among parental depression symptoms, disrupted parenting, family SES, and neighborhood economic disadvantage. Each of the predictors was significantly correlated with higher levels of children's internalizing and externalizing symptoms. These results are consistent with previous findings that stress related to parental depression and economic disadvantage leads to an increased risk for psychopathology (e.g., Miller et al. 2007). Further, these sources of stress were also moderately inter-correlated, suggesting that children exposed to economic disadvantage were also faced with higher levels of parental depression and disrupted parenting. The hypothesis that neighborhood economic disadvantage would be related to disrupted parenting was not confirmed, however, and is not consistent with previous research. This may be the result of recruiting families based on parents' history of depression rather than recruiting families based on economic disadvantage as has been done in previous studies.

The second hypothesis examined the relative contributions of parental depression symptoms and economic disadvantage to children's internalizing and externalizing symptoms, respectively. When examined simultaneously in regression analyses, only parental depressive symptoms and family SES were associated with children's internalizing symptoms and only parental depressive symptoms were related to externalizing symptoms. For the third hypothesis, we examined the relative contributions of disrupted parenting along with parental depressive symptoms, family SES, and neighborhood economic disadvantage. As noted above, Baron and Kenny's (1986) four step process for testing mediation was followed; however, our ability to test mediation was constrained by the cross-sectional nature of the data (Maxwell and Cole 2007). Higher levels of parental depressive symptoms, disrupted parenting, neighborhood economic disadvantage, and family SES were all correlated with internalizing and externalizing symptoms. However, when all predictors were entered together, only the disrupted parenting behaviors remained significant, suggesting that stressful family dynamics such as intrusive or withdrawn parenting, accounted for the effects of the other sources of stress on children's symptoms.

It is noteworthy that the patterns of associations and prediction by parental depression symptoms, family SES, neighborhood economic disadvantage, and disrupted parenting was similar for both internalizing and externalizing symptoms, which suggests that although these children are at particularly high-risk for depression, the stressors associated with having a parent with depression and economic disadvantage are not specific to risk for internalizing problems. These findings are consistent with previous research showing parental depression and economic disadvantage as risk factors for various forms of psychopathology in children and adolescents (e.g., Grant et al. 2003; England and Sim 2009; Slopen et al. 2010).

The results from this study provide support that the effects of parental depression and economic disadvantage may be driven primarily by their associated disrupted parenting. Research has demonstrated robust findings for the effects of parental depression on children's outcomes through a variety of mechanisms (e.g., Garber and Martin 2002) and the current findings corroborate previous findings that the impact of parents' depressive symptoms themselves are accounted for by the parents' treatment of the child (i.e., their intrusive or withdrawn behaviors; e.g., Jaser et al. 2008). Similarly, while neighborhood economic disadvantage has been demonstrated in the literature to have adverse effects on

children (e.g., Evans and English 2002), the current findings suggest these effects are accounted for by disrupted parenting within the family. These results provide further evidence that a parent's experience of depression and neighborhood economic disadvantage impact children through affecting their more immediate experiences (e.g., their parent's behaviors towards them, their own family's struggles with poverty; Grant et al. 2003; Repetti et al. 2009).

The current study has several limitations that can be addressed in future research. First, this study was cross-sectional, which prevented conducting mediation analyses of the temporal relations among the constructs of interest (Maxwell and Cole 2007). The current findings need to be replicated and extended through longitudinal studies examining these constructs, which would provide an opportunity for mediational analyses in the relation between chronic stress related to parental depression and economic disadvantage and poorer psychological outcomes. Second, the exclusion criteria that were used to select parents and children for inclusion in the subsequent prevention trial may have limited the generalizability of the sample (e.g., the exclusion of children with conduct disorder). Third, one possible mechanism by which stress including those related to having a parent with depression or being economically disadvantaged, may be associated with poorer outcomes in children through the impairment of children's ways of coping with stress related to parental depression and/or economic disadvantage. The association of children's internalizing and externalizing symptoms with stress associated with parental depression symptoms and economic disadvantage may be accounted for at least in part by the ways that children cope with these sources of stress (Jaser et al. 2005; Langrock et al. 2002). Finally, parenting behaviors in this study were assessed using both child and parent report. Previous research would benefit from more comprehensive evaluation of parent behaviors, such as the use of direct observation.

These findings also suggest possible future directions for intervention with families faced with depression and economic disadvantage. Preventing symptoms in at-risk children and adolescents can be approached by either (a) decreasing the risk factors (in this case, parental depression symptoms or economic disadvantage) or (b) strengthening the individual exposed to such stressors (e.g., Compas et al. 2009, 2010). In addition to treating a parent's depression, the current findings suggest that another avenue for intervention is changing parenting behaviors. This study provides evidence that disrupted parenting is an important and feasible target for intervention with families dealing with parental depression and economic disadvantage.

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Table 1

Demographic statistics, parental depressive symptoms, and children's internalizing and externalizing symptoms

	Children (*n* = 180)	Parents (*n* = 180)
Demographics		
Age	11.46 (2.00)	41.96 (7.53)
Euro-American	74.4 %	82.2 %
African American	12.8 %	11.7 %
Asian American	3.3 %	1.1 %
Hispanic American	1.7 %	2.2 %
Native American	0.6 %	0.6 %
Mixed ethnicity	7.2 %	2.2 %
Parental depression variables		
Parents' BDI-II	n/a	19.23 (12.58)
Parents' SCID- number of threshold symptoms	n/a	2.64 (2.61)
Currently depressed	0.0 %[a]	26.7 %
Past episode of depression	16.7 %	93.9 %[b]
Family-level economic variables		
Parental education level (1–5 scale)	n/a	3.58 (1.11)[c]
Household income (1–9 scale)	n/a	5.60 (2.04)[d]
Neighborhood economic variables (census data, in %)		
Single mother households	n/a	11.03 (5.55)
Renters versus owners		3.70 (15.38)
Less than 9th grade education		5.25 (3.47)
More than 9th grade, but no high school diploma		9.81 (6.24)
High school diploma, no college		26.71 (8.68)
Disability status (5–20 years old)		7.95 (2.66)
Disability status (21–64 years old)		16.09 (6.13)
Different residence in past 5 years		46.06 (7.96)
Unemployment		3.98 (7.36)
Families under the poverty level		7.13 (5.76)
Median family income (in 1999)		55,525.27 (16,925.17)
Measures of child internalizing problems and parent depressive symptoms and disorders		
CBCL internalizing symptoms *T* score	59.38 (10.62)	n/a
YSR internalizing symptoms *T* score	54.62 (11.53)	n/a
CBCL externalizing symptoms *T* score	54.51 (10.53)	n/a
YSR externalizing symptoms *T* score	49.58 (10.20)	n/a

YSR youth self report, *CBCL* child behavior checklist, Scores for the YSR and CBCL are normalized *T* scores. *BDI-II* beck depression inventory-II; *SCID* structural clinical interview for DSM. Values in parentheses indicate standard deviation

[a] Children and adolescents who met criteria for current depression were excluded from the study and put on a waitlist until they were out of episode

[b] All parents met criteria for past and/or current depression

[c] This score corresponds to between “some college or technical school” and “college graduate”

[d] This score corresponds to between “25,000–39,999” and “40,000–59,999” annual income

Table 2

Correlations of parental depressive symptoms, disrupted parenting, family SES, neighborhood economic disadvantage, and children's internalizing and externalizing symptoms

	1	2	3	4	5	6
1. Parental depressive symptoms	–					
2. Family SES	.29**	–				
3. Neighborhood economic disadvantage	.15*	.45**	–			
4. Disrupted parenting	.33**	.28**	.11	–		
5. Children's internalizing symptoms	.29**	.31**	.18*	.53**	–	
6. Children's externalizing symptoms	.25**	.28**	.20*	.51**	.67**	–

*$p < .05$,

**$p < .01$

Table 3

Linear regression analysis of parental depressive symptoms, family SES, neighborhood economic disadvantage, and disrupted parenting as predictors of children's internalizing symptoms

Model	Beta (β)	*t* value	*p* value
Step 1			
Parental depression symptoms	.29	3.85	.01
Step 2			
Parental depression symptoms	.23	2.87	.01
Family SES	.18	2.09	.04
Neighborhood economic disadvantage	.10	1.20	.23
Step 3			
Parental depressive symptoms	.10	1.36	.18
Family SES	.09	1.15	.25
Neighborhood economic disadvantage	.11	1.42	.16
Disrupted parenting	.43	5.88	.01

Table 4

Linear regression analysis of parental depressive symptoms, Family SES, neighborhood economic disadvantage, and disrupted parenting as predictors of children's externalizing symptoms

Model	Beta (β)	*t* value	*p* value
Step 1			
Parental depression symptoms	.29	3.85	.01
Step 2			
Parental depression symptoms	.24	2.99	.01
Family SES	.13	1.48	.14
Neighborhood economic disadvantage	.12	1.42	.16
Step 3			
Parental depressive symptoms	.11	1.50	.14
Family SES	.09	1.05	.62
Neighborhood economic disadvantage	.12	1.60	.10
Disrupted parenting	.38	4.90	.01