Research Article

CHILDREN OF LOW-INCOME DEPRESSED MOTHERS: PSYCHIATRIC DISORDERS AND SOCIAL ADJUSTMENT†

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Background: *Although several studies have documented a higher prevalence of psychiatric disorders in children of depressed than nondepressed parents, previous research was conducted in predominantly White, middle, or upper-middle class populations. Only limited information is available on psychiatric disorders and psychosocial functioning in children of low-income depressed mothers.* **Methods:** *We report the findings in children of mothers with and without a lifetime history of major depressive disorder, who were recruited from a large urban primary-care practice. Bilingual clinical interviewers assessed 58 children with structured diagnostic interviews administered to most children (90%) and to their mothers as informants. Diagnostic assessments and best estimate diagnoses of the children were blind to the mothers' diagnostic status.* **Results:** *The families were poor and predominantly Hispanic, more than half of them headed by single mothers. After adjusting for child age and gender, and for any possible sibling correlation, children of depressed mothers had significantly higher rates of lifetime depressive, separation anxiety, oppositional defiant, and any psychiatric disorders than children of control mothers, with a lifetime prevalence of any psychiatric disorder of 84.6 versus 50.0%, respectively. Children of depressed mothers also reported significantly lower psychosocial functioning and had higher rates of psychiatric treatment.* **Conclusions:** *We conclude that the risk for psychiatric disorders may be particularly high in children of low-income depressed mothers. The primary-care setting offers a unique opportunity for early intervention with this underserved group. Depression and Anxiety 26:513–520, 2009.*

Key words: *children; depressed mothers; low income; psychiatric disorders; social adjustment; primary care*

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Contract grant sponsor: Minority Supplement; Contract grant number: MH 36197-15; Contract grant sponsors: Lilly; Sackler Foundation; Klingenstein Foundation; New York State Psychiatric Institute Frontier; CPIRC Funds.

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Received for publication 12 December 2007; Revised 14 July 2008; Accepted 21 July 2008

DOI 10.1002/da.20522
Published online 18 November 2008 in Wiley InterScience (www.interscience.wiley.com).

† The work was performed at Columbia University Medical Center and New York State Psychiatric Institute.

INTRODUCTION

Major depressive disorder (MDD) is a highly recurrent disorder that is particularly prevalent in women during their childbearing years, thus resulting in a large number of exposed children.[1, 2] Several studies have documented higher rates of psychiatric disorders, including major depressive, anxiety, disruptive behavior, and substance use disorders in children of depressed parents compared to children of never-depressed parents.[3–10] Children of depressed parents also have lower psychosocial functioning and are more likely to receive outpatient and inpatient treatment for emotional problems.[8, 11, 12]

Although a substantial body of knowledge has accumulated on children of depressed parents, previous studies with few exceptions were conducted in predominantly White, middle, or upper-middle class populations; in these studies, the majority of children had married parents with at least a high school education.[3–5, 7–10] Community studies, however, have found an association between lower socioeconomic status and higher rates of psychiatric disorders, including MDD.[13–15] A higher prevalence of lifetime MDD has been reported in families with yearly incomes below $10,000 and in poor mothers with low education.[16, 17] Studies of poor children have found higher rates of externalizing[18, 19] and internalizing[20] problems, and more psychosocial problems in children from families with yearly incomes below $10,000.[21] Although studies have documented the link between poverty and mental illness in children, only limited information is available on children of low-income depressed mothers.

A recent study assessed psychiatric disorders in children of depressed mothers enrolled in the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) multisite trial.[22] This study included families of varied ethnicity and socioeconomic status, with 29% of mothers receiving public assistance. Although it did not include a control group of children of mothers without depression, 34% of the assessed children of depressed mothers had a current psychiatric disorder.[22] Another study in low-income, minority families (98% Hispanic or African-American mothers) assessed children indirectly through parents' and teachers' reports. Results indicated a significant relationship between maternal depression and behavioral and emotional problems in the children (Riley et al., in press).[23]

Weissman et al.[24] published findings in a larger sample of low-income, predominantly Hispanic mothers surveyed in a primary-care setting, many of whom participated in the study reported here. Results from that initial study using a self-report questionnaire administered to the mothers suggested significantly higher rates of serious emotional problems and unmet mental health treatment needs in children of depressed mothers compared to children of nondepressed mothers.[24] Preliminary findings from that study provided the impetus to conduct complete diagnostic interviews in a subsample of mothers and their children. This study reports the findings on these children, whose mothers are predominantly Hispanic immigrants from the Caribbean Islands and Central America and speak primarily Spanish. We hypothesized a higher prevalence of depressive, anxiety, and disruptive behavior disorders as well as lower psychosocial functioning in children of mothers with lifetime depression compared to children of never-depressed mothers.

MATERIALS AND METHODS

A sample of convenience of mothers aged 25–55 years was recruited from the Associates in Internal Medicine practice, the faculty and resident general internal medicine group practice at the College of Physicians and Surgeons of Columbia University. Mothers were initially screened with the PRIME-MD Patient Health Questionnaire.[25] After explaining the study procedures to them and obtaining signed informed consent, two bilingual trained clinical interviewers (a master's level clinician and a psychiatrist) administered the Structured Clinical Interview for the *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition (DSM-IV), nonpatient version (SCID-NP).[26] Based on the SCID-NP, mothers were classified into two groups: (1) *depressed mothers* who had at least one lifetime episode of DSM-IV MDD of at least 4 weeks duration and (2) *never-depressed mothers* who had no lifetime history of MDD. Mothers who did not meet criteria for either of the two groups were excluded from further study. Mothers with a lifetime history of bipolar disorder, lifetime substance dependence or current substance abuse, lifetime psychotic symptoms unrelated to MDD, or severe medical illness were also excluded. By design, never-depressed mothers with a history of a depressive disorder not meeting full criteria for MDD or an anxiety disorder were not excluded from the control group. The Institutional Review Boards of the Columbia-Presbyterian Medical Center and the New York State Psychiatric Institute approved the protocol.

Up to three children per family, aged 8–17 years at the time of initial contact, were diagnostically assessed with the Schedule of Affective Disorders and Schizophrenia for School-Aged Children (K-SADS-PL)[27] by two doctoral-level bilingual trained clinical interviewers (A. F. and a psychologist). If there were more than three eligible children in a family, three were selected using a table of random numbers. Four families enrolled in the study 2–3 years after initial contact, thus four children included in the study were older than 17 years (three were 18 and one was 20 years old). Adoptive children and children not living with the mother were excluded from the study. All children who were directly interviewed gave assent and their mothers gave signed informed consent for them to participate in the interview.

The final study sample consisted of 58 children: 26 children of 16 depressed mothers and 32 children of 19 never-depressed mothers. Eighteen families had two or more siblings. Two thirds of the mothers were administered clinical interviews and questionnaires in Spanish, and most of the children in English. All instruments not already available in Spanish were translated and back-translated by a team of professional translators. The K-SADS-PL was directly administered to 52 of the children and separately to their mothers as informants. For the remaining six children, who were all children of depressed mothers, information was obtained from an interview with the mother about the child, also using the K-SADS-PL: four of these children declined to participate, one was in jail at the time of the

study, and one child left the country for an extended period after his mother had enrolled in the study. The children's interviewers were blind to the mothers' diagnostic status. Final diagnoses for mothers and children were based on the best estimate (BE) diagnostic procedure.[28] The BE diagnosticians were blind to all participants' diagnostic status.

The Social Adjustment Inventory for Children and Adolescents (SAICA)[29] was administered separately to the children and to the mothers as informants. The SAICA is a semi-structured interview developed to study school-aged children. It evaluates children's functioning in several areas, including school, spare time activities, and relationships with parents, siblings, and peers. Items are scored on a scale from 1 to 4, with higher numbers indicating more problems or lower competence. Children's psychosocial functioning was also assessed with the Global Assessment Scale (GAS).[30] Nonverbal IQ was measured with the Kaufman Brief Intelligence Test matrices section[31] verbal IQ was not measured because, although most children were interviewed in English, the fact that the majority came from Spanish-speaking homes might have led to falsely low verbal IQ scores. Information about the children's mental health treatment history was obtained from the mothers.

STATISTICAL ANALYSES

Differences in relevant demographic characteristics between depressed and nondepressed mothers, and between children of mothers in the two groups, were tested using χ^2 tests for categorical variables and *t* tests for continuous variables. To test for associations between maternal depression status and categorical measures in children (i.e. diagnoses), logistic regression models within the generalized estimating equation (GEE) procedure framework were performed, with child diagnoses as the dependent variable and maternal depression status as the independent variable; age and gender of child were included as potential confounding variables in all analyses. The GEE procedure, assuming exchangeable correlation matrix between members of the same family, was used to account for potential nonindependence of results among children from the same family (potential sibling correlation).[32] When the number of diagnoses in specific categories was so small that logistic regression analyses would not be valid, we used Fisher's Exact Tests to test these associations.

To determine the effect of maternal depression on continuous scale scores in children (nonverbal IQ, SAICA subscale scores, and GAS score) while adjusting for the effects of age and gender of child, and sibling correlation in scale scores, we used mixed effects regression models,[33] with child scores being the dependent variable, the effect of maternal depression status, age, and gender of child treated as fixed effects, and the effect of family treated as a random effect. To have a better understanding of the specific problem areas where there were significant effects of maternal depression, we dichotomized the individual SAICA item scores (no problem versus at least a mild problem) and conducted secondary analyses using the GEE procedure whenever possible or Fisher's Exact Tests. For the SAICA, results are presented for the subset of children with complete reports from both mother and child. All statistical tests were two-tailed.

RESULTS

The families in the sample were poor and predominantly Hispanic (see Table 1). Twelve (34.3%) mothers were receiving public assistance and 7 (20.0%) were receiving social security income. Sixty percent of the mothers had not completed high school. More than half the mothers were single, separated, or divorced, and not currently living with a partner. Mean age and ethnicity distribution of the children did not differ significantly between the two groups. Although there were fewer girls in the children of depressed mothers' group, this difference was not statistically significant (see Table 1).

Twelve of the 16 mothers with lifetime MDD had a history of chronic or recurrent MDD. Mean total duration of MDD was 42.4 months ($SD = 60.0$ months). Other lifetime comorbid disorders in the depressed mothers' group included posttraumatic

TABLE 1. Sociodemographic characteristics of mothers and children

Mothers ($N = 35$)	Depressed mothers ($N = 16$)	Control mothers ($N = 19$)	*P*
Age, mean (*SD*) (years)	43.4 (7.4)	42.1 (5.8)	.54
Marital status, *N* (%)			
Married or cohabiting	7 (43.8%)	5 (26.3%)	.28
Single/separated/ divorced	9 (56.3%)	14 (73.7%)	
Ethnicity, *N* (%)			
Hispanic	12 (75.0%)	15 (79.0%)	.25
Non-Hispanic Black	2 (12.5%)	0	
Mixed or other	2 (12.5%)	4 (21.0%)	
Education, *N* (%)			
Less than high school	9 (56.2%)	12 (63.2%)	.92
High school graduate	6 (37.5%)	6 (31.6%)	
College graduate	1 (6.3%)	1 (5.3%)	
Annual household income, *N* (%) ($)			
≤$9,999	4 (25.0%)	4 (21.1%)	.80
$10,000–$19,999	7 (43.8%)	9 (47.4%)	
$20,000–$29,000	3 (18.8%)	3 (15.8%)	
≥$30,000	2 (12.5%)	3 (15.8%)	
Receiving public assistance, *N* (%)	5 (31.3%)	7 (36.8%)	.73
Religion, *N* (%)			
Catholic	13 (81.3%)	17 (89.5%)	.32
Protestant	3 (18.8%)	1 (5.3%)	
Other	0	1 (5.3%)	
Children ($N = 58$)	**Children of depressed mothers ($N = 26$)**	**Children of control mothers ($N = 32$)**	***P***
Age, mean (*SD*) (years)	13.6 (3.4)	13.2 (2.6)	.59
Teenagers (≥13 years), *N* (%)	15 (57.7%)	20 (62.5%)	.71
Girls, *N* (%)	10 (38.5%)	18 (56.3%)	.18
Ethnicity, *N* (%)			
Hispanic	21 (80.8%)	30 (93.8%)	.14
Non-Hispanic Black	3 (11.5%)	0	
Mixed or other	2 (7.7%)	2 (6.3%)	
Biological father living at home, *N* (%)	7 (26.9%)	14 (43.8%)	.19
Biological father or stepfather living at home, *N* (%)	13 (50.0%)	14 (43.8%)	.64

SD, standard deviation.

stress disorder ($n = 6$), specific phobia ($n = 5$), social phobia ($n = 2$), obsessive–compulsive disorder ($n = 2$), and dysthymic disorder ($n = 1$). The remaining eight mothers had a history of lifetime MDD without comorbid disorders. In the group of 19 never-depressed mothers, the following lifetime disorders were diagnosed: specific phobia ($n = 3$), depressive disorder not otherwise specified (DDNOS; $n = 1$), adjustment disorder with depressed mood ($n = 1$), and anxiety disorder not otherwise specified ($n = 1$). Thirteen mothers in the never-depressed group had no history of any DSM-IV Axis I disorders.

After adjusting for child age and gender and for any possible sibling correlation, children of depressed mothers had significantly higher rates of lifetime depressive disorders, as compared to children of never-depressed mothers (see Table 2). These included MDD ($n = 4$), MDD with comorbid dysthymic disorder ($n = 2$), dysthymic disorder without MDD ($n = 2$), and DDNOS ($n = 1$). In comparison, only two children of never-depressed mothers had DDNOS and there were no other depressive disorders in that group. Children of depressed mothers had a significantly higher lifetime prevalence of separation anxiety disorder, oppositional defiant disorder, and any psychiatric disorder (see Table 2). Seven (26.9%) children of depressed mothers had a history of suicidal ideation, as compared to only one (3.1%) child of a never-depressed mother ($P = .02$). One child of a depressed mother and no children of never-depressed mothers had attempted suicide.

Nonverbal IQ did not significantly differ between the two groups of children [mean standardized score (standard deviation) = 99.5 (2.9) in children of depressed mothers and 103.2 (2.2) in children of never-depressed mothers]. Children of depressed mothers reported significantly lower psychosocial functioning in several domains (as indicated by higher scores on the SAICA), including poorer relationships with mother and siblings and lower overall home functioning, overall competence, and overall functioning. Children of depressed mothers gave significantly worse ratings to their problems with peers and with their parents (see Table 3). Specifically, there were trends toward more problems such as bullying other children ($P = .052$) and preferring to spend time with older children [adjusted odds ratio (AOR) = 7.23, $P = .07$] and children of the opposite sex ($P = .052$). Children of depressed mothers were significantly more likely to report refusal to do chores or honor restrictions at home (AOR = 6.97, $P = .01$) and problems such as damaging family property (AOR = 9.76, $P = .03$). There were also trends toward more behavioral problems at school and more overall problems, but no difference in academic functioning. SAICA scores derived from maternal reports were generally similar, with some exceptions (see Table 3). Although children of depressed mothers rated their relationships with their mother and siblings as significantly lower in quality than children of control mothers, these differences did not reach significance in maternal reports. Similarly, children of depressed mothers were significantly more likely to report problems with parents but this was not the case with maternal reports.

Children of depressed mothers had a lower mean GAS score (indicating lower functioning) compared to children of never-depressed mothers [63.8 (1.8) versus 77.9 (1.6), respectively; $P < .0001$]. They also had a significantly higher rate of lifetime outpatient mental health treatment and a trend toward higher number of psychiatric hospitalizations (see Table 4). Three children of depressed mothers had had a psychiatric hospitalization: a girl at age 7 for suicidal ideation and two boys at ages 8 and 9 for behavioral problems. Children of depressed mothers were significantly more likely to have been treated with psychostimulants and showed a trend toward increased treatment with antipsychotic medication (see Table 4).

TABLE 2. Lifetime prevalence of DSM-IV diagnoses in children by maternal depression status

DSM-IV diagnosis in children	Children of depressed mothers ($N = 26$)	Children of control mothers ($N = 32$)	AOR (95% CI)[a]
Any depressive disorder, *N* (%)	9 (34.6%)	2 (6.3%)	14.8 (1.4, 154.4)*
Any anxiety disorder, *N* (%)	13 (50.0%)	11 (34.4%)	1.9 (0.6, 6.7)
Separation anxiety disorder	6 (23.1%)	0	.006[a]
Specific phobia	6 (23.1%)	5 (15.6%)	1.9 (0.5, 7.5)
Social phobia	2 (7.7%)	4 (12.5%)	0.1 (0.0, 0.9)*
Any disruptive behavior disorder, *N* (%)	12 (46.2%)	6 (18.8%)	3.0 (0.7, 12.1)
ADHD	7 (26.9%)	2 (6.3%)	4.3 (0.7, 26.4)
ODD	9 (34.6%)	2 (6.3%)	.008[a]
Any substance use disorder, *N* (%)	2 (7.7%)	1 (3.1%)	0.4 (0.0, 18.2)
Any psychiatric disorder, *N* (%)	22 (84.6%)	16 (50.0%)	5.4 (1.3, 22.3)*

DSM-IV, *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition; AOR, adjusted odds ratio, controlling for child age and gender and for any possible correlation between multiple children from one family (using the generalized estimating equation (GEE) procedure); ADHD, attention-deficit hyperactivity disorder; ODD, oppositional defiant disorder.

[a]*P*-value calculated using Fisher's Exact Test when cell counts were inadequate for the GEE procedure.

*$P < .05$.

TABLE 3. Psychosocial functioning in children by maternal depression status

Selected mean SAICA scores (*SD*)		Children of depressed mothers ($N = 20$)[a]	Children of control mothers ($N = 32$)	*P*
Academic functioning	Mother	2.29 (0.89)	2.02 (0.80)	.24
	Child	2.18 (0.90)	1.86 (0.82)	.31
School problems	Mother	1.57 (0.55)	1.32 (0.37)	.06
	Child	1.53 (0.55)	1.27 (0.27)	.07
Peer relationships	Mother	1.98 (0.75)	1.99 (0.61)	.84
	Child	1.65 (0.42)	1.74 (0.35)	.31
Peer problems	Mother	1.28 (0.51)	1.15 (0.28)	.17
	Child	1.28 (0.26)	1.09 (0.16)	.004
Sibling relationships	Mother	1.68 (0.73)	1.38 (0.56)	.09
	Child	1.96 (0.85)	1.44 (0.48)	.02
Relationship with mother	Mother	1.55 (0.58)	1.35 (0.57)	.25
	Child	1.88 (0.91)	1.24 (0.41)	.02
Relationship with father	Mother	2.19 (0.99)	2.06 (1.01)	.44
	Child	1.98 (0.90)	2.01 (1.10)	.72
Problems with parents	Mother	1.45 (0.56)	1.23 (0.26)	.07
	Child	1.51 (0.47)	1.16 (0.26)	.003
Overall home functioning	Mother	1.60 (0.45)	1.39 (0.30)	.04
	Child	1.69 (0.49)	1.36 (0.28)	.03
Overall competence	Mother	2.12 (0.35)	2.04 (0.25)	.18
	Child	2.04 (0.26)	1.88 (0.24)	.045
Overall problems	Mother	1.41 (0.46)	1.22 (0.23)	.04
	Child	1.42 (0.32)	1.20 (0.20)	.07
Overall SAICA	Mother	1.74 (0.33)	1.60 (0.17)	.03
	Child	1.71 (0.23)	1.52 (0.18)	.009

SAICA, Social Adjustment Inventory for Children and Adolescents; higher scores reflect lower functioning; scores were derived separately from mothers' ("Mother") and children's ("Child") own reports; *SD*, standard deviation.
[a]$N = 18$–20 in the children of depressed mothers' group due to missing data.

TABLE 4. Lifetime mental health treatment in children by maternal depression status

Treatment, *N* (%)	Children of depressed mothers ($N = 26$)	Children of control mothers ($N = 32$)	*P*
Psychiatric hospitalization	3 (11.5%)	0	.08[a]
Outpatient with any professional	17 (65.4%)	5 (15.6%)	.005[b]
Any medication	7 (26.9%)	0	.002[a]
Antipsychotics	3 (11.5%)	0	.08[a]
Antidepressants	1 (3.8%)	0	.45[a]
Stimulants	6 (23.1%)	0	.006[a]
Lithium	1 (3.8%)	0	.45[a]

[a]Calculated using Fisher's Exact Test.
[b]Calculated using the generalized estimating equation (GEE) procedure.

DISCUSSION

This study of directly interviewed children of depressed, predominantly Hispanic low-income mothers recruited from an urban primary-care practice found a significantly higher lifetime prevalence of depressive disorders, separation anxiety disorder, oppositional defiant disorder, any psychiatric disorder, and suicidal ideation when compared to children of never-depressed control mothers. Children of depressed mothers also reported lower psychosocial functioning across several areas, in particular lower general competence and overall home functioning, more problems with peers and with parents, and lower quality of relationships with their mother and siblings. The higher prevalence of psychopathology and lower functioning in this group of children are reflected in higher rates of outpatient and inpatient psychiatric treatment.

These findings in a low-income, minority population parallel the findings from several studies of children of depressed parents recruited from more affluent Caucasian populations. Children of depressed parents in these prior studies demonstrated increased rates of depressive, anxiety and disruptive behavior disorders, and lower psychosocial functioning[3–10]. Consistent with these studies, children of depressed mothers in our study were vulnerable not only to depression but to other disorders as well. Although Downey and Coyne,[11] in their comprehensive review of the field, commented that children of depressed parents' social and school problems are not due to lower intellectual capacity, other studies have reported lower scores on intelligence measures in addition to lower academic performance.[12] In our study, although there was a trend toward more behavioral problems at school,

there were no significant differences in academic performance or measured IQ when compared with children of control mothers. We also found that children of depressed mothers had more problems in relationships with family and peers.

Studies have shown that children living in poor neighborhoods are at increased risk for mental health problems, even after accounting for maternal depression.[20, 21] Low socioeconomic status particularly increases risk not only for childhood externalizing problems, such as disobedience, impulsivity, and relationship difficulties,[19] but also for internalizing problems.[20] At the same time, poverty has been associated with higher rates of maternal depression and higher numbers of single-mother homes, thus compounding risk for poor children. Several studies have shown that children living in single-mother homes are at increased risk for a range of problems, including emotional and behavior problems.[18, 34, 35] Achenbach et al.[34] reported that children with higher scores on internalizing and externalizing problems were more likely to have single, separated, or divorced parents, and parents who were receiving public assistance. More than half the families in our study had no father or stepfather living in the home. The presence of multiple risk factors is associated with higher risk of problematic outcomes in children.[18]

It is difficult to compare the findings in our sample to those in samples of more affluent families due to methodological differences across studies, such as recruitment of depressed mothers from psychiatric versus primary-care treatment settings, inclusion of children of depressed fathers in some samples, and different inclusion and exclusion criteria, especially for the control mothers' group. Our results, however, suggest that the overall lifetime prevalence of psychiatric disorders in children of low-income depressed mothers (84.6% in this sample) is in the upper range of that in children of depressed mothers from more affluent populations, if not somewhat higher. The combination of socioeconomic factors and maternal depression might place children at particularly high risk for emotional and behavioral problems. Of note, in our sample even children of never-depressed mothers had a high lifetime prevalence of psychiatric disorders (50.0%), paralleling the findings from community studies of poor families and children described above.

Results from this study have implications for prevention and early intervention in primary-care practices serving low-income patients. Epidemiologic studies indicate that major depression is prevalent in primary-care settings, and particularly in practices serving low-income populations.[36–38] Studies have shown that poor people are less likely to seek mental health treatment,[39] less likely to receive treatment from mental health specialists,[40, 41] and more likely to exclusively rely on primary-care physicians for attention to their mental health needs when they do seek help.[42] As shown in the data from the National Medical Expenditure Survey, medical doctors provide mental health care to 40% of poor and 47% of nearly poor mental health outpatients, as compared to only 27 % of low-income, 33% of middle-income, and 29% of high-income mental health outpatients.[42] Several studies have recently reported that successful treatment of maternal depression can improve outcomes in the children, including improvement in symptoms and function.[9, 10, 43–45] In the STAR*D-Child Study,[9, 10] results were similar whether mothers were treated in primary-care or psychiatric settings, although lower-income mothers had a poorer response to treatment. In addition to treating depression in the mother, asking basic questions about the emotional health of her children is an important step toward identifying and referring children who may be exhibiting early symptoms. Primary-care physicians who evaluate mothers with depression should add a few screening questions about the children.

Strengths of this study include: diagnostic information obtained directly from both children and mothers in the majority of cases, thus reducing possible bias stemming from including depressed mothers as sole informants[46,47]; recruitment of mothers from a primary-care setting, thus allowing access to a sample of depressed mothers with a potentially broader range of illness severity, including some who might not have sought psychiatric treatment; recruitment of depressed and control mothers from the same setting, thus increasing comparability between depressed and control mothers with respect to potentially confounding sociodemographic variables; and, finally, access to families headed by a Spanish-speaking mother, a largely unstudied population, through bilingual clinical interviewers.

This study has several limitations. First, its sample size precludes examination of the specificity of associations of maternal depression with particular offspring diagnoses, for example, with depressive disorders versus oppositional defiant disorder. Second, given recruitment of a sample of convenience, it is not possible to know how representative our sample of mothers is of the population of mothers attending this primary-care practice. Third, information on six children of depressed mothers was obtained solely from their mothers, thus introducing some possible reporting bias. Finally, given that data were collected only on low-income families, this study does not allow a direct, statistical comparison of children of depressed mothers across socioeconomic groups.

CONCLUSION

Results from this study suggest that the risk for psychiatric disorders may be particularly high in children of low-income depressed mothers. Future studies should directly compare children of depressed mothers across socioeconomic groups as well as examine the potential impact of maternal immigrant

status on high-risk children. Given multiple risk factors that often coalesce for poor children, early detection and intervention become particularly important. The primary-care setting offers unique opportunities for detection and treatment of psychiatric problems in these children because low-income depressed mothers, if they seek help, are likely to do so from their primary-care physician.

Acknowledgments. This research was supported by a Minority Supplement (Dr. Feder) to grant MH 36197-15 (Dr. Weissman), an investigator-initiated grant from Lilly (Weissman), a Sackler Foundation mini grant (Dr. Feder), the Klingenstein Foundation (Dr. Weissman), and the New York State Psychiatric Institute Frontier and CPIRC Funds (Dr. Feder). We are very grateful to Steven Shea, M.D., Hamilton Southworth Professor of Medicine, Columbia University, and Chief of the Division of General Medicine, Columbia-Presbyterian Medical Center, and to Rafael Lantigua, M.D., Professor of Clinical Medicine, Columbia University, and Director of General Medicine, Outpatient Services, Columbia-Presbyterian Medical Center, for their wholehearted support for this study. We also thank Monica Wolff, Ph.D., for granting us permission to use her Spanish translation of the K-SADS.

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