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Depressive Symptoms in Nonresident African American Fathers and Involvement With Their Sons

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KEY WORDS
father involvement, depression, parent-child relationships

ABBREVIATIONS
CES-D—Center for Epidemiological Studies Depression scale
CBPR—community-based participatory research

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WHAT'S KNOWN ON THIS SUBJECT: Paternal depressive symptoms are associated with less positive involvement for fathers living with their children. Little is known about associations between paternal depressive symptoms and involvement for fathers not living with their children (ie, nonresident fathers).

WHAT THIS STUDY ADDS: This is the first study, to our knowledge, to report strong consistent associations between paternal depressive symptoms and decreased measures of father involvement for nonresident fathers. Implications for medical providers for children and community-based responsible fatherhood programs are discussed.

abstract

OBJECTIVE: Our objective was to determine whether paternal depressive symptoms were associated with less father involvement among African American fathers not living with their children (ie, nonresident fathers).

METHODS: We analyzed survey data for 345 fathers enrolled in a program for nonresident African American fathers and their preteen sons. Father involvement included measures of contact, closeness, monitoring, communication, and conflict. We used bivariate analyses and multivariate logistic regression analysis to examine associations between father involvement and depressive symptoms.

RESULTS: Thirty-six percent of fathers reported moderate depressive symptoms, and 11% reported severe depressive symptoms. In bivariate analyses, depressive symptoms were associated with less contact, less closeness, low monitoring, and increased conflict. In multivariate analyses controlling for basic demographic features, fathers with moderate depressive symptoms were more likely to have less contact (adjusted odds ratio: 1.7 [95% confidence interval: 1.1–2.8]), less closeness (adjusted odds ratio: 2.1 [95% confidence interval: 1.3–3.5]), low monitoring (adjusted odds ratio: 2.7 [95% confidence interval: 1.4–5.2]), and high conflict (adjusted odds ratio: 2.1 [95% confidence interval: 1.2–3.6]). Fathers with severe depressive symptoms also were more likely to have less contact (adjusted odds ratio: 3.1 [95% confidence interval: 1.4–7.2]), less closeness (adjusted odds ratio: 2.6 [95% confidence interval: 1.2–5.7]), low monitoring (adjusted odds ratio: 2.8 [95% confidence interval: 1.1–7.1]), and high conflict (adjusted odds ratio: 2.6 [95% confidence interval: 1.1–5.9]).

CONCLUSION: Paternal depressive symptoms may be an important, but modifiable, barrier for nonresident African American fathers willing to be more involved with their children. *Pediatrics* 2009;124:1611–1618

Children and adolescents with limited positive father involvement are at increased risk of depression, delinquent activity, and adverse health behaviors, including smoking, alcohol use, illicit drug use, early sexual activity, and nonadherence to medical therapies.[1–6] Recognizing this, the American Academy of Pediatrics has suggested that pediatricians and other medical providers for children encourage fathers to be appropriately involved in the lives of their children.[7–9] However, an increasing number of children live in homes without fathers. In 2007, 26% of children in the United States lived in homes without fathers, compared with 11% in 1960 and 22% in 1980. This trend has been more pronounced for African American children, with 50% living in fatherless homes in 2007.[10]

Research in father involvement has highlighted several factors beyond residential status that affect child and adolescent health. Lamb et al[11] proposed a conceptual model for positive father involvement that included 3 areas, that is, accessibility (availability and frequency of contact), engagement (direct interaction), and responsibility (arranging for and providing resources for care). Of these, the quality of paternal engagement has been shown to be particularly protective for child and adolescent health behaviors.[1,8,12]

Work on father involvement also has focused on important ethnic and cultural factors. For example, involvement of African American fathers not living with their children (nonresident fathers) has been shown to be protective for adolescent health risk behaviors.[13,14] Several factors have been found to affect levels of involvement for nonresident African American fathers, including educational level, economic and employment circumstances, relationship with the child's mother, geographic proximity to the child, relationship history with their own fathers, and positive self-image.[15,16]

Understanding other factors that affect the involvement of nonresident African American fathers may have important implications for many African American children. Emerging evidence suggests that paternal depressive symptoms adversely affect father-child relationships, with less play time, less warmth, increased psychological control (using guilt and withholding love), and increased conflict.[17–20] However, those studies primarily used data for fathers living with their children (resident fathers) and included limited numbers of African American families. Our objective was to investigate associations between depressive symptoms and a construct of positive father involvement, including measures of paternal accessibility and engagement, in a sample of nonresident African American fathers.

METHODS

Data Source

We performed a secondary analysis of survey data collected from 345 nonresident African American fathers at the time they enrolled in the Fathers and Sons program, a community-based participatory research (CBPR) intervention designed to improve relationships between nonresident African American fathers and their sons. Details of the intervention program were reported previously.[14] Fathers consented to be in the program, and surveys were collected from November 2002 through July 2006. The Fathers and Sons program was approved by the University of Michigan Health Sciences institutional review board and the institutional review board of a community medical center.

Study Population

The Fathers and Sons program included nonresident, African American, biological fathers, not functionally impaired by substance abuse, and their 8- to 11-year-old sons, with consent from the mothers or legal guardians of the sons. Recruitment was accomplished through community-based organizations, public libraries, and schools. Overall, 374 father-son pairs were identified, and research assistants administered the survey to 345 fathers.

Outcome Measures

Father involvement was operationalized within the conceptual model described by Lamb et al.[11] We focused on the domains of accessibility and engagement by using the survey items shown in Table 1. Accessibility was assessed on the basis of how often the father reported contact with his son and was categorized as <1 day per week, 1 to 3 days per week, or ≥ 4 days per week. Engagement was assessed on the basis of perceived closeness, level of monitoring, communication about risk behaviors, and level of conflict. Closeness was reported on the basis of how often the father felt close to his son, on a 4-point scale ranging from never to all of the time. Similar to other studies, monitoring was assessed with 7 questions regarding how much the father knew about his son's daily activities and whereabouts.[21] Cronbach's α for internal reliability for these 7 questions was 0.83. We designated monitoring as low if the average score for the 7 questions was <3, moderate if the average score was ≥ 3 but <4, and high if the average score was 4. Questions on risk behavior communication were adapted from the Youth Assets Scale and included items on whether the father had discussed specific health risk behaviors with his son.[22] Communication was considered high if ≥ 4 subjects had been discussed and low if ≤ 3 had been discussed. Two questions on the survey related to father-son conflict

TABLE 1 Father Involvement Items From Survey Instrument

- Frequency of contact
  - How often do you usually see your son? (1 = never, 2 = less than once per year, 3 = a few times per year, 4 = a few times per month, 5 = 1 d/wk, 6 = 2 or 3 d/wk, 7 = 4–6 d/wk, 8 = every day)
- Closeness
  - How often do you feel close to your son? (1 = never, 2 = not too often, 3 = most of the time, 4 = all of the time)
- Monitoring
  - How much do you know about your son's: (1 = nothing at all, 2 = not much, 3 = some, 4 = a lot)
    - Progress in school?
    - Friends?
    - After-school activities?
    - Homework habits?
  - How often do you know about what your son does: (1 = almost never, 2 = sometimes, 3 = usually, 4 = almost always)
    - On the weekends?
    - On weeknights?
  - When you are with him, how often do you know where your son is going when he leaves the house? (1 = almost never, 2 = sometimes, 3 = usually, 4 = almost always)
- Communication about risk behaviors
  - I have talked to my son about what is right or wrong about: (1 = yes, 2 = no)
    - Drinking alcohol.
    - Smoking cigarettes.
    - Engaging in violent behavior.
    - Smoking marijuana.
    - Using other drugs.
    - Engaging in sexual behavior.
- Conflict
  - How often do you: (1 = never, 2 = not too often, 3 = most of the time, 4 = all of the time)
    - Disagree with him?
    - Feel he gets angry with you?

and were used as a composite score. We defined conflict as high if the average score on the 2 questions was >2 and low if the score was ≤2.

Independent Variables

The survey instrument included a validated, 12-item, short form of the Center for Epidemiological Studies Depression scale (CES-D).[23,24] On the basis of previous studies, the score on the 12 items was converted to a 60-point scale; results were defined as none to mild depressive symptoms for scores of 0 to 15, moderate depressive symptoms for scores of 16 to 26, and severe depressive symptoms for scores of 27 to 60.[23,25] Demographic information also was collected.

Missing Data

Two percent of the fathers or fewer were missing data on the father involvement items of frequency of contact, closeness, communication, and conflict. However, 10.1% of fathers had missing data on monitoring questions, with most of those fathers missing the last 3 questions (Table 1). In addition, 5.5% of the fathers had missing data on the CES-D, with the majority missing only 1 question. We created markers for incomplete monitoring and CES-D scores. Bivariate and multivariate analyses using these markers suggested that the data were likely missing at random. Data are considered missing at random if the likelihood of missing data for the variable is not related to the respondent's score for that variable, with controlling for other variables in the study.[26] Multiple imputation through a chained equation method was used to replace missing data, because this has been shown to be more accurate than listwise deletion (exclusion of all information for subjects with any missing data) when data are likely missing at random.[26] Ten imputations were performed with the ICE program within Stata 10.0 (Stata, College Station, TX) and were pooled for a single set of results.[27] As noted below, the results were not notably different when multivariate analyses were performed with nonimputed data, compared with imputed data.

Statistical Analyses

We performed bivariate analyses with χ^2 testing, using the nonimputed data, to compare measures of father involvement and levels of depressive symptoms. For ease of interpretation, we dichotomized each of the measures of father involvement for multivariate logistic regression. Frequency of contact was dichotomized as more contact (≥4 days/week) or less contact (≤3 days/week). Closeness was dichotomized as more closeness (felt close all of the time) or less closeness (felt close most of the time or less). Monitoring was dichotomized as high monitoring (average score of ≥3) or low monitoring (average score of <3). Communication and conflict were defined as dichotomous measures above.

We performed multivariate logistic regression on both imputed and nonimputed data by using these dichotomous outcome variables. Our primary independent variable was the level of depressive symptoms. Educational level and financial security were included as covariates, because they were shown in other studies to be important factors affecting involvement for nonresident African American fathers.[15,16] We also included frequency of contact as a covariate in the analyses of closeness, monitoring, communication, and conflict, because we suspected that frequency of contact might be associated with some of these measures of father involvement and we were interested in the independent associations with depressive symptoms. In addition, we controlled

TABLE 2 Study Population Characteristics ($N = 345$)

Age, mean ± SD ($N = 345$), y	37.6 ± 7.6
Financial security ($N = 344$), %	
Not enough to get by	28.2
Barely enough to get by	28.2
Enough but no extras	35.8
More than enough	7.8
Educational level ($N = 342$), %	
Less than high school	21.6
High school or GED	32.8
Greater than high school	45.6
Employed ($N = 343$), %	49.9
Marital/partner status ($N = 342$), %	
Never married	45.3
Unmarried, living with partner	15.5
Divorced	15.5
Currently married	12.9
Separated	9.9
Widowed	0.9

GED indicates general equivalency diploma.

TABLE 3 Measures of Accessibility and Engagement

	Proportion of Total, %
Contact with son ($N = 342$)	
<1 d/wk	10.2
1–3 d/wk	42.7
≥4 d/wk	47.1
Closeness ($N = 343$)	
Never or not too often	8.2
Most of the time	33.8
All of the time	58.0
Monitoring ($N = 310$)	
Low (average score: <3)	21.6
Moderate (average score: ≥3 to <4)	63.2
High (average score: 4)	15.2
Communication about risk behaviors ($N = 338$)	
Low (discussed ≤3 items)	15.4
High (discussed ≥4 items)	84.6
Conflict ($N = 340$)	
Low (average score: ≤2)	73.8
High (average score: >2)	26.2

for age, employment status, and marital status in all analyses. We report the results with the imputed data, because the findings were very similar but more conservative in the imputed analyses, compared with the nonimputed analyses. All analyses were conducted with Stata 10.0.

RESULTS

Study Population

Characteristics of the fathers are presented in Table 2, and measures of father involvement are presented in Table 3. Overall, the fathers reported generally high levels of contact and closeness with their sons. Levels of monitoring and communication about risk behaviors also were generally high, whereas levels of conflict were predominantly low.

Depressive Symptoms

The nonresident African American fathers in this study reported substantial levels of depressive symptoms. Thirty-six percent reported moderate depressive symptoms, and 11% reported severe depressive symptoms. In bivariate analyses, depressive symptoms were associated with less contact with their sons, less closeness, less monitoring, and high conflict. Depressive symptoms were not associated with low levels of communication about risk behaviors (Table 4).

In multivariate analyses, we found independent associations between levels of depressive symptoms and less contact, less closeness, low monitoring, and high conflict. In each case, the estimated effect size was larger for severe depressive symptoms than for moderate depressive symptoms (Table 5).

As expected, less contact was independently associated with less closeness and low monitoring. Consistent with other studies, educational level was independently associated with low monitoring, and financial insecurity was independently associated with less closeness and high conflict (Table 5).

DISCUSSION

This is the first study, to our knowledge, to report specifically on the association between depressive symptoms and a conceptual construct of positive father involvement for nonresident fathers. In our sample of nonresident African American fathers, depressive symptoms were associated strongly and consistently with less involvement, in measures of both accessibility and engagement. These findings are consistent with the results of previous studies that investigated paternal depressive symptoms and positive father involvement for resident fathers,[17–20] but they suggest

TABLE 4 Bivariate Analyses of Father Involvement Measures and Depressive Symptoms

	Proportion With Depressive Symptoms, %			P^a
	None to Mild	Moderate	Severe	
Contact with son ($N = 324$)				
<1 d/wk	9.3	12.8	5.7	.015
1–3 d/wk	36.6	44.4	65.7	
≥4 d/wk	54.1	42.7	28.6	
Feels close to son ($N = 326$)				
Never or not too often	4.0	10.3	22.2	<.001
Most of the time	28.3	41.9	38.9	
All of the time	67.6	47.9	38.9	
Monitoring ($N = 292$)				
Low	11.1	30.5	38.2	<.001
Moderate	66.0	61.9	50.0	
High	22.9	7.6	11.8	
Communication about risk behaviors ($N = 320$)				
Low	12.4	19.0	14.3	.313
High	87.6	81.0	85.7	
Conflict ($N = 324$)				
Low	80.8	67.5	57.1	.003
High	19.2	32.5	42.9	

[a] Significance with χ^2 test.

TABLE 5 Adjusted Odds of Less Contact, Less Closeness, Low Monitoring, and Increased Conflict

Independent Variables	Odds Ratio (95% Confidence Interval)[a]			
	Less Contact[b]	Less Closeness[c]	Low Monitoring[d]	High Conflict[e]
Depressive symptoms				
None to mild (reference)[f]	1.0	1.0	1.0	1.0
Moderate	1.7 (1.1–2.8)	2.1 (1.3–3.5)	2.7 (1.4–5.2)	2.1 (1.2–3.6)
Severe	3.1 (1.4–7.2)	2.6 (1.2–5.7)	2.8 (1.1–7.1)	2.6 (1.1–5.9)
Frequency of contact				
≥4 d/wk (reference)		1.0	1.0	1.0
<3 d/wk (less contact)		2.5 (1.6–4.1)	5.3 (2.7–10.6)	1.1 (0.6–1.8)
Educational level				
Greater than high school (reference)	1.0	1.0	1.0	1.0
High school or GED	1.0 (0.6–1.7)	1.1 (0.6–1.8)	1.2 (0.6–2.3)	1.3 (0.7–2.3)
Less than high school	1.1 (0.6–2.0)	0.7 (0.3–1.3)	1.9 (0.9–4.2)	1.3 (0.7–2.6)
Financial security				
More than enough	0.8 (0.3–1.9)	1.4 (0.5–3.6)	1.0 (0.3–3.6)	1.6 (0.5–4.7)
Enough but no extras (reference)	1.0	1.0	1.0	1.0
Barely enough to get by	0.9 (0.5–1.5)	1.5 (0.8–2.8)	1.1 (0.5–2.3)	1.9 (1.0–3.8)
Not enough to get by	1.1 (0.6–1.9)	2.1 (1.1–4.0)	1.5 (0.7–3.4)	2.4 (1.2–4.8)

[a] Values were controlled for age, marital/partner status, and employment status. GED indicates general equivalency diploma.
[b] Defined by fathers answering ≤3 days/week to the question, "How often do you usually see your son?"
[c] Defined by fathers answering less than all of the time to the question, "How often do you feel close to your son?"
[d] Defined by averaging <3 on the scale for monitoring (Table 1).
[e] Defined by averaging >2 on the questions regarding conflict (Table 1).
[f] References were chosen as the most prevalent individual characteristic for each categorical variable.

potential implications for nonresident fathers. This study informs the expanded vision of family-centered pediatric care outlined in *Bright Futures*, "to address children's health needs in the context of family and community."[7]

One previous study also reported a significant association between depressive symptoms and less involvement for nonresident fathers.[28] However, the measure of father involvement used in that study was limited to whether the father had spent a day with his child in the past month. This study expands on previous work by suggesting that depressive symptoms in nonresident African American fathers are associated not only with less contact with their children but also with less engagement with their children. Importantly, positive paternal engagement has been shown to be particularly protective for child and adolescent health behaviors.[1,8,12]

Notably, this study moves beyond simply pointing out adverse associations related to father absence, by exploring a possible mechanism related to the variation in involvement for nonresident fathers. Because of the cross-sectional design of this study, our findings cannot imply causality between depressive symptoms and less father involvement. However, we hypothesize that this association is explained, in part, by depressive symptoms leading to less involvement, because this mechanism has been reported for resident fathers.[18,19] For example, Elgar et al[17] recently reported the results of a longitudinal study that suggested that depressive symptoms in resident fathers led to less nurturance, less monitoring, and increased rejection in their relationships with their children. This is consistent with conceptual models suggesting that symptoms of depression, such as irritability and anhedonia, lead to less-sensitive and less-engaged parenting.[29] Conversely, it is possible that some nonresident fathers become discouraged by living apart from their children, which leads to or enhances depressive symptoms. More research is needed to clarify this relationship.

Importantly, the nonresident fathers in our study were recruited to a community program on the basis of their willingness to be more involved with their sons. Depressive symptoms may be a particularly important barrier to involvement among similar nonresident fathers willing to be more involved with their children. Therefore, addressing depressive symptoms in such nonresident fathers may lead to increased levels of positive involvement and may provide added support to many children and adolescents who are at increased risk for adverse health and health behaviors. Notably, Weissman et al[30] showed that treatment of maternal depression was associated with improvements in child functioning. Treatment of paternal depression may have similar effects and should be investigated.

To our knowledge, this is the first study reporting on depressive symptoms specifically in nonresident African American fathers. The fathers in our sample reported remarkably high levels of depressive symptoms, with nearly one half re-

porting moderate or severe depressive symptoms. Importantly, depressive symptoms are likely underrecognized and undertreated in African American individuals.[31,32] Williams et al[33] identified several risk factors for depressive symptoms in African American individuals, including age of <60 years, unemployment, unmarried status, and urbanicity. Our study sample shared many of these risk factors.

Despite this, the majority of fathers in our sample reported substantial levels of involvement with their sons, which suggests that these fathers are playing important roles in their sons' lives. This is consistent with previous reports of relatively increased levels of involvement for nonresident African American fathers, compared with nonresident fathers of other ethnic groups, and is an important contrast to the social stigma commonly assigned to this group of fathers.[11,14] Roopnarine[15] suggested that African American cultural values related to flexible family boundaries, extended family networks, and racial socialization may influence relationships between nonresident African American fathers and their children. These values might have provided some resiliency for these fathers, as well as a framework for continued involvement.

The third edition of *Bright Futures* discusses the significant role that fathers can have in the lives of their children. These guidelines specifically encourage medical providers to understand each father's cultural values as well as factors related to his involvement with his children, such as mental health. The findings of this study support and inform these guidelines by focusing on the involvement of nonresident African American fathers with their sons. Medical providers should be aware of the role that nonresident African American fathers can play with their children, as well as the substantial association between levels of involvement and depressive symptoms. Efforts to reach out to nonresident African American fathers by including them in health supervision visits and assessing the nature of their involvement exemplify the expanded vision of family-centered care discussed in *Bright Futures*.

The findings of this study also have important implications for many existing and emerging community programs to promote responsible fatherhood. The Deficit Reduction Act of 2005 authorized up to $50 million of funding each year specifically for activities promoting fatherhood, such as counseling, mentoring, teaching parenting skills, and fostering economic stability.[34] In conjunction with that, the US Department of Health and Human Services issued a report suggesting methods to evaluate responsible fatherhood programs, including a recommendation to address paternal depression.[35] The findings of our study support this recommendation, particularly for nonresident fathers. Responsible fatherhood program administrators should consider (1) screening for depressive symptoms in nonresident fathers, (2) tailoring their interventions for those with depressive symptoms, (3) monitoring changes in depressive symptoms during the course of interventions, and (4) actively referring patients for mental health services as part of interventions. Although these efforts may increase initial program costs, downstream costs may be averted with earlier recognition and treatment of depressive symptoms in the fathers and potentially improved health and health behaviors in their children.

There are limitations to our study. First, our study sample was part of a CBPR intervention that required the willingness of the father to be more involved and the consent of the mother or legal guardian. Therefore, the findings cannot be generalized to all nonresident fathers or all nonresident African American fathers. However, the study might have practical applications for other programs to promote father involvement, because participation often depends on the willingness of the nonresident father and the mother or legal guardian.

Second, because depressive symptoms and father involvement outcomes were both self-reported, fathers with depressive symptoms might have indicated lower levels of involvement in part because of low mood at the time of the survey (shared-method variance), with artificial accentuation of the differences in involvement. However, we do not think this substantially affected reported differences in involvement, because of the robust nature of our positive findings and because no associations between depressive symptoms and communication about risk behaviors were observed. We would have expected shared-method variance to have affected the communication outcome similarly if it were biasing the other father involvement outcomes significantly. In addition, the fathers' reports of involvement were statistically correlated with the sons' reports of involvement in the areas of amount of contact, closeness, monitoring, and conflict (correlation data not shown but available on request).

Third, social desirability might have partially affected the reporting of father involvement. Fourth, because of the high levels of reported contact and closeness in the sample, our dichotomous cutoff points for logistic regression were necessarily arbitrary for these measures. However, this does not negate the strong internal relationships between these measures and levels of depressive symptoms. Fifth, this study focused on fathers' reports regarding involvement in their sons' lives and excluded perceptions of in-

volvement with daughters. The intervention component of the CBPR program was tailored specifically to father-son interactions. Therefore, we cannot comment directly on implication for daughters or possible gender-related dynamics. Finally, our study used the CES-D to assess depressive symptoms. Although CES-D results have been correlated with the diagnosis of depression, an actual diagnosis requires a clinical encounter.[25]

CONCLUSIONS

Depressive symptoms may be an important but potentially modifiable barrier for nonresident African American fathers who are willing to be more involved with their children. Addressing paternal depressive symptoms may lead to increased support and protection for many children and adolescents at increased risk for adverse health and health behaviors. Medical providers should recognize the important role that nonresident African American fathers can have in the lives of their children and should include them, when possible, in anticipatory guidance and medical decisions.

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REFERENCES

1. Bronte-Tinkew J, Moore KA, Carrano J. The father-child relationship, parenting styles and adolescent risk behaviors in intact families. *J Fam Psychol.* 2006;27(6):850–881
2. Berg CA, Butler JM, Osborn P, et al. Role of parental monitoring in understanding the benefits of parental acceptance on adolescent adherence and metabolic control of type 1 diabetes. *Diabetes Care.* 2008;31(4):678–683
3. Wysocki T, Gavin L. Paternal involvement in the management of pediatric chronic diseases: associations with adherence, quality of life, and health status. *J Pediatr Psychol.* 2006;31(5):501–511
4. Rushton JL, Forcier M, Schectman RM. Epidemiology of depressive symptoms in the National Longitudinal Study of Adolescent Health. *J Am Acad Child Adolesc Psychiatry.* 2002;41(2):199–205
5. Castro FG, Brook JS, Brook DW, Rubenstone E. Paternal, perceived maternal, and youth risk factors as predictors of youth stage of substance use: a longitudinal study. *J Addict Dis.* 2006;25(2):65–75
6. Ream GL, Savin-Williams RC. Reciprocal associations between adolescent sexual activity and quality of youth-parent interactions. *J Fam Psychol.* 2005;19(2):171–179
7. Hagan J, Shaw J, Duncan P, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents.* 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008
8. Schor EL, Billingsley MM, Golden AL, et al. Report of the Task Force on the Family. *Pediatrics.* 2003;111(6):1541–1571
9. Coleman WL, Garfield C. Fathers and pediatricians: enhancing men's roles in the care and development of their children. *Pediatrics.* 2004;113(5):1406–1411
10. US Census Bureau. Living arrangements of children under 18 years and marital status of parents, by age, gender, race, and Hispanic origin of the child for all children: 2007 (Table C3). Available at: www.census.gov/population/www/socdemo/hh-fam/cps2007.html. Accessed February 13, 2009
11. Pleck J, Masciadrelli B. Paternal involvement by U.S. residential fathers: levels, sources, and consequences. In: Lamb M, ed. *The Role of the Father in Child Development.* 4th ed. Hoboken, NJ: Wiley; 2004:222–271
12. Lamb M, Tamis-Lemonda C. The role of the father: an introduction. In: Lamb M, ed. *The Role of the Father in Child Development.* 4th ed. Hoboken, NJ: Wiley; 2004:1–31
13. Dittus PJ, Jaccard J, Gordon VV. The impact of African American fathers on adolescent sexual behavior. *J Youth Adolesc.* 1997;26(4):445–465
14. Caldwell CH, Wright JC, Zimmerman MA, Walsemann KA, Williams D, Isichei PAC. Enhancing adolescent health behaviors through strengthening non-resident father-son relationships: a model for intervention with African-American families. *Health Educ Res.* 2004;19(6):644–656
15. Roopnarine J. African American and African Caribbean fathers: level, quality, and meaning of involvement. In: Lamb M, ed. *The Role of the Father in Child Development.* 4th ed. Hoboken, NJ: Wiley; 2004:58–97
16. Dubowitz H, Lane W, Ross K, Vaughan D. The involvement of low-income African American fathers in their children's lives, and the barriers they face. *Ambul Pediatr.* 2004;4(6):505–508
17. Elgar FJ, Mills RS, McGrath PJ, Waschbusch DA, Brownridge DA. Maternal and paternal depressive symptoms and child maladjustment: the mediating role of parental behavior. *J Abnorm Child Psychol.* 2007;35(6):943–955
18. Cummings EM, Keller PS, Davies PT. Towards a family process model of maternal and paternal depressive symptoms: exploring multiple relations with child and family functioning. *J Child Psychol Psychiatry.* 2005;46(5):479–489
19. Kane P, Garber J. The relations among depression in fathers, children's psychopathology, and father-child conflict: a meta-analysis. *Clin Psychol Rev.* 2004;24(3):339–360
20. Bronte-Tinkew J, Moore KA, Matthews G, Carrano J. Symptoms of major depression in a sample of fathers of infants: sociodemographic correlates and links to father involvement. *J Fam Issues.* 2007;28(1):61–99
21. Jacobson KC, Crockett LJ. Parental monitoring and adolescent adjustment: an ecological perspective. *J Res Adolesc.* 2000;10(1):65–97
22. Caldwell C, Rafferty J, Reischl T, Hill De Loney E, Brooks C. Enhancing parenting skills among nonresident African American fathers as a strategy for preventing youth risky behaviors. *Am J Community Psychol.* In press
23. Roberts RE, Sobhan M. Symptoms of depression in adolescence: a comparison of Anglo, African, and Hispanic Americans. *J Youth Adolesc.* 1992;21(6):639–651

24. Radloff LS. The CES-D Scale: a self-report depression scale for research in the general population. *Appl Psychol Meas.* 1977;1(3):385–401
25. Zich JM, Attkisson CC, Greenfield TK. Screening for depression in primary care clinics: the CES-D and the BDI. *Int J Psychiatry Med.* 1990;20(3):259–277
26. Acock AC. Working with missing values. *J Marriage Fam.* 2005;67(4):1012–1028
27. Royston P. Multiple imputation of missing values: update. *Stata J.* 2005;5(2):188–201
28. Meadows SO, McLanahan SS, Brooks-Gunn J. Parental depression and anxiety and early childhood behavior problems across family types. *J Marriage Fam.* 2007;69(5):1162–1177
29. Lovejoy MC, Graczyk PA, O'Hare E, Neuman G. Maternal depression and parenting behavior: a meta-analytic review. *Clin Psychol Rev.* 2000;20(5):561–592
30. Weissman MM, Pilowsky DJ, Wickramaratne PJ, et al. Remissions in maternal depression and child psychopathology: a STAR*D-Child report. *JAMA.* 2006;295(12):1389–1398
31. Sclar DA, Robison LM, Skaer TL. Ethnicity/race and the diagnosis of depression and use of antidepressants by adults in the United States. *Int Clin Psychopharmacol.* 2008;23(2):106–109
32. Neighbors HW, Caldwell C, Williams DR, et al. Race, ethnicity, and the use of services for mental disorders: results from the National Survey of American Life. *Arch Gen Psychiatry.* 2007;64(4):485–494
33. Williams DR, Gonzalez HM, Neighbors H, et al. Prevalence and distribution of major depressive disorder in African Americans, Caribbean African Americans, and non-Hispanic whites: results from the National Survey of American Life. *Arch Gen Psychiatry.* 2007;64(3):305–315
34. US Department of Health and Human Services. Promoting responsible fatherhood: federal resource site. Available at: http://fatherhood.hhs.gov. Accessed January 12, 2009
35. Barnow B, Stapleton D. *An Evaluability Assessment of Responsible Fatherhood Programs: Final Report.* Washington, DC: Department of Health and Human Services; 1997

PFOs May Be Better Left Open: *Incidental repair of patent foramen ovales during unrelated heart surgery did not increase patients' life span and resulted in a 2½ times greater risk of postoperative stroke, according to an article published this past summer in* JAMA *(Krasuski RA et al.* JAMA*, 2009;302:290–297). The fact that cardiologists and cardiac surgeons were unaware of this prior to its publication got some attention in the national press (Yao L.* The Wall Street Journal*, July 17, 2009) and captured our interest too.*

Noted by JFL, MD

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