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Primary Care Pediatricians' Roles and Perceived Responsibilities in the Identification and Management of Maternal Depression

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ABSTRACT. *Objective.* **To describe the attitudes and approaches of primary care pediatricians in the identification and management of postpartum and other maternal depression.**

Methods. **A national survey of randomly selected primary care pediatricians reported their management of the last recalled case of postpartum or other maternal depression, barriers to care, their attitudes about recognition and management, confidence in skills, and their willingness to implement new strategies to improve care.**

Results. **Of 888 eligible primary care pediatricians, 508 (57%) completed surveys. Of these pediatricians, 57% felt responsible for recognizing maternal depression. In their last recalled case, respondents used an unstructured approach for identification based primarily on maternal appearance or complaints. When maternal depression was suspected, additional assessment of any kind was done by 48% of pediatricians. Although 7% perceived themselves to be responsible for treating maternal depression, pediatricians indicated they had an active role in 66% of cases in which they provided 1 or more brief interventions. The major barriers that were believed to limit their diagnosis or management were insufficient time for adequate history (70%) or education/counseling (73%) and insufficient training/knowledge to diagnose/counsel (64%) or treat (48%). Responses with cases involving maternal depression and the specific situation of postpartum depression were very similar. Forty-five percent were confident in their ability to diagnose maternal depression, whereas 32% were confident in their ability to diagnose postpartum depression. Nearly one fourth of pediatricians were willing to change their approach to identification. Pediatricians who felt responsible for recognizing maternal depression were more likely to assess more completely and intervene in cases as well as consider implementing change in their practice.**

Conclusion. **Pediatricians' current attitudes and skills that are relevant to maternal depression limit their ability to play an effective role in recognition and management. Future interventions need to address each of these issues. Educational efforts and new clinical approaches may be more effective with those who feel responsible and willing to change their approach to maternal depression.** *Pediatrics* **2002;110:1169–1176;** ***continuing medical education, primary care, depressive symptoms, depression, family, mental health services, pediatric providers, postpartum, maternal.***

ABBREVIATION. AAP, American Academy of Pediatrics.

Both maternal depressive symptoms and depressive disorders may have a substantial impact on a child's health and experience within the family. Postpartum and other maternal depression are accompanied by altered emotional attachment and substantial changes in mother-child interaction with physiologic and cognitive changes in the child.[1–5] Maternal depression is also associated with alterations in the mother's parenting expectations, confidence, and skills.[2,4,6] The impact on a child's life can be long lasting. Years later, depressed mothers' sons are more prone to behavioral problems and impaired cognitive function, whereas their daughters are more likely to experience depression themselves.[3,7] Although it is difficult to determine the role of environmental and genetic factors in children's outcomes, maternal depressive symptoms are being shown to be an important mediating factor in the role of adverse life events and child behavior.[8,9]

The magnitude of the problem of maternal depression is clearer now than in the past. The point prevalence of depressive symptoms in studies in pediatric and community settings ranges from 12% to 47% among mothers of young children and ranges from 10% to 20% in the postpartum period.[10–16] Although depression is more common among younger, low-income, isolated, or stressed parents, it is still an important issue for mothers in all social strata, particularly when their children are young.

Experts have advocated that primary care clinicians become more involved in the management of depression.[17] Recently, the US Preventive Services Task Force recommended adult depression brief screening by health providers.[18] Within the field of pediatrics, new guidelines about health care have also emphasized that pediatricians should play a role in detecting family problems, especially maternal depression.[19] Improving maternal depressive symptoms has resulted in improved behavioral outcomes for both mother and child.[20] In adult populations, the primary care role in the management of depression

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ranges from simple detection and referral to comprehensive management.[21] Although not the mother's provider, primary care pediatricians have a variety of different options to assist mothers who are depressed.

Although the extent of the problem is well described, few mothers receive services for depression. In part, this deficiency is traceable to the lack of contact between young mothers and organized health or mental health services for women.[22,23] For many mothers, the frequent visits with the pediatricians early in life are their most consistent ongoing contact with health care providers.

Little is known about clinician knowledge, attitudes, or behaviors regarding maternal depression in pediatric primary care practice settings. In an urban inner-city setting, pediatric providers identified only 29% of mothers with significant depressive symptom.[24] No studies were found about pediatrician activities once they identified maternal depression. Previous studies have examined pediatric clinician behaviors, attitudes, and practices for childhood and adolescent depression and behavioral problems but not for maternal depression.[25,26] Therefore, we have undertaken a descriptive study of primary care pediatricians' attitudes and current practices regarding the recognition and management of maternal depression. A national survey of pediatricians was conducted to address 5 specific areas: 1) the self-perceived roles and responsibilities of primary care pediatricians in the recognition and treatment of postpartum and other maternal depression, 2) their self-reported identification and management practices, 3) their confidence in diagnostic and treatment skills, 4) existing barriers to recognition and management, and 5) their willingness to use education or new approaches for recognition or management. Although we suspected that pediatricians who felt responsible for maternal depression might behave differently, there were insufficient data from previous literature to establish this as a primary hypothesis.

METHODS

The study design was a cross-sectional survey of US primary care pediatricians. The survey focused on the identification and management of depression in families; one third of the pediatricians received questionnaires with sections that focused on child or adolescent depression, one third about postpartum depression, and one third about all types of maternal depression. We used both clinical scenarios for mothers because postpartum depression is a well-known entity that occurs during a defined time in which pediatricians' involvement might be different than with depression in other mothers. Results on the child and adolescent depression portion of the survey have been previously published.[25] This report describes only the pediatricians who completed surveys that focused on postpartum or other maternal depression.

The survey was mailed to 1994 randomly selected pediatricians provided by the American Academy of Pediatrics (AAP; excluding resident, emeritus, and subspecialty members) from the Academy member list. Pediatricians were asked to complete the survey only if in active primary care practice care (ie, working at least half-time seeing primary care patients in the ambulatory setting). A telephone reminder followed 2 follow-up mailings. A total of 501 pediatricians who indicated that they were not in primary care were classified as ineligible. Another 160 were classified as ineligible when they could not be reached through 3 mailings, had no forwarding address, and did not answer their business telephone twice. Of the 1333 eligible pediatricians, 888 received the maternal or postpartum survey format. The remainder received the child/adolescent survey format.

The 45-item questionnaire was adapted for pediatricians from an adult primary care provider survey of depression management developed for use with family physicians, internists, and obstetricians and gynecologists.[21] Details of survey development and piloting have been previously described.[25] The format of recalling their last case was chosen to gain more specific identification and management data and limit overgeneralization and social desirability in responses. For the recalled last case of maternal depression, all surveys queried about barriers that limited their recognition or intervention. Additional questions not linked to their last case asked about perceived responsibility for recognition or treatment, usual patient education provided, physician confidence in their skills, and willingness to change management or participate in continuing medical education. Because the use of screening questionnaires has been 1 approach advocated for detecting maternal depression,[24,27] there were also items on whether the respondent used screening questionnaires for any condition and whether these were used for family psychosocial issues.

Fifty-seven percent ($n = 508$) of the 888 eligible pediatricians returned the maternal or postpartum depression survey. Fifty of the eligible nonrespondents were randomly selected, contacted by telephone, and asked to complete the attitude and demographic sections of the survey. Thirty-five of this nonrespondent group completed this part of the survey by telephone. The attitudes and demographics of this nonrespondent group were not significantly different from those who returned surveys except for being more likely to devote their practice to subspecialty care.

Data were analyzed using the χ^2 and Fisher exact tests for categorical variables and the Student t test for the continuous variable of years in practice. For analysis, 4-point scales were collapsed into 2-part variables (very and mostly confident coded as confident, definitely and probably coded as willing to make changes, strongly agree and agree coded as positive response for responsibility). The collapse of variables occurred after initial analyses showed no difference in analyses between the highest 2 and lowest 2 categories. Because of the use of multiple comparisons, a significance level of $P < .01$ was used in comparative analyses. Significance levels of .01 to .05 are provided only to indicate trends. Because results from the postpartum and other maternal depression surveys were so similar and only occasionally significantly different, they were combined with significant differences noted.

RESULTS

The pediatricians who responded were in practice for a median of 15 years. Thirty-seven percent were women, and 22% had subspecialty training as well. Practice locations were rural in 12%, suburban in 56%, and urban in 32%. Sixteen percent were in solo practice, 60% were in group practice, 11% were in staff model health maintenance organizations, and 13% were in other clinical settings. Thirty-three percent reported that 50% or more of their practice was insured through capitated managed care arrangements. The reported median weekly patient volume was between 100 and 125 patients. Twenty-one percent reported that they used a screening instrument for family psychosocial issues. It was not determined whether screening questionnaires were used on all patients or for specific clinical issues.

Of the 508 respondents, 117 (23%) could not recall a recent case of maternal depression. These 117 pediatricians did not differ from other survey respondents in their demographic characteristics or other survey responses. Of the 391 recalled cases of maternal depression, 7% of the mothers were younger than 21 years, 57% were ages 21 to 30 years, 30% were ages 31 to 40 years, 5% were ages 41 to 50 years, and 1% (4 cases) had no age reported. Fifty-two percent

TABLE 1. Pediatricians' Perceived Roles in Psychosocial/Mental Health Issues Comparing Pediatricians Overall and by Perceived Responsibility for Maternal Depression

It Is My Responsibility to	All Pediatricians (n = 508)	Pediatricians Responsible for Maternal Depression (n = 290, 57%)	Pediatricians Not Responsible for Maternal Depression (n = 218, 43%)
Detect sexual abuse in patients	95%	98%	91%*
Recognize learning/school problems	91%	95%	91%*
Recognize family problems related to divorce	86%	93%	77%†
Detect domestic violence in the family	84%	94%	71%†
Treat learning/school problems	62%	65%	59%
Treat family problems relating to divorce	40%	47%	29%†
Treat maternal depression	7%	11%	1%†

* $P < .0001$, χ^2 responsible versus not responsible.
† $P < .001$, χ^2 responsible versus not responsible.

of the cases were described as a depression level of mild, 45% as moderate, and 2% as severe.

There were no significant differences in pediatrician or practice characteristics between pediatricians who completed postpartum or other maternal depression survey formats. The number of mothers identified with depression within the past month was unrelated to the volume of patients seen in the practice. Although practices had a wide variety of mental health professionals on site, 29% had a psychiatrist, psychologist, or family therapist available.

Pediatricians' Attitudes About Their Role in Maternal Depression

The survey explored pediatricians' attitudes about their role in recognizing and treating maternal depression as well as other common psychosocial issues involving the family. Fifty-seven percent of pediatricians believed that it was their responsibility to recognize maternal depression. These pediatricians were more likely also to feel responsible for other child and family psychosocial issues (see Table 1). Perceived responsibility for maternal depression did not vary by gender, years in practice, gender and years in practice, practice structure, or the presence of an on-site mental health professional. Specific aspects where reported management, confidence in their skills, or willingness to change differed by providers' perception of their role in recognizing maternal depression are reported in the following sections.

Reported Management: Identification and Assessment of Maternal Depression

The most common cues used to identify maternal depression in pediatricians' last case are summarized in Table 2. Pediatricians predominantly used the child's problems or mother's behaviors, appearance, or complaints in the visit and seldom suspected depression by family history or direct introduction of the issues by the mother. It was rare to suspect depression through family history or routine inquiry about symptoms, even in the postpartum period when the family is seen often. The most common diagnostic approach used in cases when depression was recognized was the overall impression (58%) or impression plus inquiry about 1 or 2 symptoms (37%). Four percent of pediatricians used formal diagnostic criteria, and none used a screening questionnaire as the method of recognition to detect their last case. Among those who recalled a case of maternal depression, 48% reported that they then assessed any of the specific symptoms and contributing factors summarized in Table 3. Inquiry about the mother's previous mental health and psychosocial problems and determination if a support person or network was available were more likely with postpartum depression than with maternal depression overall ($P < .01$).

Pediatricians who felt responsible for recognizing maternal depression were more likely than those who did not feel responsible to assess suicide risk in both the last postpartum depression (31% vs 17%; $P < .04$) and other maternal depression cases (16% vs 2%; $P < .01$). The pediatricians who felt responsible for recognition of maternal depression were somewhat more likely to evaluate functional impairment (57% vs 36%; $P < .05$) and to determine the supports that were available (69% vs 48%; $P < .05$) in the last recalled maternal depression cases.

Reported Management: Interventions With Maternal Depression

When asked whether they told the mother in the last case that they thought she was depressed, 32% of pediatricians reported that they discussed the problem using the term depression, 40% discussed the problem without the label of depression, and 28% did not discuss it at all. Perceived responsibility did not influence whether they discussed the diagnosis in postpartum cases. For other maternal depression, pediatricians who felt responsible for recognition were more likely to discuss the diagnosis (74% discussed if responsible and 54% if felt not responsible; $P < .01$)

Pediatricians also reported specific ways in which they intervened in their last case (Table 4). Aside from referrals, 66% of pediatricians reported that they provided a variety of other brief interventions. Pediatricians who felt responsible for recognizing maternal depression were more likely to provide specific brief interventions (71% if felt responsible vs 44% if did not feel responsible; $P < .01$). The specific interventions provided were alike for postpartum and other maternal depression with the exception that pediatricians were more likely to refer mothers with postpartum depression to the mother's own

TABLE 2. Proportion of Pediatricians Who Used Various Cues to Recognize Depression in Their Last Recalled Case of Maternal and Postpartum Depression ($n = 391$)

Cues Used (Multiple Answers Allowed)	
Mother behavior, appearance, complaints*	81%
Depression suspected because of family dynamics†	33%
Child's presenting clinical problem may be associated with maternal depression	30%
Mother introduced topic directly	17%
History of depression or mental illness	12%
Mother said currently being treated for depression	9%
Mother routinely asked about depressive symptoms	8%
Family member concerned about depression	7%
History of alcohol/drug use or self-destructive behavior‡	4%

* Postpartum depression 86% versus maternal depression 78%; $P < .05$, χ^2.
† Postpartum depression 26% versus maternal depression 39%; $P < .01$, χ^2.
‡ Postpartum depression 2% versus maternal depression 7%; $P < .05$, χ^2.

TABLE 3. Specific Items Assessed by the Pediatricians ($n = 185$) Who Performed Additional Assessment in Their Last Recalled Case of Postpartum or Other Maternal Depression

Issue Assessed	
Somatic symptoms of depression	60%
Support person or network available*	71%
Impairment in function	46%
Mother's history of psychiatric disorder	30%
Mother's history of mental health or psychosocial issues†	29%
Risk for suicide	26%
Risk for being victim of abuse	26%
Medical conditions causing depression	26%
Evidence of alcohol/substance abuse	19%
Mother's history of sexual/physical abuse	8%
Loss of loved one	7%

* Postpartum depression 81% versus maternal depression 62%; $P < .01$, χ^2.
† Postpartum depression 38% versus maternal depression 20%; $P < .01$, χ^2.

provider (28% postpartum vs 17% maternal depression; $P < .01$).

Barriers That Limit Care

The physician, organizational, and patient barriers that limited pediatricians' ability to recognize or intervene in the last case recalled are summarized in Table 5. These barriers did not differ significantly with cases of postpartum or other maternal depression or by perceived responsibility. The most common barriers were the organizational issues of inadequate time for history or counseling and inadequate training and knowledge about diagnostic criteria and treatment. Maternal and patient barriers were less often cited as limiting their involvement. Although time limitations are difficult to change, the lack of skills and knowledge limiting pediatrician's role in management are potentially amenable to change.

Confidence in Their Skills

After providing information about their last case, pediatricians were asked about how confident they were in their ability to diagnose maternal depression.

TABLE 4. Depression Management for Last Recalled Case by Pediatricians ($n = 391$)

Management Strategy (Multiple Answers Allowed)	
Refer to mental health	29%
Refer to mother's primary care provider*	22%
Counseling by pediatrician	
<5 min	32%
≥5 min	18%
Recommend lifestyle changes to help	27%
Involve family members†	18%
Schedule with pediatrician more often	18%
Refer to self-help or support group	13%
Treat with medication	2%
Watchful waiting only	14%
Not involved in management	22%

* Postpartum depression 28% versus maternal depression 17%; $P < .01$, χ^2.
† Postpartum depression 22% versus maternal depression 14%; $P < .05$, χ^2.

Among pediatricians whose surveys queried about their recall of maternal depression, 45% were confident in their ability to diagnosis maternal depression. Of pediatricians with postpartum depression surveys, 31% reported they were confident that they could diagnosis postpartum depression. Not surprising, very few had confidence in their treatment skills with these adults. Seven percent felt confident that they could treat with counseling, 3% felt confident that they could treat with medication, and 5% felt confident in managing care overall.

Although they lacked confidence in their ability to intervene formally, pediatricians still perceived themselves as having an educational role with depressed mothers. When asked to describe their usual patient education activities with a new case of suspected maternal or postpartum depression, three quarters of pediatricians reported that they provided mothers patient education through discussion or written materials. Those who felt responsible for recognition were more likely to provide this patient education (83% vs 64%; $P < .001$) as well as being more likely to discuss cause (54% vs 35%; $P < .001$), prognosis (35% vs 15%), and treatment options (78% vs 60%; $P < .001$).

Changes in the Future

Pediatricians were queried about 1) their readiness to change the way they recognize or manage depression in mothers and 2) how likely they would be to implement specific changes in the next 6 months. Twenty-seven percent of pediatricians who recalled details of their last case of postpartum depression responded afterward that they were thinking of changing their approach to recognition or management of postpartum depression. Among those who recalled any case of maternal depression, 21% were thinking of changing their approach with maternal depression. The specific strategies that pediatricians were interested in implementing were similar for both types of depression. Table 6 shows that although pediatricians were not interested in implementing many of these strategies to improve their care of maternal depression, the pediatricians who felt responsible for recognizing maternal depression

TABLE 5. Barriers That Limited Pediatricians' Ability to Diagnose or Intervene in the Last Recalled Case of Maternal or Postpartum Depression (n = 391)

	Limited Somewhat or a Great Deal
Organizational barriers	
Inadequate time to provide counseling/education	73%
Appointment time too short for adequate history	70%
Mother's insurance limited treatment options	29%
Mental health professionals not affordable	28%
Unavailability of mental health resources	20%
Difficult paperwork/authorization procedures	18%
Poor reimbursement for treatment	14%
Physician financial disincentives for mental health referrals	7%
Physician barriers	
Incomplete training to diagnose/counsel	64%
Incomplete knowledge of treatment for depression	48%
Incomplete knowledge of *DSM-IV* diagnostic criteria	44%
Lack of effective treatments	19%
Maternal and patient barriers	
Medical problems of the child were more pressing	37%
Symptoms explained by other medical illness	26%
Mother reluctant to accept diagnosis	25%
Mother reluctant to see mental health professional	23%
Mother reluctant to begin antidepressant medication	15%

DSM-IV indicates *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.*

were more willing to seek education and change their clinical approach.

DISCUSSION

This survey suggests that many pediatricians are not engaged in either recognizing or managing maternal depression in the postpartum period or at other times. Twenty-three percent were unable to recall a mother with depression, and 43% did not believe that it was their responsibility to recognize maternal depression. To help mothers and their children, pediatricians first need to perceive this problem to be their responsibility. Fox et al[28] showed that personal beliefs and attitudes, including commitment and responsibility for a problem, are key elements that influence physician clinical behaviors. In fact, pediatricians who felt responsible for recognizing maternal depression were more likely to be confident in their skills, involved in assessment and management of maternal depression, and willing to begin to change their management.

Once a clinician suspects depression, having appropriate knowledge and skills allows them to respond more effectively. Pediatricians seem to be poorly prepared for the task, because the majority lacked confidence in their ability that they could diagnose maternal depression, and they reported that incomplete knowledge and training were major factors that limited their involvement. In light of this, the subsequent findings that they provided limited assessments, discussion, and patient education for their recalled cases are not surprising. Although inadequate time is an important barrier for all primary care clinicians,[21] pediatricians with inadequate skills and knowledge base are likely to use their limited time less well.

Our findings raise important issues. First, why should pediatricians play a role in the mental health of the mothers of their patients? Pediatricians' treatment of the child's clinical problems may not be successful if accompanying depression in the mother goes unrecognized. These children are at greater risk of having sleep issues, colic, delayed infant development, temperament difficulties, and behavioral and school problems.[29–32] As a result, children of depressed mothers have more office and emergency department visits.[33] Recently, maternal depressive symptoms have also been associated with poorer prevention practices (car seat use, electrical outlet covers, ipecac) and less daily reading daily to the child.[34] Without attention to the sometimes subtle issue of depression, even advice in a health maintenance visit is less likely to be effective.

What might pediatricians' role be? Although not the mother's provider, pediatricians may have a role as the only health care provider with whom young mothers have frequent contact. Mothers are comfortable with pediatricians' inquiring about their health and well-being.[22] They also may not have recognized their depression or have sought help elsewhere. Without clinician intervention, this treatable condition can be a chronic ongoing burden for years. Although specific guidance about assessment and management has been developed for adult primary care providers,[15] discussion of the role of pediatricians has focused primarily on screening or inquiry about maternal depression.[24,27,32] In adult studies of effective primary care management of depression, identification has been shown to be a more complex process.[35] The pediatric role in caring for maternal depression could potentially have 2 steps: identifying mothers who one suspects are depressed and briefly assessing the severity and impact to guide one in what steps to take next. Possible pediatric roles, although not a substitute for a mother's adult provider, can include patient education, supportive listening, and practical suggestions that enhance parenting and reduce stress. In addition, the pediatrician can help the mother with the decision to seek additional evaluation and treatment. Treatment can occur

TABLE 6. Pediatricians' Interest in New Strategies to Enhance Care of Maternal Depression

Very Likely or Almost Certainly Would Implement in Next 6 Months	Responsible for Recognizing (n = 289)	Not Responsible for Recognizing (n = 214)
Self-study, guided reading, if available†	31%	19%
Attend continuing medical education, if available*	20%	13%
Ask about depression more‡	46%	28%
Consult mental health more	42%	34%
Use depression screening*	11%	5%
Use formal diagnostic criteria	13%	8%
Prescribe medication more often	3%	1%

* $P < .05$, χ^2.
† $P < .01$, χ^2.
‡ $P < .001$, χ^2.

either on site when expertise is available or with referral to appropriate adult services.

How can the interested pediatrician enhance care? Major changes in pediatrician activities are not needed. Our study's findings about how pediatricians currently perform can assist pediatricians who wish to change their approach to maternal depression. We found that most pediatricians used an unstructured approach to identification. They relied on whether a mother volunteered or looked depressed, rather than on screeners or routine inquiry as cues to diagnosis. This method has been shown to detect only the most severe and chronic patients even when done by a psychologist.[36] Mothers with significant depressive symptoms can still rally and present a public presence that may not seem depressed. This may help explain why previously pediatricians have been shown to have low rates of detection of maternal depression. Even experienced pediatricians who know their patients identified only 37% of mothers with significant depressive symptoms.[24] Underrecognition is likely in our study as well because in a typical work month, 46% of pediatricians reported that they recognized no new cases of postpartum depression and 35% had no new cases of other types of maternal depression. Pediatricians may assume that it is too time-consuming to identify who has depression. However, research has shown that lengthy inquiry is not needed to identify depression. A 3-item screening questionnaire performed as well as a longer 8-item measure in detecting maternal depression.[14] The adult depression literature has recently shown that inquiry with only 2 question (During the past month, have you often been bothered by feeling down, depressed, or hopeless? During the past month, have you often been bothered by having little interest or pleasure in doing things?) yields similar detection rates as longer questionnaires.[37] This 2-question screener, with appropriate follow-up, has now been endorsed as a routine preventive health component by the US Preventive Task Force and could be used by pediatricians as well.[18] Once depression is suspected, a few questions by the pediatrician can clarify the severity of depression and guide advice and referral. Adult primary care providers who are effective in identifying depression focus their inquiry on history, functional impairment, and severity of symptoms[36] and use evaluation tools that make the process efficient.[38] We found that pediatricians assessed any of these specific issues less than half the time.

Finally, pediatricians who are willing to discuss issues of depression can help mothers understand how their mood might affect their parenting and contribute to their child's problems. In our study, many pediatricians, particularly when they did not perceive themselves as responsible for recognizing depression in mothers, were vague in their discussion with patients when depression was recognized. Only 37% of pediatricians used the term "depression" in their discussion. Common reasons given for not discussing the problem include discussion not indicated (14%), problem is self-limited, (24%) and not appropriate because not mother's doctor (24%). During discussion, pediatricians can also help improve a mother's outcome if they assist with infant sleep problems,[39] child temperament issues,[40] social isolation,[41] and family stress.[32]

There are certain strengths and limitations in our study. This is the first study to explore in detail how pediatricians approach the identification and management of maternal depression and the barriers to their involvement. It is based on a national sample of practicing primary care pediatricians. Inquiry about their last case seen is more realistic and helps reduce the overestimation that occurs with inquiry about typical behavior. The 57% response rate is a potential limitation. Response rates have decreased recently for physician surveys. We found in calling practices that general office policies about not completing surveys as a result of many commercial surveys rather than individual pediatrician noncompliance was the most common reason for not responding. In addition, in our follow-up of 10% of the eligible nonrespondents, we found that subspecialists were more likely not to return the form indicating that they did not practice primary care. This would have increased our population denominator of eligible primary care pediatricians and have the effect of falsely reducing our response rate from primary care pediatricians. We have been able to compare some of our respondent demographics to the results of an AAP survey in 2000 of pediatricians in general pediatrics >50% of the time. We found that our survey population was comparable in practice type, subspecialty training, and years in practice, but our survey had fewer women respondents (37% vs 49%) and practice locations were slightly more likely to be suburban than

urban (suburban 56% vs 43% AAP, urban 32% vs 18% urban inner city and 24% not inner city urban AAP, rural 12% vs 14% AAP; AAP Periodic Survey of Fellows, #40, 1998, provided by AAP Division of Health Policy Research). One potential bias also to consider is whether pediatricians who are interested in maternal depression might have been more likely to return surveys thus overestimating responsibility rates. However, our survey of nonrespondents showed the same rates for perceived responsibilities for recognition and treatment of maternal depression as this survey's respondents.

Our study raises broader system-level issues that are important to consider. Why do so many pediatricians believe that it is not their responsibility to recognize maternal depression? We need to learn more about what contributes to feeling responsible and how pediatricians' perceived responsibilities influence care. We suspect that with current skill levels and practice structures, pediatricians may believe that dealing with maternal depression is like opening "Pandora's Box," an issue too confusing and complex for which they are unwilling even to begin to take responsibility. If this is true, then the approach in the past of only exhorting pediatricians to do more to identify is not likely to be effective in improving care. The rationale for being involved in family issues and evidence on the clinical impact of maternal depression will first need to be more clearly conveyed in the medical literature, training programs, and continuing education settings. Initial efforts to enhance care may need to begin with those more family-oriented pediatricians who already feel responsible for maternal depression.

What new approaches to physician education and office care need to be developed? It is crucial that new realistic models of providing skills and supports in the context of busy practice be developed if pediatricians are to take on a role in identifying and helping depressed mothers. A variety of approaches from algorithms, office systems, and collaborative care models with mental health providers could be used. Research in busy adult primary care settings has resulted in successful interventions that could be adapted for use in pediatric settings.[38,42] Because similar deficits in knowledge and skills exist in pediatricians' management of child and adolescent depression,[25] it may be appropriate to design interventions to address all aspects of depression in pediatric settings. Studies of the effectiveness of interventions compared with other care models will be important.

CONCLUSION

This study shows that there are important attitudes and perceived barriers associated with pediatricians' limited identification and management activities regarding maternal depression. These attitudinal issues and barriers have begun to be surmounted in other primary care fields. It is time for future efforts to be directed at clarification of the pediatrician's role in maternal issues; improving education; and studying new, efficient ways for pediatricians to identify and respond to maternal depression.

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HIRED GUNS

"While many medical and specialty societies have policies governing expert testimony by members, few of those policies include the threat of sanctions against those guilty of unprofessional testimony. Even when they do, enforcement is rare.

The American Association of Neurological Surgeons (AANS) is one of the only groups that vigorously enforces its guidelines. In response to complaints over the past 20 years, the AANS has reviewed expert testimony by about 50 members—all of whom had testified for plaintiffs. The society sanctioned about 20 of them, usually by censure or suspension. It reported the suspensions and expulsions to the National Practitioner Data Bank. . . According to American Medical Association (AMA) policy, physicians who give false testimony should be subject to peer review by their medical or specialty societies, and, if appropriate, referred to their state medical boards for possible discipline. Says AMA President Donald Palmisano: 'The AMA believes that physician expert testimony constitutes the practice of medicine, and the practice of medicine should be subject to peer review. We are not opposed to minority opinion. We don't want false testimony.'"

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Noted by JFL, MD

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