

# *In the Moment: Attitudinal Measure of Pediatrician Management of Maternal Depression*

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**Objective.**—Pediatricians are in a good position to identify women who struggle with depression, but studies show low rates of pediatrician identification and management. It is likely that pediatricians' management of maternal depression may vary on the basis of their attitudes, but no instrument has been developed to measure these attitudes. We sought to develop a measure of pediatricians' attitudes about managing maternal depression and to identify characteristics associated with pediatricians' attitudes about managing maternal depression.

**Methods.**—We conducted a cross-sectional analysis of data provided by 651 practicing, nontrainee pediatricians (response rate 57.5%) surveyed through an American Academy of Pediatrics 2004 Periodic Survey. An exploratory principal components analysis was used to investigate the interrelationships among the attitudinal items. Multivariable linear regression was used to assess the adjusted associations between physician and practice characteristics and attitudes.

**Results.**—The attitudinal measure consisted of 3 subscales: acknowledging maternal depression, perceptions of mothers' beliefs, and treating maternal depression. Clinical approaches (eg, interest in further education on identifying or treating maternal depression) and training and work characteristics were significantly related to pediatricians' attitudes; patient characteristics (eg, type of insurance and ethnicity/race) were not significantly associated with pediatricians' attitudes.

**Conclusions.**—We developed a measure to assess pediatricians' attitudes about managing maternal depression. The findings from this study can be used to develop and assess interventions that improve pediatricians' attitudes about acknowledging maternal depression, perceptions of mothers' beliefs, and treating maternal depression.

**KEY WORDS:** attitudes; maternal depression; survey

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Maternal depression can have negative consequences for mothers as well as adverse emotional, behavioral, and developmental effects on children.<sup>1–5</sup> However, detection of maternal depression by pediatricians remains low,<sup>6</sup> despite research indicating that most mothers would feel favorably about pediatricians' inquiries about their mood.<sup>7</sup> Furthermore, recommendations from American Academy of Pediatrics' Task Force on the Family to provide family-oriented care supports identifying and initiating referrals for maternal depression.<sup>8</sup>

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Although systemic barriers to identification of maternal depression in primary care are certainly important, little is known about pediatricians' attitudes regarding managing maternal depression. A study by Olson and colleagues<sup>1</sup> found that over half of pediatricians (57%) thought it was their role to identify maternal depression, but only 7% expressed being either responsible or confident about treating maternal depression. In this study, pediatricians who felt more responsible were more likely to be confident in their skills to recognize maternal depression. Gerrity and colleagues<sup>9</sup> developed a 4-item Perceived Self-Efficacy in Diagnosing and Treating Depression scale for primary care physicians, which also revealed that few pediatricians (3%) were very confident about caring for maternal depression ( $P < .001$ ).

Behavior change models suggest that attitudes influence physicians' behaviors.<sup>10,11</sup> These models posit that a "cue to action" (eg, a mother with signs of depression) would trigger cognitive constructs or attitudes (eg, confidence in ability to treat, perceived benefits of addressing depression) that would precede intentions and actual behavior (diagnosing, referring, or treating maternal depression).<sup>12,13</sup> These attitudes are influenced by sociodemographic and environmental factors (eg, physician and practice characteristics). For example, pediatricians who are ambivalent about managing maternal depression would benefit from an "attitudinal intervention," one that

addressed their perceived barriers and beliefs. Pediatricians who endorse their role about managing maternal depression would benefit from an intervention to assist them to make behavioral changes (eg, modifying practice environment, identifying mental health resources).

These theories posit that in order to be able to intervene effectively and improve pediatricians' behaviors for managing maternal depression we must first understand practicing pediatricians' perspectives and have a means of assessing these attitudes. However, to date, no instrument has been developed that measures pediatricians' attitudes about managing maternal depression. Therefore, the purpose of this study was to develop a means of measuring pediatricians' attitudes about managing maternal depression as the first step in designing interventions to modify practice. We present exploratory analyses of this scale development, which was part of a larger survey effort. The objectives were to develop attitude subscales to measure pediatricians' attitudes about managing maternal depression and identify physician and practice characteristics associated with pediatricians' attitudes toward managing maternal depression. On the basis of prior research,<sup>1</sup> we expected greater levels of perceived responsibility would correspond to more favorable attitudes about managing maternal depression.

## METHODS

### Survey Administration

The study population for this research consisted of the 50 818 US nonretired members of the American Academy of Pediatrics (AAP). The AAP's Periodic Survey has been conducted 3 to 4 times a year since 1987 and is designed to provide information on current topics to inform policy, develop new initiatives, or evaluate current projects.<sup>14</sup> By using the Periodic Survey initiative, Academy researchers (KO) selected a random sample of 1600 members beginning in March 2004 with a sixth and final mailing in August 2004. The questionnaire was 8 pages in length, contained largely closed-ended questions, had been pre-tested, and was approved by the AAP Institutional Review Board before the initial mailing.

### Survey Questionnaire

Pediatricians were asked about their sociodemographic (age, gender, and race/ethnicity), practice (location, type of practice, availability of mental health resources), and patient (race/ethnicity and insurance of patients) characteristics. Physician work characteristics included years in practice, number of ambulatory visits per week, and percentage of time spent in general pediatrics, which was dichotomized as full-time (100%) versus part-time (<100%) in general pediatrics. Physicians were asked a variety of questions about training in mental health, including whether they had attended a lecture/conference on maternal depression in the past 2 years, completed fellowship training in any child psychosocial area (behavioral/developmental pediatrics, child psychiatry, adolescent medicine, behavioral sciences), and completed training in adult mental health issues/strategies during a residency or

fellowship (training in adult interviewing techniques, DSM diagnostic criteria for adult depression, strategies for managing/treating adult depression and/or adult treatment with antidepressant medication). Respondents were asked about their clinical approach to maternal depression, including whether they or others in their practice provided pediatric mental health services and whether they had an interest in further education about identification or treating/managing maternal depression. Furthermore, pediatricians were asked whether they currently used, or would like to use, any of 12 different methods to address maternal depression in their practice (eg, a team approach with gynecologists, mental health professionals and pediatricians, bulletin boards of information and resources in the waiting room or examination rooms). These items were combined to create a binary variable indicating whether the physician used 2 or more methods to address maternal depression.

We developed a battery of questions about identification and treating/managing maternal depression, which included Gerrity and colleague's<sup>9</sup> confidence items and other questions that were modeled upon the work of others.<sup>15-18</sup> Ten items assessing physicians' attitudes about maternal depression were asked on a 5-point agreement scale (strongly disagree = 1; strongly agree = 5). We assessed the concurrent validity of pediatricians' attitude scales by examining the bivariate relationship between attitudes and perceived responsibility. Perceived responsibility was assessed by response of agreement (disagree, neutral, agree) that pediatricians should be responsible for identifying, referring, and treating maternal depression.

### Sample Weights

Characteristics from the AAP Member list for responders and nonresponders for the overall sample and the nontrainee members have been reported elsewhere.<sup>19</sup> In brief, comparisons of nontrainee responders and nonresponders showed that women, pediatricians under age 40, and fellows and candidate fellows were significantly more likely to respond. To minimize potential bias created by differential survey nonresponse, poststratification sample weights were created such that the mean is unity and the sum of the weights is equal to the sample size. These procedures ensure that the sample is representative of the gender and age distribution of AAP membership, with more weight being given to responses that represented those least likely to respond.

### Statistical Analyses

A weighted exploratory principal components analysis was used to investigate the interrelationships among the 10 attitudinal items. Items indicative of negative attitudes were reverse coded. Scree plot analysis and eigenvalue greater than 1 criteria were used to identify the number of components to retain. Varimax, an orthogonal rotation, was used to facilitate interpretation. Items with a primary loading  $\geq 0.40$  and secondary cross-loadings  $< 0.40$  in the rotated matrix were retained. Internal consistency reliability of each subscale was assessed by Cronbach's alpha.

Attitude subscale scores were calculated by reverse coding the items indicative of negative attitudes and summing the items within each component. Higher scores reflect more favorable attitudes.

Unweighted counts and weighted percentages were used to summarize categorical measures, while weighted means and standard deviations were reported for continuous data. Weighted linear regression was used to assess bivariate associations between the covariates of interest (sociodemographic, training and work, clinical approach, practice, and patient characteristics) and each attitude subscale. Covariates with bivariate associations significant at  $P < .15$  were further explored in multivariable analyses. Weighted multivariable linear regression was used to assess the adjusted associations between the covariates and each of the 3 attitude subscales. The results are summarized via weighted adjusted means and 95% confidence intervals, and the adjusted  $R^2$  is reported. To assess concurrent validity of the attitude subscales, bivariate associations between the attitude subscales and perceived responsibility for identification, referral and treatment/management of maternal depression were examined and unadjusted means are reported. Weighted linear regression analyses were also used to determine whether the associations were statistically significant ( $P < .05$ ), and regression models were also run and adjusted means are reported. SPSS version 14.0 was used for the Principal Components Analysis<sup>20</sup>; all other analyses were performed in SAS version 9.1.3 by using procedures appropriate for survey data.<sup>21</sup>

## RESULTS

### Sample Characteristics

The analytic sample for this study consisted of the 651 fellow nontrainee members who reported being involved in direct patient care and who completed the questions on attitudes about maternal depression. Of the random sample of 1600 pediatricians, 832 or 52% of the members responded with 57.5% of nontrainee members responding. Physicians' sociodemographic, training and work, and clinical approach characteristics are detailed in Table 1. Over half of the participants were women, 72% were white, and 38% were under 40 years of age. Twenty-eight percent had completed fellowship training in any child psychosocial area. Twenty-six percent indicated that during their residency or fellowship, they received any type of training in adult mental health issues/strategies, but fewer than 10% had attended a lecture on maternal depression in the past 2 years. Over half had been in practice for at least 10 years, and 69% practiced full-time in general pediatrics. Sixty-five percent provided mental health services to children. Eighty-three percent were interested in further education on identifying maternal depression, but only 37% were interested in the topic of treating maternal depression. Only 29% said that they used at least 2 methods to address maternal depression.

Practice and patient characteristics are displayed in Table 2. Fourteen percent of the pediatricians practiced in

**Table 1.** Physician Characteristics (n = 651)

Characteristic	n	Weighted %
<b>Sociodemographic</b>		
Age, y		
<40	237	37.7
40–49	193	28.2
50–59	153	23.1
≥60	68	11.0
Female gender	383	52.9
Race/ethnicity		
White	468	72.1
Asian	96	14.7
Other/unknown	87	13.2
Training and work		
Completed fellowship in child mental health area	185	27.9
Training in adult mental health issues/strategies	166	25.8
Attended lecture/conference on maternal depression in past 2 years	61	9.6
Years in practice		
<5	164	26.6
5–9	107	16.7
≥10	364	56.7
Works full-time in general pediatrics	451	69.1
Less than 100 ambulatory visits during a typical week	337	51.8
Clinical approach		
Uses at least 2 methods to address maternal depression	186	28.7
Provides mental health services to children	411	64.9
Interest in further education on identifying maternal depression		
Very interested	230	35.4
Somewhat interested	299	47.1
Not at all interested	108	17.5
Interest in further education on treating maternal depression		
Very interested	79	12.3
Somewhat interested	154	24.3
Not at all interested	401	63.4

\*Numbers may not add to 651 as a result of missing data. \*Training in adult mental health issues/strategies includes adult interviewing techniques, DSM diagnostic criteria for adult depression, strategies for managing/treating depression and/or adult dosing with antidepressants.

rural locations, and the remainder of the sample was split evenly between urban and suburban practices. Thirty-seven percent worked in pediatric group practices. Approximately two-thirds perceived that mental health resources were somewhat or very available in their area. Thirty percent reported that at least 80% of their patients had private insurance, and 36% reported that less than half of their patients were white.

### Pediatricians' Attitudes Regarding Maternal Depression

The most frequently endorsed reason for addressing maternal depression was the belief that advice from a pediatrician is one of the best ways to help mothers seek treatment for their depression (58%), yet not many (10%) believed that pediatricians could be effective in treating maternal depression (Table 3). In terms of pediatricians' perceptions about mothers' interests, few participants (6%) perceived that mothers wanted pediatricians to treat them for their depression. Fourteen percent agreed that

**Table 2.** Practice and Patient Characteristics (n = 651)

Characteristic	N	Weighted %
Practice		
Region of practice		
Northeast	179	27.7
Midwest	134	20.5
South	211	32.3
West	127	19.5
Location of practice		
Urban	272	43.2
Suburban	271	43.3
Rural	84	13.5
Type of practice		
1 or 2 physician	107	16.1
Pediatric group practice	242	37.4
Multispecialty group	72	11.1
Medical school/parent university	62	9.9
Other/unknown	168	25.5
Availability of adult mental health services		
Very available	142	22.6
Somewhat available	243	39.3
Not available/don't know availability	238	38.1
Patient		
Insurance of patients		
≥80% have private insurance	196	30.2
<80% have private insurance	344	52.9
Unknown	111	16.9
Percentage of white patients		
0–24	112	17.1
25–49	123	18.9
50–74	209	33.1
≥75	196	30.9

mothers did not want them to ask about their depression, feared that asking about maternal depression would raise concerns about child protective services, or felt that inquiring about maternal depression was invading a mother's privacy. Only 28% were confident that they could identify maternal depression, yet almost half of participants were confident in their ability to make an effective referral for maternal depression. Few were confident about their ability to treat maternal depression with brief counseling (7%) or medications (5%).

The results of the exploratory principal components analysis yielded 3 subscales: (1) acknowledging maternal depression; (2) perceptions of mothers' beliefs; and (3) treating maternal depression (Table 4). Primary component loadings from the rotated structure ranged from 0.58

to 0.84, and cross-loadings (or secondary loadings) were all <0.40. Respective reliability ratings (Cronbach's alpha) were 0.59, 0.72, and 0.79. The subscale means were, respectively, 9.7 (SD 2.0; range 4–15), 10.6 (SD 2.1; range 4–15), and 7.6 (SD 2.9; range 4–20).

### Association Between Physician/Practice Characteristics and Attitude Subscales

The results of the 3 weighted multivariable linear regression models for each of the attitude subscales are displayed in Table 5. Overall, characteristics most frequently associated with the 3 attitudinal subscales included past and recent training in mental health, interest in further education in identifying and treating maternal depression, and using at least 2 methods to address maternal depression. In addition, white physicians had more favorable perceptions on the mothers' beliefs subscale compared to Asian physicians ( $P < .001$ ) and physicians of nonwhite/non-Asian race/ethnicity ( $P < .01$ ). Covariates significantly related to more favorable attitudes on the treating maternal depression subscale also included work and practice characteristics (eg, working part-time in general pediatrics, fewer ambulatory visits in a typical week, practice in a rural area).

### Association Between Attitudes Regarding Maternal Depression and Perceived Responsibility

Half (59.0%) of the participants believed that pediatricians should be responsible for identification of maternal depression. Most (85.3%) believed that pediatricians should be responsible for referring for maternal depression, and few (5.3%) believed that they should be responsible for treating maternal depression. To assess the concurrent validity of the 3 attitude subscales, associations between attitude subscales and perceived responsibility for identification, referral, and treatment of maternal depression were examined (Table 6). The acknowledging maternal depression and perception of mothers' beliefs subscales were positively and significantly associated with perceived responsibility for identification and referring for maternal depression; those who agreed that pediatricians should be responsible for identifying and referring for maternal depression had significantly higher attitude scores on these subscales. Once adjusted, the association between the perception of mothers' beliefs subscale and

**Table 3.** Pediatricians' Attitudes Regarding Maternal Depression

Attitude	Strongly Agree or Agree,* %
I am confident in my ability to treat maternal depression with medications	5.1
Mothers want me to treat them for their depression	5.6
I am confident in my ability to treat maternal depression with brief counseling	7.1
Pediatricians can be effective in treating maternal depression	9.8
Mothers fear that I will report them to child protection services if they tell me about their depression	13.6
My patients' mothers do not want me to investigate their depression problems	13.8
I feel like I am invading a mother's privacy if I ask about her depression	14.0
I am confident in my ability to identify maternal depression	28.1
I am confident in my ability to make an effective referral for maternal depression	44.6
Advice from a pediatrician is one of the best ways to help mothers seek treatment for their depression	57.6

\*Weighted percentage.

**Table 4.** Weighted Principal Components Analysis of Attitude Items

Attitude Subscale	Primary Loading
Acknowledging Maternal Depression: Cronbach's $\alpha = 0.59$	
I am confident in my ability to make an effective referral for maternal depression	0.81
Advice from a pediatrician is one of the best ways to help mothers seek treatment for their depression	0.73
I am confident in my ability to identify maternal depression	0.58
Perceptions of Mothers' Beliefs: Cronbach's $\alpha = 0.72$	
My patients' mothers do not want me to investigate their depression problems*	0.84
Mothers fear that I will report them to child protection services if they tell me about their depression*	0.77
I feel like I am invading a mother's privacy if I ask about her depression*	0.75
Treating Maternal Depression: Cronbach's $\alpha = 0.79$	
I am confident in my ability to treat maternal depression with medications	0.84
I am confident in my ability to treat maternal depression with brief counseling	0.80
Pediatricians can be effective in treating maternal depression	0.75
Mothers want me to treat them for their depression	0.69

\*Reverse coded.

perceived responsibility for referring for maternal depression was only marginally significant as a result of a confounding effect from the interest in further education variable. The treating maternal depression subscale was positively and significantly associated with perceived responsibility for treating/managing maternal depression.

## DISCUSSION

The purpose of this study was to develop a measure to assess pediatricians' attitudes toward managing maternal depression for later use in practice interventions. Our analyses yielded 3 subscales: acknowledging maternal depression, perceptions of mothers' beliefs, and treating maternal depression. Further, correlates of these 3 subscales differed. Clinical approach characteristics were associated with all 3 subscales, while training characteristics were related to attitudes on subscales about acknowledging and treating maternal depression. Characteristics associated with the treating maternal depression subscale included work and practice characteristics for which we did not have a priori hypotheses; these should be further explored in future studies. Physician race/ethnicity was significantly associated with the subscale attitudes about perceptions of mothers' beliefs; otherwise, sociodemographic and practice characteristics were not significantly associated with pediatricians' attitudes in adjusted analyses. Patient characteristics (race/ethnicity and type of insurance) were not significantly associated with any of the attitude subscales in adjusted analyses.

As hypothesized, pediatricians who held a sense of responsibility toward managing maternal depression had more favorable attitudes toward managing depression. Finally, favorable attitudes about intervening with maternal depression were related to higher levels of interest in training in this area. Thus, like prior work, our findings indicate that attitudes underlie intentions and behaviors about this issue.

In future work, these subscales could be used to help identify subgroups to better target pediatrician interventions to improve management of maternal depression, particularly because it appears that the easily identifiable characteristics, like sociodemographic and practice char-

acteristics, are not related to attitudes. Furthermore, they may be useful in assessing the effect of interventions on behaviors around managing maternal depression. Future validation of these subscales, and examination of associated characteristics, is encouraged.

One possible area to target is use of screening instruments to identify depression. Only about one-quarter of participants felt confident in their ability to identify maternal depression. Our results on pediatrician identification of maternal depression were similar to findings from a previous study<sup>1</sup> in which pediatricians most commonly diagnosed maternal depression by overall impression. Among our study participants, the most common method of identifying maternal depression was by observation/overall impression, and few (5%) reported that they regularly used a screening instrument or checklist. This is of concern because use of depression screening tools (eg, EPDS) significantly increases detection rates over observational methods,<sup>22-25</sup> and identification is the first step toward treatment. Furthermore, a brief maternal depression screen has recently been developed and found to be feasible to use in pediatric settings.<sup>26</sup>

Similar to previous research<sup>1,9</sup> only a small percentage of pediatricians were confident in their ability to treat maternal depression. This finding suggests that there have been few changes in the field in advancing pediatricians' confidence in this area. It is notable that although a majority of pediatricians expressed interest in further training in identifying maternal depression, only about one-third of pediatricians were interested in education about treating maternal depression. It is not surprising that pediatricians may see identification and referral of depressed mothers as part of their role in promoting family functioning, but treatment of the mother may not fit into their view of their role as the child's primary care provider.

To our knowledge, an attitudinal scale to assess physicians' orientation toward maternal depression has not been developed previously. The Physician Belief Scale, a 32-item scale that measures orientation toward psychosocial issues in practice, has been used to measure physician beliefs about psychosocial aspects of patient care.<sup>27</sup> How-

**Table 5.** Associations Between Physician/Practice Characteristics and Attitudes

Covariate	Adjusted Mean (95% Confidence Interval)	P Value
Acknowledging Maternal Depression Subscale (Adjusted $R^2 = .14$ )		
Number of methods used to address maternal depression		<.001
$\geq 2$ methods	10.38 (10.10, 10.67)	
<2 methods	9.44 (9.27, 9.61)	
Training in adult mental health issues/strategies		.01
Yes	10.05 (9.76, 10.34)	
No	9.60 (9.43, 9.77)	
Interest in further education in identifying maternal depression		.01
Very interested	10.07 (9.79, 10.34)	
Somewhat interested/no interest	9.53 (9.34, 9.72)	
Interest in further education in managing/treating maternal depression		.01
Very interested	10.36 (9.88, 10.83)	
Somewhat interested/no interest	9.63 (9.47, 9.79)	
Attended lecture/conference on maternal depression in the past 2 years		.02
Yes, attended lecture/conference	10.14 (9.70, 10.58)	
No, did not attend lecture/conference	9.57 (9.40, 9.74)	
Perception of Mothers' Beliefs Subscale (Adjusted $R^2 = .11$ )		
Number of methods used to address maternal depression		<.001
$\geq 2$ methods	11.08 (10.80, 11.35)	
<2 methods	10.41 (10.21, 10.60)	
Interest in further education in identifying maternal depression		<.001
Very interested	11.13 (10.86, 11.40)	
Somewhat interested/no interest	10.32 (10.12, 10.51)	
Physician provides mental health services to children		<.001
Yes	10.80 (10.60, 11.00)	
No	10.23 (9.96, 10.50)	
Physician's race/ethnicity		<.001
White	10.83 (10.65, 11.01)	
Asian	9.87 (9.40, 10.34)	
Other/unknown	10.16 (9.71, 10.61)	
Treating Maternal Depression Subscale (Adjusted $R^2 = .14$ )		
Number of methods used to address maternal depression		.02
$\geq 2$ methods	8.07 (7.61, 8.53)	
<2 methods	7.45 (7.19, 7.71)	
Training in adult mental health issues/strategies		<.001
Yes	8.29 (7.81, 8.77)	
No	7.37 (7.11, 7.63)	
Interest in further education in managing/treating maternal depression		<.001
Very interested	9.42 (8.72, 10.12)	
Somewhat interested/no interest	7.36 (7.13, 7.59)	
Location of practice		.03
Urban	7.45 (7.11, 7.79)	
Suburban	7.52 (7.17, 7.88)	
Rural	8.36 (7.76, 8.96)	
Time spent in general pediatrics		.02
Full-time	7.38 (7.13, 7.64)	
Part-time	8.12 (7.60, 8.64)	
Number of ambulatory visits in a typical week		.01
$\geq 100$ visits	7.31 (7.00, 7.61)	
<100 visits	7.89 (7.57, 8.21)	

ever, this scale is not specific to maternal depression. Our measure is unique in that it was developed in a large sample of practicing pediatricians. Furthermore, it specifically addresses orientation toward maternal depression, rather than a global assessment of providers' beliefs about psychosocial issues.

There are a few limitations to this study. First, the data were obtained by self-report, so we were not able to substantiate physicians' self-reported identification behaviors. Second, although the response rate for this survey is

comparable to that of other physician surveys,<sup>28-32</sup> our response rate (57.5%) was adequate but not outstanding. Although we created poststratification weights to adjust for differential nonresponse to the survey and analyses were weighted, it is unlikely that we corrected for all nonresponse bias. It is possible that pediatricians that are most interested in this topic were most likely to respond, as reflected by the relatively high proportion of responders who completed a fellowship in a child mental health area (27.9%) or stated that there are mental health resources

**Table 6.** Association Between Attitude Subscales and Perceived Responsibility

Believe Pediatricians Should Be Responsible	Unadjusted Mean (95% CI)	P Value	Adjusted Mean (95% CI)*	P Value
Acknowledging Maternal Depression Subscale				
Identifying		<.001		<.001
Disagree (n = 45)	8.18 (7.56, 8.80)		9.33 (8.63, 10.04)	
Neutral (n = 213)	9.07 (8.82, 9.33)		9.82 (9.44, 10.20)	
Agree (n = 380)	10.26 (10.08, 10.45)		10.68 (10.39, 10.97)	
Referring		<.001		<.001
Disagree (n = 28)	8.03 (7.27, 8.79)		8.94 (8.16, 9.71)	
Neutral (n = 64)	9.17 (8.64, 9.71)		9.98 (9.41, 10.55)	
Agree (n = 542)	9.89 (9.73, 10.05)		10.47 (10.18, 10.76)	
Perception of Mothers' Beliefs				
Identifying		<.001		<.001
Disagree (n = 45)	9.74 (9.13, 10.34)		9.99 (9.38, 10.59)	
Neutral (n = 213)	10.15 (9.88, 10.43)		10.22 (9.96, 10.48)	
Agree (n = 380)	11.01 (10.80, 11.23)		10.89 (10.68, 11.10)	
Referring		.01		.07
Disagree (n = 28)	9.61 (8.81, 10.41)		9.77 (8.93, 10.61)	
Neutral (n = 64)	10.28 (9.74, 10.82)		10.35 (9.82, 10.89)	
Agree (n = 542)	10.75 (10.57, 10.93)		10.69 (10.52, 10.86)	
Treating Maternal Depression				
Treating/managing		<.001		<.001
Disagree (n = 486)	7.16 (6.91, 7.41)		7.30 (7.04, 7.55)	
Neutral (n = 112)	8.80 (8.30, 9.29)		8.36 (7.88, 8.84)	
Agree (n = 34)	9.77 (8.65, 10.89)		9.29 (8.18, 10.41)	

\*Adjusted for covariates shown in Table 5. 95% CI indicates 95% confidence interval.

(61.9%) “somewhat” or “very” available to them. Third, the adjusted  $R^2$  statistic is small (0.11–0.14), indicating that there are other covariates that were not assessed that may help explain the variation in attitude scores. Fourth, only 2 of the 3 subscales exceeded the 0.70 internal consistency threshold,<sup>33</sup> most probably due to the small number of items comprising each subscale. Although the original study was not designed as a scale development study, we have been able to illustrate attitudinal constructs about maternal depression that we expect can inform future work.

In summary, through this study, we developed 3 subscales of pediatricians’ attitudes toward managing maternal depression. These subscales can be used to help target interventions to improve pediatricians’ specific attitudinal barriers toward managing maternal depression and assess the efficacy of interventions aimed at intervening with pediatricians’ underlying attitudes, which will promote better diagnostic and treatment practice in this area.

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