Massachusetts Child Psychiatry Access Program for Moms

Utilization and Quality Assessment

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OBJECTIVE: To describe the utilization and quality assessment of a population-based program to help health care providers address mental health and substance use disorders among pregnant and postpartum women, the Massachusetts Child Psychiatry Access Program for Moms (MCPAP for Moms).

METHODS: The Massachusetts Child Psychiatry Access Program for Moms builds health care providers' capacity to address perinatal mental health and substance use disorders through 1) trainings and toolkits, 2) telephonic access to perinatal psychiatric consultation, and 3) facilitating referral to community resources. Clinical encounter data were collected during telephone consultations. Focus groups were conducted with health care providers and staff from enrolled practices. In-depth interviews were conducted with patients served by the practices that participated in the focus groups. Transcribed interviews were analyzed by two researchers using an iterative, interpretive process with a grounded theory framework.

RESULTS: In the first 3.5 years, MCPAP for Moms enrolled 145 obstetric practices, conducted 145 trainings for 1,174 health care providers, and served 3,699 women. Of telephone consultations provided, 42% were with obstetric care providers–midwives and 16% with psychiatrists. Health care providers perceived that MCPAP for Moms facilitates health care providers detecting and addressing depression and women disclosing symptoms, seeking help, and initiating treatment. Obstetric practices reported that they need additional support to more proactively address and further improve depression care.

CONCLUSION: The high volume of encounters, sustained utilization over 3.5 years, and qualitative themes identified from health care providers and patients demonstrate that MCPAP for Moms is a feasible, acceptable, and sustainable approach to increasing access to evidence-based treatments for perinatal mental health and substance use disorders on a population-based level.

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Perinatal mental health and substance use disorders are associated with poor birth,[1] infant,[2] and child outcomes.[3–5] As a result of frequent contact with health care professionals, the perinatal period is an ideal time to screen for, assess, and treat perinatal

mental health and substance use disorders. Despite this, the vast majority go untreated.[6–10]

Between 2015 to 2016, the American College of Obstetricians and Gynecologists,[11] the U.S. Preventive Services Task Force,[12] the Centers for Medicare and Medicaid Services,[13] and the Council on Patient Safety in Women's Health Care[14] recommended depression screening for all perinatal women. In response, obstetric practices are increasingly identifying depression. Although this is a major step forward, it poses new challenges because screening alone does not improve treatment rates or patient outcomes. Screening must be coupled with strategies that build health care provider and practice-level capacity to provide accurate diagnosis and appropriate treatment.[10] In 2014, we developed and implemented the Massachusetts Child Psychiatry Access Program (MCPAP) for Moms.[15] It is a statewide program that supports obstetric, primary care, psychiatric, and pediatric care providers in addressing perinatal mental health and substance use disorders.

The objectives of this quality assessment were to 1) assess utilization outcomes of MCPAP for Moms and 2) elicit patient and obstetric care provider perspectives on barriers and facilitators to addressing perinatal mental health and substance use disorders in the context of MCPAP for Moms and identify areas for improvement.

MATERIALS AND METHODS

As previously reported,[15] MCPAP for Moms was developed and implemented in Massachusetts to respond to the critical public health issue of perinatal depression. It has since broadened its mission beyond perinatal depression to include perinatal substance use disorders and other mental health conditions. MCPAP for Moms provides access to immediate resource provision and referrals and psychiatric telephone consultation with perinatal psychiatrists for obstetric, pediatric, adult psychiatric, adult primary care providers, or any other health care provider serving pregnant or postpartum women. Active outreach, engagement, and enrollment are targeted to obstetric practices and health care providers because they are frontline health care providers for pregnant and postpartum women.

Practices throughout Massachusetts have access to the MCPAP for Moms Provider Toolkit (available at www.mcpapformoms.org) and real-time telephonic consultation with MCPAP for Moms' consulting perinatal psychiatrists. Consultations address and provide support on many topics including diagnoses, treatment planning, advice on psychotherapy and community supports, strategies for medication treatment (when indicated) and adjustments, and review of the evidence regarding medication treatment during preconception, pregnancy, and lactation. MCPAP for Moms perinatal psychiatrists are also available to see patients for one-time face-to-face consultations, after which they send a detailed written assessment that includes treatment recommendations to the referring health care provider. All MCPAP for Moms services are payer-blind and available to all patients regardless of insurance status. MCPAP for Moms resource and referral specialists provide mental health resources and referrals to health care providers and patients by providing information about and referrals to individual and group psychotherapy, psychopharmacologic providers, and family-based treatments such as support groups that are geographically convenient for the patient and compatible with her insurance.

As described elsewhere,[15] data were collected from all health care providers who used MCPAP for Moms from June 30, 2014 (start of program) through December 31, 2017. Each discrete activity (eg, perinatal psychiatric consultation, face-to-face assessment, resource and referral) was considered an encounter. The clinical setting, health care provider type, patient insurance coverage, and the Edinburgh Postnatal Depression Scale or Patient Health Questionnaire scores were collected during encounters.[15]

Obstetric care physicians, advanced practice nurses, and certified nurse–midwives, nurses, patient care assistants, or administrative support staff were recruited from two obstetric practices to participate in focus groups. Recruitment efforts were through direct contact at faculty or staff meetings, informational sessions, and personal email communications. Recruited practices for focus groups included an academic general obstetric practice (approximately 12 health care providers, approximately 1,100 deliveries per year) and a community general obstetric practice (approximately six health care providers, approximately 450 deliveries per year) that are in the same city and perform deliveries at the same hospital. Three 60-minute audiotaped focus groups, guided by a set of open-ended study probes, were conducted by one of the authors (K.B.) with this purposeful sample 16–18 months postimplementation of MCPAP for Moms. This study was approved by the University of Massachusetts Medical School's institutional review board.

Forty-five-minute in-depth semistructured interviews were conducted and audiotaped by two research coordinators with a subsample of patients (n=10) from a larger study.[16] Patients were invited to participate if they met the following inclusion criteria:

1) female; 2) age 18–55 years, 3) English-speaking; 4) greater than 4 weeks of gestation until 4 months postpartum; 5) receiving care from a practice enrolled in MCPAP for Moms; 6) Edinburgh Postnatal Depression Scale score 10 or greater; and 7) did not meet criteria for an active substance use disorder(s), bipolar disorder, or psychotic illness as determined by the Mini-International Neuropsychiatric Interview.[17] Demographic information, including age, gestational age or weeks postpartum, race–ethnicity, and health insurance, was obtained.

Recordings of the focus groups and in-depth interviews were cleaned of any identifying data, transcribed, and checked for accuracy. Transcripts were uploaded into Dedoose, a web-based software program that facilitates mixed-methods data management for further coding, elaboration, and specification of concepts and relationships. Qualitative analysis was conducted in the context of a larger study.[16] Interview content was organized theoretically using a modified grounded theory approach with a phenomenologic emphasis.[18] Dedoose allows for the assembling of coded segments into selected configurations that facilitate identification of recurring patterns and clusters. Using methods described by Miles and Huberman,[19] categorizing began with an initial set of preliminary codes for themes suggested from the literature, research aims, and previous work. Codes were added as they emerged from the data until saturation was achieved, and initial transcript sections were recategorized using the reformulated codes. Each transcript was coded by two researchers. Calculated using pooled Cohen's κ coefficient, the interrater reliability was 0.97.

RESULTS

Massachusetts has approximately 72,000 births per year[20]; thus, during the first 3.5 years of program implementation, approximately 248,500 women were pregnant or postpartum. Assuming a 15% rate of depression,[21] approximately 37,275 women would have experienced depression during this time period.

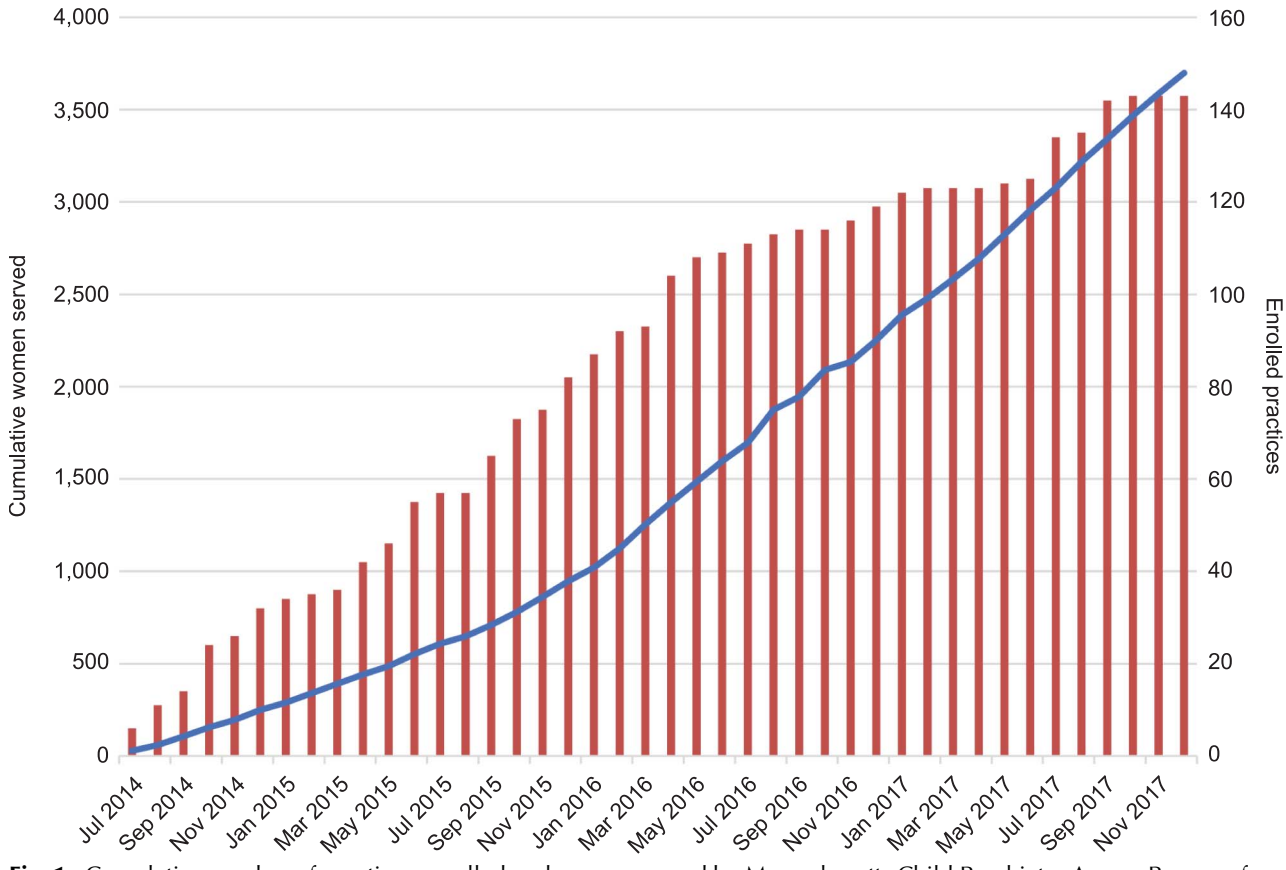

Fig. 1. Cumulative number of practices enrolled and women served by Massachusetts Child Psychiatry Access Program for Moms since inception. *Blue line* indicates cumulative women served. *Red bars* indicate enrolled practices. No additional practices were enrolled between September and December of 2017.

Byatt. MCPAP for Moms. Obstet Gynecol 2018.

Since inception, MCPAP for Moms has served 3,699 women, which is 9.9% out of 37,275 presumed women with depression. MCPAP for Moms has trained and enrolled 70% (145) of the obstetric practices in the state, which includes 1,174 obstetric care providers, covering approximately 80% of the deliveries in the state (Fig. 1).

The characteristics of patients served are summarized in Table 1. Encounters according to services provided and health care provider type are listed in Table 2. There was a wide range of consultations reasons (Table 3), diagnoses and medications discussed during telephone encounters (Table 4), and encounter outcomes (Table 5). Of the total number of patients who had phone consultations (2,234), 51% (1,134) had one diagnosis, 31% (688) had two diagnoses, and 18% (412) had more than two diagnoses.

Table 1. Characteristics of Patients Served and Depression Screening Results of Women Served Between June 30, 2014, and December 31, 2017*

	n (%)
Time period among 2,457 phone consultations*	
Preconception	69 (3)
Trimester 1	536 (22)
Trimester 2	435 (18)
Trimester 3	335 (14)
Perinatal loss	62 (3)
Postpartum lactating	597 (24)
Postpartum not lactating	422 (17)
Perinatal loss	62 (3)
Screening scores among 949 women whose health care provider reported an EPDS or PHQ-9 score†	
EPDS or PHQ-9 score 10 or greater	790 (83)
PHQ-9 score	
9 or less	53 (5)
10–14	18 (2)
15–19	18 (2)
20 or greater	9 (1)
EPDS score	
Less than 8	106 (13)
9–12	160 (19)
13–18	329 (39)
19 or greater	250 (30)
Thoughts of self-harm‡	
Never	586 (62)
Hardly ever	104 (11)
Sometimes	58 (6)
Yes, quite often	17 (2)

EPDS, Edinburgh Postnatal Depression Scale; PHQ-9, Patient Health Questionnaire.
* Percentages based on 2,457 phone consultations; women served can have multiple telephone consultations.
† Percentages based on 949 women with EPDS or PHQ-9 scores.
‡ Based on answer to EPDS question 10.

Health care provider participants in focus groups included obstetric attending physicians (n=11); advance practice nurses (n=2); and nursing staff (n=3), support staff (n=19), and a licensed clinical social worker (n=1). At the time of recruitment, patient participant ages ranged from 22 to 35 years and they were between 12 and 8 weeks postpartum. Patient participants were 50% Hispanic, 2% native Hawaiian or Pacific Islander, 1% each of white, African American, and more than one race–ethnicity; 70% had private health insurance, 2% Mass Health and 1% Medicaid. Although health care providers and patients both reported that MCPAP for Moms was critical to their ability to provide or participate in mental health treatment, respectively, both also reported challenges remained. Health care providers reported that this was especially true in the beginning when they initially changed their practice to screen, assess, and treat perinatal mental health and substance use disorders.

There was a lack of training and self-efficacy with depression assessment and utilization of MCPAP for Moms among health care providers. Health care providers and staff reported that they did not fully understand all the resources of MCPAP for Moms at first, how to best use the program in an efficient manner, or both. Several health care providers reported that at first, they felt undertrained and ill-prepared to assess patients' mental health and provide treatment. As such, a subset of the health care providers expressed reluctance to provide depression care.

"The Edinburgh Postnatal Depression Scale (EPDS) is just a screening test…I'd never treat someone based on the EPDS without talking to them…finding a way to sort of get them the definitive diagnosis is a challenge."

Having access to MCPAP for Moms helped practices implement depression screening, which facilitated depression detection and assessment. Health care providers noted that screening patients for depression improved rates of detection and created an opportunity to have a conversation about depression and decrease stigma.

"I feel like screening for depression is so automatic now in our clinic before we would sort of ask some vague questions, but we wouldn't necessarily hand the patients the EPDS and then see what it was and then address it. It [screening] just has become a part of what we do, which I think is fantastic because we really pick up a lot that we may not have otherwise if we didn't particularly put it on our radar to ask about depression…"

Increased psychoeducation by perinatal health care professionals helped patients feel more comfortable

Table 2. Encounters According to Services Provided and Health Care Provider Types From June 30, 2014, to December 31, 2017, for 3,699 Women Served

Health Care Provider Type	Total No. of Encounters*	Consult Encounters†	Face-to-Face Encounters	Resource and Referral Encounters With Health Care Providers
Obstetrician	3,804 (51)	1,108 (43)	101 (44)	2,520 (56)
Midwife	1,534 (21)	523 (20)	56 (24)	952 (21)
Psychiatrist	468 (6)	368 (14)	24 (10)	51 (1)
Family practitioner	396 (5)	186 (7)	24 (10)	175 (4)
Physician assistants or nurse practitioner	738 (10)	187 (7)	8 (4)	543 (12)
Pediatricians	261 (4)	107 (4)	3 (1)	144 (3)
Internal medicine physician	149 (2)	64 (3)	12 (5)	69 (2)
Other	94 (1)	45 (2)	3 (1)	46 (1)
Total	7,444	2,588	231	4,500

Data are n (%) unless otherwise specified.
* Each health care provider and women served can have multiple encounter types.
† Includes encounters with nonproviders and hallway, email, and follow-up consultations.

discussing depression. Health care providers noted that training nurses and nursing assistants to screen for and discuss depression with patients was critical. They noted that having the conversation about depression destigmatized depression; thus, patients were more open to discussing it.

The educational materials, training, and consultation provided by MCPAP for Moms improved health care providers' knowledge, understanding, and self-efficacy for how to deliver perinatal and postpartum depression care. Health care providers noted that the training combined with knowing they could access MCPAP for Moms allowed them to integrate depression care into their practice.

"[MCPAP for Moms] has created such a great avenue. One to allow people to, who want to say how they feel but maybe they're afraid to so they can say it on this piece of paper and it's a simple thing to screen positive and then we can call you and it's worked ideally for me…patients in the past have not had anywhere to go and we had nowhere to send them…everyone I screened positive, almost all of them have really wanted help and some I kind of knew [they] had a problem but they didn't vocalize it and this allowed me an avenue to identify them and to get them help so I want to thank you for that."

Patients' perceptions about mental health care initially hindered their ability to ask for or to participate in treatment. Several reported that at first, they were fearful of being judged as an unfit mother and were ashamed to discuss depression, which made it difficult to reach out to their health care provider for help. Several patient participants expressed a belief that mental health care was outside of the realm of care provided by an obstetrician.

Some obstetric providers still lack training, confidence, interest in, or all of these, discussing depression and treatment options with patients. Several

Table 3. Reason for Telephone Encounter From June 30, 2014, to December 31, 2017, for All of the 2,547 Telephone Consult Encounters With Health Care Providers*

Contact Reason	Reason for Telephone Consult Encounters	% of Total Telephone Encounters
Resources—community access	1,545	61
Medication question(s)	1,332	52
Risk–benefits of medication use in pregnancy	631	25
Positive screen	371	15
Diagnostic question(s)	287	11
Lactation question(s)	216	9
Safety concerns	142	6
Preconception question(s)	36	1
Screening tool question	27	1
Other	21	1
Nonmember-specific	8	<1

* There may be more than one reason for each telephone encounter.

Table 4. Diagnoses, Medications, and Medication Changes Discussed During Telephone Encounters From June 30, 2014, to December 31, 2017, for All 2,547 Telephone Consult Encounters With Health Care Providers

	n (%)
Diagnoses discussed	
Unspecified depressive disorder	1,301 (51)
Unspecified anxiety disorder	985 (39)
Major depressive disorder	233 (9)
PTSD	142 (6)
Opioid use disorder	140 (6)
Unspecified trauma or stress-related disorder	98 (4)
ADHD	78 (3)
Panic disorder	59 (2)
Adjustment disorder	50 (2)
Cannabis use disorder	49 (2)
Bipolar I	41 (2)
Obsessive-compulsive disorder	39 (2)
Schizophrenia	20 (1)
Alcohol use disorder	27 (1)
Cocaine use disorder	23 (1)
Complicated grief disorder	6 (<1)
Substance or medicated-induced depressive disorder	5 (<1)
Persistent depression (dysthymia)	1 (<1)
Medications discussed	
SSRI	1,260 (50)
Other antidepressants	419 (17)
Benzodiazepines	377 (15)
Atypical antipsychotics	251 (10)
Other sleep or anxiety agents	191 (8)
Lamotrigine	139 (5)
SNRI	90 (4)
Mood stabilizers	78 (3)
Lithium	52 (2)
Buprenorphine	34 (1)
Typical antipsychotics	34 (1)
Haloperidol	30 (1)
Methadone	25 (1)
Tricyclic antidepressant	21 (1)
Perphenazine	17 (1)
Medications discussed	
Initiation	229 (9)
Change	143 (6)
Dose increase	218 (9)
Dose decrease	54 (2)
Taper	52 (2)
Additional medication started	210 (8)
Referral for medication treatment	160 (6)

PTSD, posttraumatic stress disorder; ADHD, attention deficit hyperactivity disorder; SSRI, selective serotonin reuptake inhibitor; SNRI, serotonin–norepinephrine reuptake inhibitors.

patient participants reported that although their obstetric care provider gave them a list of mental health care providers and ways to contact them, they did not directly connect the patient nor follow-up with them to ensure they started treatment. One patient participant noted that the conversation about treatment ended when she expressed hesitation. Several patients wished health care providers had been more proactive in helping them seek mental health treatment. Patients also wanted nurses and nursing assistants to receive even more training in how to discuss depression with patients.

"If my doctor [had been]…more adamant that I should see somebody or…the ease of finding somebody had been greater, then maybe I would have followed up, but it just seemed at the time like it wasn't worth it."

Although mental health was addressed, physical health was sometimes prioritized over mental health. Patient participants reported feeling forced to prioritize their physical health concerns as a result of time constraints and a perception that their health care providers thought physical health was more important than mental health. Several patient participants recommended that obstetric care providers probe even more about their emotions and be more proactive in facilitating conversations around mental health care.

"They don't seem comfortable addressing depression. They do talk about it a little bit, but I could sense that…my OB-…didn't have enough…practice with her skills…I don't think [obstetricians] are used to…dealing with or talking about depression…It was very superficial and [obvious that she wanted] to get this over with and get on to the actual physical."

Screening with the Edinburgh Postnatal Depression Scale facilitated depression detection, discussion, and treatment. Patient participants noted that the Edinburgh Postnatal Depression Scale provided a way to inquire about their mental health more consistently and frequently, normalize the perinatal depression conversation, and make depression care feel as if it is a routine part of obstetric care.

"At first, I wasn't as comfortable talking about [depression] because it is something that I have dealt with for years and nobody ever really cared to ask…But, eventually with them being consistent [with asking about my emotional wellness], I was able to get comfortable with them talking about it."

Normalization of depression, a trusting relationship with their obstetric care provider, and obstetric care provider persistence in discussing and treating depression helped patients feel comfortable. Patients reported that health care provider persistence in discussing the importance of their mental health and treatment options created a sense of normalcy around the topic of mental health care. They also reported that they more likely to engage in medication

Table 5. Outcomes of Initial Telephone Encounter From June 30, 2014, to December 31, 2017, for 2,541 Telephone Consult Encounters With Health Care Providers*

Outcome	n (%)
Back to health care provider	2,082 (82)
Resource and referral: contact patient	1,604 (36)
Refer to outpatient therapist	1,166 (46)
Refer to a new psychiatrist	461 (18)
Face-to-face visit	312 (12)
None	125 (5)
Refer to support group	112 (4)
Resource and referral: resources to health care provider	1,578 (35)
Refer to psychotherapy group	62 (2)
Bridge treatment with PCP	47 (2)
Refer to an existing psychiatrist	39 (2)
Refer to psychiatric emergency services	16 (1)
Refer to partial hospital	10 (<1)
Refer to parent–infant therapy	6 (<1)
Refer to mobile crisis services	3 (<1)

PCP, primary care physician.
* There may be more than one outcome for each telephone encounter.

treatment when it was provided by the obstetric care provider.

"When I was pregnant, the OB…they [took] over all of…[my] medications…I found [it] very helpful that I didn't have to go through different people…I really liked that…-when you're there, it's like [the obstetrician does] it all, which is good. And I feel like that's a good thing to just can monitor…the whole patient and…you're not being shipped off to different places…It was comforting somehow that…this is all I have to do…and they're managing everything…that was nice."

Patients lauded the continuous, well-coordinated care provided by the obstetrician and the therapist. Patient participants described how MCPAP for Moms' resource and referral specialists regularly checked in on patients connected to mental health care. They noted that the resource and referral specialist called patients to follow-up after they have been referred, ensured patients are linked with a therapist who is a good fit, and coordinated booking of appointments when needed.

"…The [MCPAP for Moms care] coordinator…she actually called to check in on me…and that's actually how I ended up switching therapists…she would call me…and ask me how was it, if I liked that person and how is it working for me…[the] [MCPAP for Moms care resource and referral specialist] kept calling every week to see how it was going…"

DISCUSSION

The volume of encounters and number of women served and perceptions of obstetric practices and patients suggest MCPAP for Moms builds the capacity of frontline providers to detect, assess, and treat psychiatric illness among pregnant and postpartum women. After 3.5 years of operation, a high percentage of obstetric practices in Massachusetts have enrolled in MCPAP for Moms. Themes identified in qualitative data suggest that MCPAP for Moms providers needed resources that facilitate health care providers detecting and addressing depression and women disclosing symptoms, seeking help, and initiating treatment. Themes also suggest that although MCPAP for Moms is helpful, it could be improved by providing 1) more training for obstetric care providers and nursing support staff to increased knowledge, skills, and comfort in addressing mental health concerns; and 2) proactive outreach to help individual practices initiate depression treatment and follow-up with patients regarding engagement with treatment recommendations and referrals.

As previously noted,[15] there are several limitations to descriptions of our utilization and program outcomes including selection and reporting bias and lack of data on treatment participation or depression symptom improvement. Our analysis of phone encounters is also limited to utilization data. Although telephone encounters frequently involved questions about resources, result in referrals, or both, we are not able to link these data directly to the experiences of women who participated in the in-depth interviews.

Although MCPAP for Moms increases access to care by being available for frontline providers, it does not proactively work at the practice level. The need for obstetric practices to more proactively address depression and follow-up on treatment and referrals was noted by patient participants. Thus, additional intervention components are needed to help obstetric practices integrate more proactive mental health care and follow-up into in their workflow. Collaborative care models, step-by-step implementation assistance, training, and change management support may be able to help individual obstetric practices implement and integrate comprehensive depression care.[16,22,23] Understanding the cost-effectiveness, value and effect of MCPAP for Moms on mental health clinical outcomes is also essential and requires further study.

MCPAP for Moms provides a model for improving access to treatments for which the evidence-based is already established.[24–26] All 72,000 women who give birth each year in Massachusetts have access to

psychiatric care because their medical providers can call MCPAP for Moms for consultation and resources and referrals. Our qualitative data suggest that presence of MCPAP for Moms and the ongoing health care provider education provided during consultations increase health care providers' willingness and self-efficacy to screen for and manage perinatal mental health substance use disorders. Thus, the reach of MCPAP for Moms may extend beyond the patients served directly. The high volume of encounters, sustained utilization over 3.5 years, and qualitative themes identified from health care providers and patients suggest that MCPAP for Moms is an acceptable approach to increasing access to evidence-based treatments on a population-based level for those who enroll and use it. MCPAP for Moms is also viewed as a model for other states[27,28] and is the basis for the recently passed federal HR 3235 Section 10,005 (consolidated in the 21st Century Cures Act). Funding for the first year for other states to establish MCPAP for Moms-style programs has been appropriated in the recently passed federal budget. Thus, MCPAP for Moms-type programs show promise as a sustainable approach for increasing access to mental health care for pregnant and postpartum women across the United States.

REFERENCES

1. Grote NK, Bridge JA, Gavin AR, Melville JL, Iyengar S, Katon WJ. A meta-analysis of depression during pregnancy and the risk of preterm birth, low birth weight, and intrauterine growth restriction. Arch Gen Psychiatry 2010;67:1012–24.
2. Britton HL, Gronwaldt V, Britton JR. Maternal postpartum behaviors and mother-infant relationship during the first year of life. J Pediatr 2001;138:905–9.
3. Forman DR, O'Hara MW, Stuart S, Gorman LL, Larsen KE, Coy KC. Effective treatment for postpartum depression is not sufficient to improve the developing mother-child relationship. Dev Psychopathol 2007;19:585–602.
4. Deave T, Heron J, Evans J, Emond A. The impact of maternal depression in pregnancy on early child development. BJOG 2008;115:1043–51.
5. Paulson JF, Keefe HA, Leiferman JA. Early parental depression and child language development. J Child Psychol Psychiatry 2009;50:254–62.
6. Smith MV, Shao L, Howell H, Wang H, Poschman K, Yonkers KA. Success of mental health referral among pregnant and postpartum women with psychiatric distress. Gen Hosp Psychiatry 2009;31:155–62.
7. Carter FA, Carter JD, Luty SE, Wilson DA, Frampton CM, Joyce PR. Screening and treatment for depression during pregnancy: a cautionary note. Aust N Z J Psychiatry 2005;39:255–61.
8. Marcus SM, Flynn HA, Blow FC, Barry KL. Depressive symptoms among pregnant women screened in obstetrics settings. J Womens Health (Larchmt) 2003;12:373–80.
9. Rowan P, Greisinger A, Brehm B, Smith F, McReynolds E. Outcomes from implementing systematic antepartum depression screening in obstetrics. Arch Womens Ment Health 2012;15:115–20.
10. Byatt N, Levin LL, Ziedonis D. Moore Simas TA, Allison J. Enhancing participation in depression care in outpatient perinatal care settings: a systematic review. Obstet Gynecol 2015; 126:1048–58.
11. Screening for perinatal depression. Committee Opinion No. 630. American College of Obstetricians and Gynecologists. Obstet Gynecol 2015;125:1268–71.
12. Siu AL, Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, Ebell M, et al; US Preventive Services Task Force (USPSTF). Screening for depression in adults: US Preventive Services Task Force recommendation statement. JAMA 2016;315:380–7.
13. Wachino V; Center for Medicaid and CHIP Services. Maternal depression screening and treatment: a critical role for Medicaid in the care of mothers and families in: Department of Health and Human Services. Baltimore (MD): Centers for Medicare and Medicaid Services; 2016.
14. Kendig S, Keats JP, Hoffman MC, Kay LB, Miller ES, Moore Simas TA, et al. Consensus bundle on maternal mental health: perinatal depression and anxiety. J Obstet Gynecol Neonatal Nurs 2017;46:272–81.
15. Byatt N, Biebel K, Moore Simas TA, Sarvet B, Ravech M, Allison J, et al. Improving perinatal depression care: the Massachusetts Child Psychiatry Access Project for Moms. Gen Hosp Psychiatry 2016;40:12–7.
16. Byatt N, Moore Simas TA, Biebel K, Sankaran P, Pbert L, Weinreb L, et al. PRogram in Support of Moms (PRISM): a pilot group randomized controlled trial of two approaches to improving depression among perinatal women. J Psychosom Obstet Gynaecol 2017:1–10.
17. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. J Clin Psychiatry 1998;59(suppl 20):22–33.
18. Morgan D. Focus groups as qualitative research. Thousand Oaks (CA): Sage Publications; 1988.
19. Miles MH, Huberman AM. Qualitative data analysis.2nd ed. Thousand Oaks (CA): Sage Publications; 1994.
20. Massachusetts Department of Public Health. Massachusetts births 2015. Boston (MA): Massachusetts Department of Public Health; 2017.
21. Gavin NI, Gaynes BN, Lohr KN, Meltzer-Brody S, Gartlehner G, Swinson T. Perinatal depression: a systematic review of prevalence and incidence. Obstet Gynecol 2005;106:1071–83.
22. Grote NK, Katon WJ, Russo JE, Lohr MJ, Curran M, Galvin E, et al. Collaborative care for perinatal depression in socioeconomically disadvantaged women: a randomized trial. Depress Anxiety 2015;32:821–34.
23. Moore Simas TA, Flynn MP, Kroll-Desrosiers A, Carvalho S, Biebel K, Levin L, et al. A systematic review of integrated care interventions addressing perinatal depression care in ambulatory obstetric care settings. Clin Obstet Gynecol 2018 Mar 16 [Epub ahead of print].
24. Yonkers KA, Wisner KL, Stewart DE, Oberlander TF, Dell DL, Stotland N, et al. The management of depression during pregnancy: a report from the American Psychiatric Association and the American College of Obstetricians and Gynecologists. Obstet Gynecol 2009;114:703–13.

25. Weissman MM, Pilowsky DJ, Wickramaratne PJ, Talati A, Wisniewski SR, Fava M, et al. Remissions in maternal depression and child psychopathology: a STAR*D-child report. JAMA 2006;295:1389–98.

26. Beeber LS, Holditch-Davis D, Perreira K, Schwartz TA, Lewis V, Blanchard H, et al. Short-term in-home intervention reduces depressive symptoms in Early Head Start Latina mothers of infants and toddlers. Res Nurs Health 2010;33:60–76.

27. Daley J. 21st Century Cures Act tackles postpartum depression. Available at: https://www.smithsonianmag.com/smart-news/obama-signs-new-legislation-tackles-postpartum-depression-180961359/. Retrieved January 15, 2018.

28. Clark K, Gessner J, Bombaugh M. Massachusetts postpartum depression program a model for a national plan. Available at: https://www.statnews.com/2017/01/09/postpartum-depression-massachusetts/. Retrieved January 15, 2018.