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Massachusetts Child Psychiatry Access Program for Moms: Utilization and Quality Assessment

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Abstract

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).

Method—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 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.

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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.

INTRODUCTION

Perinatal mental health and substance use disorders are associated with poor birth,¹ infant², and child outcomes.^{3–5} Due to 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.⁶ Despite this, the vast majority go untreated.^{6–9}

Between 2015 to 2016, the American College of Obstetricians and Gynecologists,¹⁰ the US Preventive Services Task Force,¹¹ the Center for Medicaid Services¹² and the Council on Patient Safety in Women's Health Care¹³ recommended depression screening for all perinatal women. In response, obstetric practices are increasingly identifying depression. While 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 provider and practice-level capacity to provide accurate diagnosis and appropriate treatment.¹⁴ In 2014, we developed and implemented the Massachusetts Child Psychiatry Access Program (MCPAP) for Moms.¹⁵ MCPAP for Moms 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 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. MCPAP for Moms 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/referrals and psychiatric telephone consultation with perinatal psychiatrists for obstetric, pediatric, adult psychiatric, adult primary care providers, or any other provider serving pregnant or postpartum women. Active outreach, engagement, and enrollment are targeted to obstetric practices and health care providers because they are front-line health care providers for pregnant and postpartum women.

Practices throughout Massachusetts have access to 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 provider. All MCPAP for Moms services are payor-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 (e.g., perinatal psychiatric consultation, face to face assessment, resource and referral) was considered an encounter. The clinical setting, provider type, patient insurance coverage, and the Edinburgh Postnatal Depression Scale (EPDS) or Patient Health Questionnaire (PHQ-9) scores were collected during encounters.¹⁵

Obstetric 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/staff meetings, informational sessions, and personal email communications. Recruited practices for focus groups included an academic general obstetric practice (~12 providers, ~1,100 deliveries/year) and a community general obstetric practice (~6 providers, ~450 deliveries/year) that are in the same city and perform deliveries at the same hospital. Three 60-minute audio-taped 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 months to 18 months post-implementation of MCPAP for Moms. This study was approved by the University of Massachusetts Medical School's Institutional Review Board.

Forty-five minute in-depth semi-structured interviews were conducted and audio-taped 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) >4 weeks gestational age (GA) until 4 months postpartum; (5) receiving care from a practice enrolled in MCPAP for Moms; (6) EPDS 10; 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 (M.I.N.I.).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,¹⁸ 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 phenomenological emphasis.¹⁹ Dedoose allows for the assembling of coded segments into selected configurations that facilitates identification of recurring patterns/clusters. Using methods described by Miles & Huberman,²⁰ 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 re-categorized using the reformulated codes. Each transcript was coded by two researchers. Calculated using Pooled Cohen's Kappa coefficient, the inter-rater reliability was 0.97.

RESULTS

Massachusetts has approximately 72,000 births per year,²¹ thus during the first 3.5 years of program implementation approximately 248,500 women were pregnant or postpartum. Assuming a 15% rate of depression,²² approximately 37,275 women would have experienced depression during this time period. 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 providers, covering approximately 80% of the deliveries in the state (Figure 1).

The characteristics of patients served is 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 2 diagnoses, and 18% (412) had more than 2 diagnoses.

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 participants ages ranged from 22–35 years and they were between 12 weeks gestation and 8 weeks postpartum. Patient participants were 50% Hispanic, 2% Native Hawaiian/Pacific Islander, 1% each of white, African American and more than one race/ethnicity, and 70% had private health insurance, 2% Mass Health and 1% Medicaid. While 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.

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 and/or how to best use the program in an efficient manner. 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 providers expressed reluctance to provide depression care.

“The 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 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 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, and/or interest in discussing depression and treatment options with patients. Several patient participants reported that while their obstetric 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 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.”

While mental health was addressed, physical health was sometimes prioritized over mental health. Patient participants reported feeling forced to prioritize their physical health concerns due to time constraints and a perception that their providers thought physical health was more important than mental health. Several patient participants recommended that obstetric 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 EPDS facilitated depression detection, discussion, and treatment. Patient participants noted that the EPDS 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 provider, and obstetric provider persistence in discussing and treating depression helped patients feel comfortable. Patients reported that 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 treatment when it was provided by the obstetric 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 therapist that 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 suggests MCPAP for Moms builds the capacity of front-line 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 providers detecting and addressing depression and women disclosing symptoms, seeking help, and initiating treatment. Themes also suggest that while MCPAP for Moms is helpful, it could be improved by providing: (1) more training for obstetric 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. While telephone encounters frequently involved questions about resources and/or result in referrals, we are not able to link these data directly to the experiences of women who participated in the in-depth interviews.

While MCPAP for Moms increases access to care by being available for front line 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 work flow. 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.^{16,23,24} Understanding the cost-effectiveness, value and impact 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.^{25–27} 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/referrals. Our qualitative data suggests that presence of MCPAP for Moms and the ongoing provider education provided during

consultations increases 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 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^{28,29} and is the basis for the recently passed federal HR. 3235 Section 10005 (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 shows promise as a sustainable approach for increasing access to mental health care for pregnant and postpartum women across the US.

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Figure 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 in the last four months.

Table 1

Characteristics of Patients Served and Depression Screening Results of Women Served between June 30, 2014 – December 31, 2017[†]

	n	%
Time-Period Among 3,699 Women Served		
Preconception	69	3
Trimester 1	536	21
Trimester 2	435	17
Trimester 3	335	13
Perinatal Loss	62	2
Postpartum Lactating	597	23
Postpartum Not Lactating	422	17
Perinatal Loss	62	2
Screening Scores Among 845 Women Whose Provider Reported an EPDS or PHQ-9 Score		
EPDS 10 or PHQ-9 10	790	83
PHQ-9 9	53	51
PHQ-9 10–14	18	17
PHQ-9 15–19	18	17
PHQ-9 20	9	9
EPDS <8	106	13
EPDS 9–12	160	19
EPDS 13–18	329	39
EPDS 19	250	30
Thoughts of self-harm[†]		
Never	586	77
Hardly Ever	104	14
Sometimes	58	8
Yes, quite often	179	2

[†]Based on answer to EPDS question 10

Table 2

Encounters According to Services Provided and Provider Types from June 30, 2014 – December 31, 2017 for 3,699 Women Served

Provider Type	Total number of Encounters [†]	Consult Encounters [‡]	Face to Face Encounters	Resource and Referral Encounters with Health Care Providers
Obstetrician	3,804 (50%)	1,108 (42%)	101 (41%)	2,520 (57%)
Midwife	1,534 (20%)	523 (19%)	56 (24%)	952 (21%)
Psychiatrist	468 (8%)	368 (16%)	24 (13%)	51 (1%)
Family Practitioner	396 (6%)	186 (8%)	24 (11%)	175 (4%)
Physician Assistants/Nurse Practitioner	738 (9%)	187 (7%)	8 (3%)	543 (11%)
Pediatricians	261 (3%)	107 (4%)	3 (2%)	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

[†]Each provider and women served can have multiple encounter types

[‡]Includes encounters with non-providers and hallway, email and follow-up consultations

Table 3

Reason for Telephone Encounter from June 30, 2014 – December 31, 2017 for all for the 2,541 Telephone Consult Encounters with Health Care Providers[†]

Contact Reason	Reason for Telephone Consult Encounters	% of Total Initial Encounters
Resources-Community Access	1545	61%
Medication question(s)	1332	52%
Risk/benefits of med 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%
Non-Member Specific	8	<1%

[†]There may be more than one reason for each telephone encounter

Table 4

Diagnoses, Medications, and Medications Changes Discussed During Telephone Encounter from June 30, 2014 – December 31, 2017 for all 2,541 Telephone Consult Encounters with Health Care Providers[†]

	n	%
Diagnoses Discussed		
Unspecified depressive disorder	1301	51
Unspecified anxiety disorder	985	39
Major depressive disorder	233	9
PTSD	142	6
Opioid use disorder	140	6
Unspecified trauma/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/medicated induced depressive disorder	5	<1
Persistent depression (dysthymia)	1	<1
Medications Discussed		
SSRI	1260	50
Other antidepressants	419	17
Benzodiazepines	377	15
Atypical antipsychotics	251	10
Other sleep/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
Medication Changes Discussed		
Initiation	229	9
Change	143	6

	n	%
Dose increase	218	9
Dose decrease	54	2
Taper	52	2
Additional medication started	210	8
Referral for medication treatment	160	6

PTSD=post-traumatic stress disorder; ADHD=attention deficit hyperactivity disorder;

SSRI=selective serotonin reuptake inhibitor; SNRI= Serotonin–norepinephrine reuptake inhibitors

Table 5

Outcomes of Initial Telephone Encounter from June 30, 2014 – December 31, 2017 for 2,541 Telephone Consult Encounters with Health Care Providers [†]

Outcome	n	%
Back to Provider	2082	82
Resource and Referral: Contact Patient	1604	36
Refer to Outpatient Therapist	1166	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 Provider	1578	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

[†]There may be more than one outcome for each telephone encounter