Beyond Screening: A Stepped Care Pathway for Managing Postpartum Depression in Pediatric Settings

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Abstract

The negative consequences of untreated postpartum depression (PD) for both the woman and her infant are well established. The impact of maternal depression has led to recommendations on systematic perinatal depression screening. Unfortunately, large-scale initiatives on PD screening have found no benefit unless systems are in place to facilitate appropriate interventions for women who screen positive. Pediatric primary care has been a focus of efforts to support screening and management of PD because pediatric providers, unlike adult healthcare providers, have the most frequent contact with postpartum women through well-child visits. Well-child visits thus present an unparalleled opportunity to detect and intervene with PD. Literature reviews suggest that specific strategies are feasible within pediatric settings and could benefit both the woman and her child. In this article, we present a stepped care approach for screening and managing PD, integrating common elements found in existing pediatric-based models. A stepped care approach is ideal because PD is a heterogeneous condition, with a range of presentations and hence responsiveness to various interventions. This care pathway begins with systematic screening for depression symptoms, followed by a systematic risk assessment for women who screen positive and care management based on risk profiles and responsiveness. This approach allows pediatric providers to be optimally flexible and responsive in addressing the majority of women with PD within the context of the family-centered medical home to improve child well-being. Challenges to managing PD within pediatrics are discussed, including strategies for addressing them. Implications for research, policy, and practice are discussed.

Keywords: postpartum depression, well-baby care, care pathway, maternal and child health

Introduction

POSTPARTUM DEPRESSION (PD) is prevalent and associated with significant negative consequences for the woman, her infant, and her family.^{1–4} Yet, a majority of women fail to recognize or seek help for PD.⁵ The public health significance of PD has resulted in various practice guidelines and large-scale screening efforts.^{6–8} The estimated prevalence of PD in the general population in Western countries is between 12.9%–21.9% during the first year postpartum;^{9–11} these rates vary widely internationally (ranging from 0% to 60%) with higher rates in developing than developed countries and among certain cultural groups.^{12–14} Despite such variations in

PD prevalence, there are common risk factors, with the strongest predictors, including a personal or family history of mood or anxiety disorders, stressful life events, poor social supports, and prior miscarriages or stillbirths.^{15,16}

Currently, systematic screening for depression in the perinatal period is controversial because methodological differences in trials have resulted in discrepant conclusions about the benefits of screening. There is currently no well-designed clinical trial that shows a benefit of depression *screening alone*¹⁷; positive outcomes, however, were found to be associated with screening when enhanced depression care was available for postpartum women who screen positive.^{18–20} Existing international guidelines thus differ in their recommendations. Both the

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U.K. National Institute for Health and Care Excellence and the Canadian Task Force on Preventive Healthcare's guidelines recommend against formal screening for depression during the perinatal period.^{21,22} In the United States, professional organizations, including the American Academy of Pediatrics,²³ and the U.S. Preventive Services Task Force²⁴ recommend screening for depression among pregnant and postpartum women, with the caveat that such screening efforts "be implemented with adequate systems in place to ensure accurate diagnosis, effective treatment, and appropriate follow-up." Given the variations in PD prevalence, screening decisions might take into consideration both the practice population characteristics and available supports for follow-up.

Integrating screening for PD as part of well-baby care

Despite the controversy around screening for PD, the recent guidance from the U.S. Preventive Services Task Force²⁴ was followed by a CMS (Centers for Medicare & Medicaid Services) Informational Bulletin, highlighting the critical role of Medicaid reimbursement for screening and treatment of mothers, clarifying that "maternal depression screening is for the direct benefit of the child."²⁵ Endorsed as a best practice for pediatric providers by the American Academy of Pediatrics²³ and now backed by policy action to support reimbursement for related services as part of well-child visits, developing and testing effective models of managing maternal depression for the direct benefit of the child is much needed.

Because of the frequency of well-child visits during the first year of an infant's life, pediatric primary care is considered an ideal venue for screening and, potentially, managing PD (typically defined as depression onset within 12 months of child-birth).^{18,26-28} For many women, the relationship they establish with their pediatric providers creates a trusting foundation on which to build important discussions about their own health-care needs that directly affect their infants.

Numerous calls have been made for pediatricians to include screening and management of PD as part of infant well-care;^{23,25-27,29} however managing PD within pediatrics is complicated because PD is a maternal condition. The challenges of implementing protocols related to maternal mental health have been well-described.^{19,30,31} Pediatric providers wrestle with issues around scope of their responsibilities, challenges with reimbursement, and care documentation for the mother. Many pediatricians report a lack of confidence and skill in effectively managing PD and do not feel that there are adequate supports in place to feel comfortable screening for maternal depression.^{32,33} While these practice challenges are real, the potential for harm of untreated PD to the infant makes it irresponsible to do nothing, leaving pediatric providers in an ethical quandary.

Recent reviews have identified several models for managing PD in pediatric settings.^{18,19} Care strategies were highly similar across both pediatric and adult primary care settings. A "screen and manage" approach was common within pediatric models, with varying degrees of maternal depression management within the practice where screening occurred. To date, the evidence supports the feasibility of managing PD as part of pediatric primary care; however maternal and child outcome data for US-based pediatric practices are still unavailable. Despite evidence for the feasibility and potential

benefits of addressing maternal depression, only a quarter of pediatricians report screening mothers for depression and less than half report asking about maternal depression.³²

Models for managing depression within primary care: why stepped care?

In the United States, collaborative care models (typically involving the provision of behavioral healthcare as part of adult primary care) for systematically addressing depression according to evidence-based guidelines within primary care have demonstrated efficacy in improving depression outcomes.³⁴⁻³⁶ To date, very few of these models have targeted depression among women, and a focus on PD is rare.^{20,36,37} Only one large U.S. based primary care study in family medicine systematically examined PD screening with modest clinical supports involving telephone-based support- and follow-up visits by nursing staff within the practice; women with elevated depression screen scores were more likely to receive a diagnosis, treatment, and show improvement in depression scores at intervention practices than in control groups.³⁸ Tested models for effectively managing PD as part of pediatric well-child care in the United States are lacking.

Effective follow-up for women who screen positive is critical to changing outcomes. PD screening efforts in pediatric primary care have highlighted the importance of specific follow-up procedures with mothers who screen positive.¹⁸⁻²⁰ Common strategies reported in the literature for managing PD within pediatric settings include routine screening using validated tools, psychosocial risk assessments, brief counseling, motivating help-seeking, engaging social supports, and assisted referrals to mental health services.¹⁸⁻²⁰

In this article, we present a stepped care approach, a variant of collaborative care,³⁹ to address PD as part of well-child care. A stepped care approach in the pediatric context has several advantages. First, PD (like major depression) is a heterogeneous condition, which means that mothers can present with a range of symptoms, from mild episodic symptoms that are quite amenable to a variety of interventions, to more severe and chronic symptoms that are less responsive to standard care. Second, the frequency of well-baby visits during the first year of life provides multiple opportunities for screening and tracking PD, increasing the likelihood of detecting women in need and preventing both disruptions in mother-child attachment and exposure to poor safety practices. Third, this model maximizes the use of existing resources by focusing on relevant familial psychosocial risks and targeting supports to mothers for enhancing child development. The provision of such early intervention strategies *within* pediatric primary care increases the likelihood of timely and non-stigmatizing interventions for many women and potentially reduces the burden on limited specialty mental health services.

The ability to match particular interventions to particular women can determine how effective and/or cost-effective a screening program is as part of a care system. There are currently no biomarkers available to guide intervention selection for depression. In the absence of established guideposts, we built upon existing research and practical knowledge to develop a care pathway that is designed to match existing resources to levels of need and to be feasible within pediatric primary care. First, we used elements of PD management practices found to be common across pediatric primary care.^{18,19} Second, we integrated current knowledge about barriers to care for women

and effective engagement strategies that have been specifically developed to facilitate help-seeking among mothers with depression.^{40,41} Third, we identified brief evidence-based intervention strategies that pediatric practice staff could implement with appropriate training and support and that address common issues during the postpartum period that put women at risk for major depression.^{42–44} Together, these various knowledge bases informed the development of what we believe to be a viable and testable approach.

Stepped Care Pathway

In stepped care, a planned set of services are mapped out to standardize care, ensuring uniformity and consistency of care for all postpartum women. The concept of stepped care balances responsibility, feasibility, and scope, such that pediatric providers offer care to minimize disruption and optimize results and costs by offering the least intensive care needed for benefit. Simpler interventions are used first, and care is stepped up or intensified according to the mother's risk level and response, with referrals to specialty care as clinically indicated.^{45,46}

Figure 1 depicts the stepped care pathway. This model outlines four steps for managing PD, as part of well-child care.

Step 1: Screening for depressive symptoms

Several depression screening tools exist and can significantly increase detection of depression.^{26,47,48} Both the Edinburgh Postnatal Depression Scale (EPDS) and the Patient Health Questionnaire (PHQ-9) are most commonly used to screen for PD in studies located in pediatric and community-based settings.^{18,49} Standard cutoff scores for both the EPDS and PHQ-9 are 10 (for possible depressive disorder). Women who score in the severe range (a score of 19 and above on both the EPDS and PHQ-9) or who endorse self-harm should be directly referred to a behavioral health specialist.

There are currently no clear recommendations on periodicity of screening. In the absence of data, a pragmatic approach would be to conduct a first systematic screening at 6–8 weeks postpartum (or to coincide with the 2-month well-baby checkup). Postpartum blues, which are milder and more transient, are common among up to 80% of new mothers and tend to resolve within 2 weeks postpartum.⁵⁰ Somatic complaints common among mothers of new babies (*e.g.*, fatigue and lack of sleep) also overlap with key symptoms of depression. Early screening, especially in the first weeks postbirth, tends to be unstable.⁵¹ Screening at the 2-month well-baby visit thus avoids false positives due to the conflation of depression symptoms with complaints that are common during the early postpartum period.

Because the risk period for depression increases over the postpartum period, with peaks documented through 6 months,^{9,52} screening should be integrated into routine practice and repeated at all well-child visits up to at least the 6-month well-baby visit.

Practice implications. Routine and formal screening using a validated screening tool for depression improves identification of depression in primary care and can lead to earlier treatment of PD.^{26,47,48} Common screening tools can be self-administered or administered by various providers, office staff, and/or allied health professionals. In busy pediatric practices, such systematic screenings allow for identification

of mothers whose persistent depression or distress may otherwise go unrecognized and unaddressed. Given prevalence estimates and studies based in real-world practices, pediatric practices can expect to detect up to 34% cases over the 12-month postpartum period.^{9–11,38,53,54} These numbers may be higher among low-income and minority women,^{55–58} who are also more likely to have characteristics associated with an increased risk of chronic and severe depression.⁵⁹

Step 2: Psychosocial risk assessment to triage care

Determining the likelihood of a depression diagnosis, symptom severity and functional impacts are the first steps in developing a care plan. Understanding contributing factors through a systematic risk assessment can be useful in targeting and contextualizing the types of supports pediatric providers can offer.⁶⁰ Standardized tools for systematically assessing psychosocial risks associated with perinatal depression have been fielded in primary care settings;^{61–63} such tools have been implemented with limited supervision from mental health specialists. This approach allows scarce specialty care resources to be focused on highly and/or persistently symptomatic women.

As part of the stepped care pathway, a risk assessment is thus used to develop a care plan commensurate with risk profile. As shown in Figure 1, a risk assessment should be conducted for women who score above the clinical cutoff on a screener. Such an assessment typically includes an evaluation of family history of depression, prior episodes of major depression, depression during pregnancy, and past psychiatric history. Other important environmental risks include level of psychosocial supports, marital relationship, current stressful life events, trauma and other adverse childhood experiences, maternal coping capacity (*i.e.*, ability to address stress and use resources to manage adverse situations), and financial problems.^{15,47,64} Presence of multiple risk factors increases the likelihood of depression. In addition, infant temperament, health status, and presence of special needs, as well as maternal response to these stressors, should be considered in the assessment.

As part of risk assessment, mothers who endorse thoughts of self-harm on a screener (regardless of her overall score on the screener) should be followed up urgently to assess suicidal intent and plans. It is also critical to be observant about the presence of rare, but serious indicators of psychotic symptoms (*e.g.*, hearing voices commanding her to hurt herself or her baby) and thoughts of infant harm (*e.g.*, drowning the baby in the bath and dropping the baby). The presence of any of these indicators should immediately trigger a crisis management protocol and appropriate referrals as warranted (*e.g.*, emergency behavioral health, child protective services, *etc.*) (Fig. 1). Women with severe or persistent depressive symptoms or complex psychiatric histories (*e.g.*, bipolar disorder and schizophrenia) should be referred to specialty care.

Practice implications. Standardized risk assessment tools for assessing perinatal risks for depression are being used in primary care settings (*e.g.*, the Postnatal Risk Questionnaire).^{61–63} Notably, these maternal risk indicators overlap substantially with those found in psychosocial risk tools developed for assessing familial risk in pediatrics and can readily be integrated into routine developmental screenings.^{65,66} Such standardized tools may be conducted in person, on-line, or over the phone depending on the provider and patient needs.

FIG. 1. PPD Stepped Care. ^aExplore medication as a treatment option and refer as appropriate. ^bMH treatment onsite if expertise available. ^cPut in place linkages to MH services/resources. ^dConsider early follow-up visit to assess maternal risk for depression and infant's well-being. PD, postpartum depression; Sx, symptom.

Guidelines for management based on risks are being tested and may be conducted by trained health professionals, including doctors, nurses, or allied health professionals.⁶³

Our care pathway does not include a diagnostic assessment for several reasons. First, diagnosing maternal depression is outside the scope of responsibility of pediatric providers and uncommon in models of PD care management models found in the literature.¹⁸ Second, requiring a diagnosis as a precursor to care provision is a known deterrent for many postpartum women.^{20,37} Third, the presence of self-reported maternal depression symptoms serves as an important indicator of caregiver

distress with significant impact on caregiving activities, regardless of diagnosis.³⁷ It is not uncommon for clinicians to treat symptoms rather than diagnoses. Requiring a diagnostic interview as a basis for intervention has led to "missed opportunities, selection bias, and possible treatment disparities."⁶⁷ Given the relatively low risk involved in providing brief evidence-based behavioral interventions, the requirement for a diagnosis for treatment, especially among less clinically complex populations who typically present in primary care, may not be warranted and in fact may compromise clinical quality and could be considered unethical. Within pediatrics, providing supports in a primary

care context for postpartum women has been shown to be effective⁶⁸ and should be an important part of family-centered practice for mothers whose distress can negatively impact parenting effectiveness.²³ By framing care for PD in tandem with effective parenting, we increase the likelihood of timely and nonstigmatizing care, especially for women who might be deterred by practical or attitudinal barriers to mental healthcare.⁶⁹

For women who screen positive for depression symptoms in the mild-to-moderate range, we outline below a series of steps that include levels of supports titrated to risk profile and maternal responsiveness.

Step 3: Care management based on risk profile

Women who fall in the middle section of the care pathway, defined as those with moderate levels of depression symptoms (e.g., EPDS 10–19 or PHQ 10–19 range), are the focus of PD management within pediatric practices. These moderately symptomatic women are most likely to benefit from supportive interventions that could be integrated as part of well-child care.⁶⁸ Figure 1 presents options for risk profiles based on screening scores and risk assessment. For women with moderate risk profiles (e.g., moderate symptoms and few psychosocial risks), psychoeducation about PD, including the myths and realities of motherhood, distinctions between baby blues versus more chronic depression symptoms, ways to engage social supports, and other self-help activities could be readily delivered as part of anticipatory guidance during well-child visits.⁷⁰ Extra follow-up visits can be scheduled similar to visits that might be scheduled for a breast feeding infant with suboptimal weight gain. Pediatric providers are in a good position to educate, encourage, and facilitate access to services and resources increasingly available through the Internet and/or informal supports such as family networks or groups for mothers, all of which are effective in buffering current life stressors that contribute to depressive symptoms.^{71,72}

For women with higher risk profiles (e.g., moderate levels of symptoms and numerous psychosocial risks), typical options in pediatrics include active linkage to specialty care outside of pediatric primary care. Our care pathway includes an option of providing behaviorally-based management of PD by trained pediatric providers or allied health providers, ideally to coincide with well-child visits to increase likelihood of adherence. Studies have shown that depressed mothers share common needs for support around nonmedical issues such as relationship with the infant's father, parenting practices to increase attachment to the infant, financial stressors, employment, and loss/grieving. Targeted interventions to address these issues have been shown to be effective for addressing depression and to prevent the development of major depression among at risk women.^{42–44,73,74} Core components of evidence-based strategies for depression, such as pleasant activity planning, stress management, developing social supports, managing relationship expectations, effective communication, and problem solving skills, are readily integrated into pediatric primary care visits. A dotted line in our model is thus used to signify a promising, but underutilized and untested option of more actively managing PD, adapting behaviorally based strategies for pediatric practices. These are real options for practices with the necessary support staff.

Mothers at imminent risk should be directly triaged to crisis management (i.e., immediate referral to emergency

mental health services; depicted on the far right of the care pathway). These include mothers who endorse concerns about harming the infant, suicidal intent, or have complicated risk profiles that include severe depression symptoms and comorbid psychological problems such as panic attacks, substance abuse, other psychiatric conditions, and medical conditions. These conditions represent risks to child safety, and child protective service involvement should be considered, especially if alternate adult care for the infant is not available in the home. On the far left of the care pathway, mothers at low risk for depression, which would be the majority of those seen in a typical pediatric practice, should be monitored. Mothers at the milder end of the depression spectrum (PHQ-9 or EPDS score of 5–9) have a good likelihood of spontaneous recovery, so watchful waiting, with brief psychoeducation about depression and strategies to address normal stressors related to having a new infant, is justifiable. These mothers should be rescreened at the next well-child visit and at the 6-month follow-up, when depression risk peaks.¹¹

Practice implications. A range of intervention options, potentially feasible within pediatric settings, are outlined in the care pathway (Fig. 1). The decision to manage PD within pediatric settings or elsewhere should be a joint decision by the pediatric provider and mother. Mothers should be informed about the efficacy of psychosocial and pharmacotherapy treatments, both of which are effective in reducing depressive symptoms.^{42,75,76} Options for follow-up care should be discussed and decisions based on various factors, including maternal preference and available competency within the pediatric setting. Active facilitated linkage, especially those that engage mothers' intrinsic motivation and support help-seeking behaviors, may be needed for successful follow-through.^{40,41,77}

The availability of brief interventions targeting maternal stressors that typically occur during the postpartum period and doing so as part of well-child care is a promising, but as yet unproven, strategy within pediatrics. This option is particularly important for mothers for whom barriers to care may seem insurmountable. For example, stigma associated with mental health, attitudes, and beliefs about motherhood, practical constraints associated with motherhood, lack of insurance, concerns about medication use while breastfeeding, and fears of provider judgment and social services involvement frequently prevent mothers from seeking timely care.^{5,20,37,78,79} Behavioral interventions could be delivered as part of anticipatory guidance and/or collateral visits to address familial psychosocial risks that have adverse impacts on the infant. With training and support, such pragmatic interventions could be delivered by pediatricians or members of the pediatric care team, including health educators, care managers, nurses, and social workers.

Step 4: Follow-up and monitoring PD

Expert consensus suggests follow-up minimally at the 6-month well-care visit.^{9,10,23,80–84} Among those deemed at high risk, the care pathway recommends periodic reassessment, including subsequent assessment for life events that may influence maternal and child well-being. Among those mothers in remission or who screen negative, reassessment in

6 months is recommended, unless there is a clinical concern. Based on levels of maternal depressive symptoms at follow-up, facilitated referral to specialty care is warranted for unremitting depressive symptoms.

Practice implications. Maternal depression, especially if unaddressed, can last up to a year or more, making continuous monitoring important.^{58,85} No consistent recommendation or evidence exists to support specific time points for rescreening or follow-up after the initial screen.⁸⁰ The care pathway provides suggested time points for follow-up, including key events that should trigger specific provider actions. Follow-up care should pay specific attention to mothers who continue to be symptomatic and who have not been successfully linked to specialty services. A plan for managing these mothers, including enhanced efforts at facilitated referrals and augmented supports within primary care, should be developed. This can be a focus of case managers and care coordinators in patient-centered medical home models in pediatric practices.

Challenges to Implementation in Pediatric Care Context

The practical, ethical, and legal challenges of screening and managing PD as part of pediatric care are real but not insurmountable.^{26,30,31} National standards of care concerning the screening and management of PD are evolving, especially in pediatrics. PD is a maternal condition, but has well-established adverse impacts on child well-being, and treating PD likely confers positive benefits for the child. This makes defining the appropriate boundaries for care by pediatric providers complicated, especially when treatment access for mothers referred out is limited both by the scarcity of specialty mental health services, as well as the reluctance of new mothers to engage in mental health treatment.

At a practical level, pediatric providers report lack of confidence and skill in effectively managing mothers who screen positive for PD.^{30,86} Lack of reimbursement also creates a disincentive for screening, although this is changing in light of the updated USPTF recommendations and CMS billing guidance.^{24,25,87} From an ethical standpoint, pediatric providers, whose patient is the child, wrestle with issues related to scope of practice. Providers who see social and environmental factors as beyond the scope of the pediatrician are less likely to screen for maternal depression.³² While treating maternal depression is outside the scope of pediatric practice, providing supportive interventions to facilitate maternal capacity for enhancing child development is well within the pediatrician's purview as part of family-centered practice.²³ In addition, concerns around confidentiality, sensitivity around mental health records, and the extent to which maternal mental health issues should be documented in the child's chart are issues that must be addressed. System supports, both at the organizational and policy levels, must be augmented to facilitate pediatrician's abilities to effectively manage PD as part of family-centered practice. Financial incentives to screen and provide supportive interventions, tracking systems to follow those at high risk, and linkage to adult primary care, as well as community resources are key. Value-based payment and Patient Centered Medical Home initiatives could provide resources to support screening processes, patient registries to facilitate case management of

higher risk patients, integration of behavioral health providers, and linkages to community resources.⁸⁸

In Table 1, we outline key challenges for implementing such a care pathway, as well as suggest pragmatic strategies to address them. These strategies are multilevel in nature and are based on our clinical experience, as well as those discussed or outlined by others.^{27,30,64}

Discussion/Future Directions

To date, large-scale screening initiatives for PD in the United States have yielded limited benefits primarily because of inadequate capacity and supports for follow-up.^{8,17,18,49} For screening efforts to realize their potential of improving health outcomes for both the woman and her child, systems must be in place to ensure that mothers receive timely interventions to support their parenting effectiveness. Because depression during pregnancy is a strong predictor of PD, screening efforts should begin during pregnancy, including the identification of psychosocial risks that may require putting into place services and supports to aid vulnerable mothers in the transition to parenthood.⁸⁹ We see this proposed model, which focuses on managing PD as part of well-child care, as part of a continuum of care that supports the high-risk woman in the transition to parenthood.

Efficacious screening, interventions, and treatments for depression exist. However, like many efforts to move evidence-based practices from bench to bedside, the failure to address this debilitating maternal condition reflects the challenges inherent in implementing effective practices in real-world contexts. The need to establish such "adequate systems of care" is a clear obstacle to PD screening.^{18,24,49} Given the importance of pediatric settings as a point of care access for postpartum women, developing effective approaches for managing PD *within* pediatrics is critical to both maternal and child well-being. Although pediatric providers may be wary of serious but much rarer events such as suicidal intent or postpartum psychosis, such incidents should be managed and treated as they would any other emergency or medical problem such as the discovery of a tumor or meningitis.

In the United States, managing PD is a challenge to both practice and policy, in part, because of a healthcare system that treats children separately from adults. While the new USPTF recommendations for screening perinatal depression in primary care provide an impetus for tackling this important multigenerational problem, our knowledge about how best to do so and to provide subsequent supports is still evolving. Recent guidance from CMS's Informational Bulletin on maternal depression screening and treatment clearly encourages the use of Medicaid to reimburse for such services as part of well-child care; this guidance has been translated into more updated and specific guidance by some states, such as New York, allowing providers to bill for repeated postpartum screening under the infant's Medicaid.⁹⁰ Such policy actions have important implications for supporting the integration of maternal depression management as part of well-child care.

While collaborative care models have been tested within primary care, integrated or coordinated depression care systems are still not typically available in pediatric settings. In response to primary care providers' concerns about tackling mental health issues, some states have created innovative ways to address specialty care access limitations (*e.g.*, New

TABLE 1. STRATEGIES TO OVERCOME CHALLENGES TO IMPLEMENTATION OF STEPPED CARE

<i>Challenge issue</i>	<i>Suggested strategies</i>
Provider screening and risk assessments	<p>Work out staffing and work flow and integrate into overall plan for screening in the practice (electronic systems, previsit planning, who presents, and who scores).</p> <p>Provide trainings about PD and its effects on child development.</p> <p>Provide trainings on the use of formal screening and risk assessment tools.</p> <p>Partner with behavioral health specialists to develop grand rounds or workshops designed for pediatric providers.</p> <p>Include such trainings as part of pediatric residency programs.</p> <p>Develop decision tools, such as algorithms, to guide decision-making for follow-up care of mothers who screen positive.</p>
Provider documentation	<p>Document screening, psychosocial risks, and counseling efforts as it pertains to infant care; document referrals and follow-up.</p> <p>Consider the option of a sensitive information section akin to documenting care about adolescent reproductive health and HIV status.</p> <p>With the mother's permission, create agreements among providers for sharing pertinent information that impacts the health of the mother and child, especially between prenatal and pediatric primary care providers (both of whom are screening for PD).</p>
Practice: scope of responsibilities	<p>Partner with behavioral health specialists to integrate psychosocial supports <i>within</i> the practice, especially for mothers at high risk.</p> <p>Partner with behavioral health specialists, obstetrics, and gynecology or adult primary care to facilitate treatment access for high-risk mothers.</p> <p>Develop targeted networks and resources to link mothers to both informal and formal services.</p> <p>Develop provider competency around effective counseling strategies, targeting salient issues during the postpartum period such as engaging or building support networks and coping tools to enhance caregiving capacity.</p>
System/organizational supports	<p>Reimburse and/or incentivize pediatric providers to screen and manage PD as part of well-child care. Screening codes for PD in pediatrics exist and psychosocial intervention related to anticipatory guidance codes and counseling can be adapted for managing PD.</p> <p>Create registries for high-risk infants based on psychosocial risks, including PD, so that care intensity can be tailored, improving efficiency within pediatrics.</p> <p>Develop organizational support networks to systematically link pediatrics to specialty care that mothers access (<i>e.g.</i>, adult primary care, obstetrics and gynecology, and behavioral health).</p> <p>Develop networks to community-based services that support mothers and families.</p> <p>Integrate behavioral health professionals within pediatric practices to engage mothers with complex needs and to provide ongoing support to pediatric providers as they address milder cases.</p> <p>Use case managers/care coordinators/community health workers to facilitate linking families to needed services available from community-based agencies.</p> <p>Develop effective tracking systems (with appropriate confidentiality but also allowing communication needed for care coordination) across services that facilitate monitoring and sharing of mother/child progress and outcomes.</p> <p>Use funding streams that support Value Based Payment and Patient Centered Medical Home initiatives to provide resources to support integration of behavioral health providers, screening processes, and management of registries with case management of higher risk patients.</p>

York State's Project Teach⁹¹ and Massachusetts's Child Psychiatry Access Project). A recent expansion of the Massachusetts Child Psychiatry Access Project specifically addresses barriers to effective treatments among perinatal women. This initiative, called MCPAP for Moms,^{92,93} provides trainings and tool kits for providers on evidence-based depression management guidelines. In addition, MCPAP for Moms includes real-time telephone-based psychiatric consultations and care coordination for frontline providers and linkages to community-based resources. Such resources may be crucial for successfully integrating the management of PD in primary care, especially for under-resourced pediatric practices.

Although there are reasonably good data to support the various steps in the care pathway as discrete activities,

data are limited about the types of supports necessary for the implementation of the pathway as a whole and its sustainability. Research to address implementation barriers, as well as the costs and benefits of implementing such a model, is critical.²⁴ Consideration of both practice population characteristics, as well as available supports to the pediatric practice, should be considered in adopting any new model of care. A care pathway with associated key targets for a systematic and stepped response to PD represents an important first step toward improving care for women and their children. The proposed care pathway provides a testable model for how an important public health concern (effects of postpartum depression) could be flexibly integrated into a family-centered medical home to improve child well-being.

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