EDITORIAL

Perinatal Depression Recommendations for Prevention and the Challenges of Implementation

Marlene P. Freeman, MD

In this issue of *JAMA*, the US Preventive Services Task Force (USPSTF) recommends "that clinicians provide or refer pregnant and postpartum persons who are at increased risk of perinatal depression to counseling interventions" (B recommendation; net benefit is moderate).¹ This recommendation is supported by the accompanying evidence review that evaluated the benefits and harms of primary care-relevant interventions to prevent perinatal depression.²

Perinatal depression, defined as a major or minor depressive episode that occurs during pregnancy or within the postpartum year, affects approximately 11.5% of new mothers annually in the United States,³ representing a sub-

←

Related articles pages 580 and 588

+

Related articles at jamainternalmedicine.com jamapediatrics.com jamapsychiatry.com stantial burden for women and families. In addition to risks to the mother, there are important risks for the infant associated with antenatal depression, including preterm birth, low birth weight, and longer-term temperament and behavioral problems.^{4,5}

Postpartum depression also is associated with short- and longer-term risk factors for the infant, including effects on bonding and attachment, success of breastfeeding, cognitive and social development, and the risk of future psychopathology.⁶ Therefore, the targeted prevention of perinatal depression is important, and if done successfully will improve a broad range of outcomes for women and their children.

The USPSTF previously recommended broad screening for acute depression among adults, including pregnant and postpartum women.7 The current recommendation advances the previous more broad recommendation by focusing on prevention rather than screening for acute illness, and the recommendation calls for a specific treatment intervention.¹ The recommendation to refer women at risk for perinatal depression to counseling is based on evidence from clinical trials. The task force completed a rigorous review of clinical studies to prevent perinatal depression, including psychotherapies, antidepressants, and complementary and alternative medicines. Fifty studies (49 randomized clinical trials, 1 nonrandomized controlled intervention study) met inclusion criteria. Counseling or psychotherapeutic interventions were the most widely studied and were demonstrated to be associated with a lower likelihood of onset of perinatal depression. Other treatment modalities were not supported by robust effects or lacked sufficient data to lead to meaningful conclusions.

There are important challenges to overcome if these recommendations are to be implemented. Feasibility will require a commitment of resources and continued research into how to (1) identify at-risk women, (2) connect identified women to evidence-based treatments, and (3) assess outcomes.

The goal of universal screening for depression in adults, including pregnant and postpartum adults, previously recommended by the USPSTF was straightforward. Screening programs have been widely implemented, and forms of screening are mandated in a number of states. The majority of women with perinatal depression can be identified with the use of brief, self-rated scales that can be used in primary care settings with minimal time and burden on clinical staff. Despite the screening recommendations, there has been variable success in screening leading to appropriate treatment referrals, treatment engagement, and improved clinical outcomes, with some studies suggesting extremely low rates of treatment engagement and remission of depression after screening.⁸

It is a greater challenge to identify women at risk compared with those experiencing perinatal depression. As the task force indicates, "there is no accurate screening tool for identifying women at risk of perinatal depression and who might benefit from preventive interventions."1 Unlike self-rated tools, it is more complex to perform a risk assessment based on a range of historical and demographic risk factors, and it is unclear to what degree these predict perinatal depression. Based on the summarized studies, women at risk may be identified by targeting those with histories of depression, subthreshold depressive symptoms, and certain sociodemographic factors (ie, economically disadvantaged, single/young, unplanned pregnancy). The task force notes that a pragmatic approach would be to systematically identify women with 1 or more risk factors, which would yield a substantial proportion of pregnant and postpartum women who would then need to be referred to counseling. The development and validation of easyto-use screening tools would make it easier to discern who should be referred to treatment. In addition, future research might elucidate biomarkers to aid in the identification of women at particularly high risk of perinatal depression and may include biomarkers of stress or inflammation or genetic variables that indicate vulnerability.

The ideal setting in which to identify women at risk for perinatal depression is where they receive care, because women have multiple visits during pregnancy and in the postpartum period and are often motivated for self-care and behavioral change. However, clinicians who provide obstetrical care may not have the expertise or time during clinical visits to perform assessments and tailor referrals to women who are identified. In addition, after provision of referrals for counseling, further resources will be required longitudinally to ascertain whether women engage in treatment and whether they experience perinatal depression. If perinatal depression develops despite efforts for prevention, protocols and resources will be needed for acute treatment.

As resources are developed for the prevention of perinatal depression, it is crucial that priority is placed on adherence to the previous recommendations for screening for adult depression and its treatment. These current recommendations offer an opportunity to redouble efforts toward identifying and meeting the needs of women who present during pregnancy and postpartum with risk of acute psychiatric illness.

The delivery of effective care on a large scale will require creative solutions. The counseling interventions with the most robust efficacy were cognitive behavioral therapy and interpersonal psychotherapy. These specific forms of psychotherapy require education and training. The delivery to large numbers of women presents a challenge. It is unlikely that most women in the United States have easy access to a specialist who can deliver these treatments. Therefore, options such as training of lay personnel or large-scale telehealth or internet- and smartphone-based platforms should be considered. Also, multidisciplinary teams should be involved in the care of women at the highest risk of severe illness and specialty consultation should be available for women who develop acute psychiatric illness and require more complex care.⁹

Further research will be needed to determine the most effective prevention strategies for perinatal depression, how to deliver them across various communities, and how to tailor them to the needs of individuals. There was substantial heterogeneity in counseling protocols reviewed in the evidence report. It may be possible with additional research to identify the ideal number of sessions, the aims and content of the sessions, and when sessions should be delivered during the perinatal period to be the most effective. The ultimate goal is to personalize treatment based on the individual's risk factors, treatment preferences, culture, sociodemographic characteristics, and access to mental health care.

Follow-up after referral to counseling will be needed to demonstrate improved outcomes in the clinical setting. Availability and access to care present potential hurdles, and stigma presents another potential barrier for some women to seek and accept mental health care. Effectiveness studies in a diverse population are needed. It is unclear whether the advantages of counseling found among patients in clinical trials will be generalizable to women across various communities, and a focus on disparities must also be considered.¹⁰ As with other psychiatric disorders, perinatal depression encompasses substantial heterogeneity, and a single approach is unlikely to serve all women who are identified as at risk.¹¹ Therefore, counseling may not be sufficient for many at-risk women, and nextstep treatments for those who experience depression despite engagement in counseling will need to be available to best serve this population. Moreover, subgroups of women may benefit from other first-line treatments for the prevention of perinatal depression, and further study may differentiate who will be best served by specific treatments.

In addition, a substantial number of reproductive-aged women have serious psychiatric disorders and will be identified as at risk for perinatal depression, although their needs may be more comprehensive. Women with existing major depressive disorder often discontinue medication during pregnancy, putting them at high risk of depressive recurrence.¹² Women who are identified as at risk for perinatal depression may have psychotic disorders, bipolar spectrum disorders, anxiety disorders, and substance use disorders, and there is comorbidity among psychiatric disorders. Therefore, systematic provisions for referral and treatment for other psychiatric disorders should be considered. For women with severe psychiatric disorders who may be well but at risk of relapse, larger studies to assess pharmacotherapy are warranted, because studies conducted to date have been small and have assessed a limited number of medications.

In conclusion, the USPSTF recommendations to screen and refer women at risk for perinatal depression to counseling interventions have the potential to improve many lives, since an estimated 400 000 women in the United States have perinatal depression.¹³ Even though the focus of these recommendations is on pregnancy and the first postpartum year, effective prevention of perinatal depression may lead to a trajectory of better outcomes for a lifetime for both mother and child. While there are challenges, optimism is warranted, as an increasing number of studies and programs are assessing the delivery of therapies using technology and social media, which hold the promise of delivering care to a diverse population of women. If the health care delivery system can make the necessary investment to implement these recommendations, they may return great dividends in the form of enhanced wellbeing of mothers and their offspring.

ARTICLE INFORMATION

Author Affiliation: Department of Psychiatry, Massachusetts General Hospital, Boston, Massachusetts.

Corresponding Author: Marlene P. Freeman, MD, Department of Psychiatry, Massachusetts General Hospital, Simches Research Bldg, 185 Cambridge St, Second Floor, Boston, MA 02114 (MFREEMAN@ mgh.harvard.edu). Conflict of Interest Disclosures: Dr Freeman reported participating in investigator-initiated trials/research for Takeda, JayMac, and Sage; serving on advisory boards for Otsuka, Alkermes, Janssen, Sage, and Sunovion; serving on an independent data safety and monitoring committee for Janssen (Johnson & Johnson); and editing the GOED (Global Organization for EPA & DHA Omega-3) newsletter. As an employee of Massachusetts General Hospital (MGH), Dr Freeman works with the MGH National Pregnancy Registry (current sponsors: Teva, Alkermes Inc, Otsuka America Pharmaceutical Inc, Forest/Actavis, Sunovion Pharmaceuticals Inc) and with the MGH Clinical Trials Network and Institute, which has received research funding from multiple pharmaceutical companies and the National Institute of Mental Health.

jama.com

REFERENCES

1. US Preventive Services Task Force. Interventions to prevent perinatal depression: US Preventive Services Task Force recommendation statement [published February 12, 2019]. JAMA. doi:10.1001/ jama.2019.0007

2. O'Connor E, Senger CA, Henninger ML, Coppola E, Gaynes BN. Interventions to prevent perinatal depression: evidence report and systematic review for the US Preventive Services Task Force [published February 12, 2019]. *JAMA*. doi:10.1001/ iama.2018.20865

3. Ko JY, Rockhill KM, Tong VT, Morrow B, Farr SL. Trends in postpartum depressive symptoms–27 states, 2004, 2008, and 2012. *MMWR Morb Mortal Wkly Rep.* 2017;66(6):153-158. doi:10.15585/ mmwr.mm6606a1

4. Jarde A, Morais M, Kingston D, et al. Neonatal outcomes in women with untreated antenatal depression compared with women without depression: a systematic review and meta-analysis. *JAMA Psychiatry*. 2016;73(8):826-837. doi:10. 1001/jamapsychiatry.2016.0934

5. Madigan S, Oatley H, Racine N, et al.

A meta-analysis of maternal prenatal depression and anxiety on child socioemotional development. J Am Acad Child Adolesc Psychiatry. 2018;57(9): 645-657.e8. doi:10.1016/j.jaac.2018.06.012

Pearlstein T, Howard M, Salisbury A, Zlotnick C.
Postpartum depression. *Am J Obstet Gynecol*.
2009;200(4):357-364. doi:10.1016/j.ajog.2008.11.
033

7. O'Connor E, Rossom RC, Henninger M, et al. Screening for Depression in Adults: An Updated Systematic Evidence Review for the U.S. Preventive Services Task Force. Rockville, MD: Agency for Healthcare Research and Quality; 2016.

8. Cox EQ, Sowa NA, Meltzer-Brody SE, Gaynes BN. The perinatal depression treatment cascade: baby steps toward improving outcomes. *J Clin Psychiatry*. 2016;77(9):1189-1200. doi:10.4088/JCP.15r10174

9. Hoffman MC, Wisner KL. Psychiatry and obstetrics: an imperative for collaboration. *Am J Psychiatry*. 2017;174(3):205-207. doi:10.1176/appi.ajp. 2016.16111233

10. Mukherjee S, Trepka MJ, Pierre-Victor D, Bahelah R, Avent T. Racial/ethnic disparities in

antenatal depression in the United States: a systematic review. *Matern Child Health J.* 2016;20 (9):1780-1797. doi:10.1007/s10995-016-1989-x

11. Putnam KT, Wilcox M, Robertson-Blackmore E, et al; Postpartum Depression: Action Towards Causes and Treatment (PACT) Consortium. Clinical phenotypes of perinatal depression and time of symptom onset: analysis of data from an international consortium. *Lancet Psychiatry*. 2017;4 (6):477-485. doi:10.1016/S2215-0366(17)30136-0

12. Cohen LS, Altshuler LL, Harlow BL, et al. Relapse of major depression during pregnancy in women who maintain or discontinue antidepressant treatment. *JAMA*. 2006;295(5): 499-507. doi:10.1001/jama.295.5.499

13. Earls MF; Committee on Psychosocial Aspects of Child and Family Health American Academy of Pediatrics. Incorporating recognition and management of perinatal and postpartum depression into pediatric practice. *Pediatrics*. 2010; 126(5):1032-1039. doi:10.1542/peds.2010-2348