

Addressing the Unmet Need for Maternal Mental Health Services in Low- and Middle-Income Countries: Integrating Mental Health Into Maternal Health Care

CEU

Molly E. Lasater, MPH, Madeleine Beebe, MPH, BSN, RN, Ashley Gresh, MSN, MA, RN, Kirsten Blomberg, MSN, RN, Nicole Warren, CNM, PhD, MPH

INTRODUCTION

Most initiatives to reduce global maternal morbidity and mortality address direct causes such as hypertensive disorders and hemorrhage. But other, more subtle but serious threats to childbearing women often go unaddressed, such as common perinatal mental health disorders. These include nonpsychotic mental disorders, such as depression, anxiety, and somatoform disorders, which are commonly found in community and primary care settings and are responsible for increased morbidity and mortality among childbearing women worldwide.^{1,2} Perinatal depression, defined here as a depressive episode beginning during pregnancy or up to one year postpartum, is the most common perinatal mental disorder and the second leading contributing factor to the disease burden of childbearing women globally.^{1,3,4} Despite their high prevalence, common perinatal mental disorders often go undiagnosed and untreated due to a lack of or limited mental health infrastructure. This is particularly true in low- and middle-income countries where scarce resources limit the ability of the health system to address even the most pressing needs.

A key approach to addressing this gap in need and care is to integrate mental health into existing maternal care services. This approach is consistent with midwifery core competencies⁵ and situates midwives as critical partners in efforts to address women's mental health in low- and middle-income countries. But, as with any other threat to women's well-being, midwives can appropriately intervene only if they have the tools they need. In the case of common perinatal mental disorders, all midwives should have the tools to screen for and provide appropriate care and referrals.⁶ In this commentary, we argue for the integration of mental health into maternal health services and for the use of locally relevant screening tools to identify women who may need support, particularly at the community level.

BURDEN, RISK FACTORS, AND CONSEQUENCES OF COMMON PERINATAL MENTAL DISORDERS

The gap between need and services for maternal mental health is greatest in low- and middle-income countries. A 2012 systematic review describing such countries reported that 15.6% of pregnant women and 19.8% of women who had recently given birth were experiencing common perinatal mental disorders.⁷ These figures stand in stark contrast to the 10% and 13% depression prevalence rates found in high-income countries for antenatal and postpartum depression, respectively.^{8,9} In low- and middle-income countries, known risk factors for common perinatal mental disorders include low educational attainment, poverty, gender-based violence, younger age, primigravida status, unwanted pregnancy, mood changes during pregnancy, preterm birth, giving birth to a newborn who is not the desired sex, interpersonal conflict, polygamy, unemployment, and poor newborn health.^{1,10-14}

Common perinatal mental disorders may have devastating transgenerational effects. Among women, untreated perinatal depression is associated with increased risk for functional impairment and poor quality of life.^{4,15-17} Children of mothers with perinatal depression may exhibit poor growth development, insecure attachment, elevated rates of illness, and emotional and behavioral problems.^{4,15,18} A systematic review of maternal depression and child development in developing countries estimated that 23% to 29% fewer children would be underweight or stunted had the infant population not been exposed to maternal depressive symptoms.¹⁹ Such effects may extend beyond the mother-child dyad, negatively impacting educational attainment and employment prospects, and ultimately perpetuating a cycle of poverty among future generations.²⁰

UNDERDIAGNOSIS AND TREATMENT: BARRIERS TO ADDRESSING THE PROBLEM

Despite their prevalence and consequences, common perinatal mental disorders are infrequently diagnosed and treated, often because of stigma and lack of awareness at the community level, poverty and difficult geographic access at the environmental level, and insufficient investment in the mental health infrastructure. Moreover, many low- and middle-income countries allocate less than 1% of their health budgets for the development and maintenance of their mental

Address correspondence to Molly E. Lasater, MPH, Social and Behavioral Interventions Program, Department of International Health, Johns Hopkins Bloomberg School of Public Health, 615 North Wolfe Street, Room E5031, Baltimore, MD 21205-2103. E-mail: Mlasater@jhu.edu



health systems, contrasted with the 5.6% spent in the United States on similar services.^{21–23} This translates into too few providers with basic mental health training and even fewer with mental health expertise. Furthermore, few non-mental health providers receive mental health care training, limiting their ability to identify symptoms, diagnose and treat mental disorders, or make appropriate psychiatric care referrals.¹⁸

MEETING THE NEED: INTEGRATION OF MENTAL HEALTH INTO MATERNAL HEALTH SERVICES

Maternal health providers must address these unmet maternal health needs in order to achieve the Sustainable Development Goals, specifically Goal 3's targets of reducing the global maternal mortality ratio to less than 70 per 100,000 live births and ending preventable deaths of newborns and children under 5 years of age.²⁴ There is growing consensus that this can be accomplished only by integrating mental health into primary and community-based health services, including maternal and reproductive care.^{25,26}

Low- and middle-income countries and rural settings frequently face shortages of mental health professionals.²⁷ In order to address this shortage and the resulting gap in treatment, the World Health Organization's (WHO) Mental Health Gap Action Programme Intervention Guide promotes a task-shifting approach, whereby tasks are shifted from highly trained to less highly trained health workers as a means to promote resource efficiency and enable all health workers to work at their highest skill level.^{27,28} Practically, this means that midwives and other community health workers, who may be the only trained providers in a community in low- and middle-income countries, are trained and supervised by mental health specialists to screen and deliver evidenced-based, low-cost interventions through routine primary care platforms, such as maternal health services.²⁸

A systematic review of interventions for perinatal depression delivered by community health workers in low- and middle-income countries provides evidence that culturally adapted interventions can have positive impacts on women experiencing common perinatal mental disorders.²⁹ In Nigeria, the Expanding Care for Perinatal Women with Depression (EXPONATE) study trained community midwives to provide “psychoeducation, problem solving treatment, and parenting skills” to women who had screened positive for postpartum depression.⁴ The authors demonstrated improved maternal and child health outcomes and established the potential for midwives and community health workers to successfully deliver basic mental health services.⁴ Additional evidence will also likely come from the Africa Focus on Intervention Research for Mental Health (AFFIRM) and the Programme for Improving Mental Health Care (PRIME), both multicountry initiatives in low- and middle-income countries with sites in sub-Saharan Africa that explore the impact of packages of care that integrate mental health services into primary care.^{30,31} Such packages of care are delivered in community settings by community health workers, including midwives, who are trained to identify individuals with mental disorders using locally developed and validated tools and provide manual-based counseling, under the supervision of mental health specialists.³¹ In cases of crisis, such as suicidal ideation or

behavior, or other mental health problems, such as posttraumatic stress disorder, mental health specialists are available for case management and referrals to more specialized care beyond what is available at the community level. Meanwhile, Lund and colleagues are conducting a randomized control trial in South Africa to investigate the impact of a task-shifting approach among community health workers to deliver care to women with maternal depression.³ Such studies provide much needed practical guidance and evidence from which to adapt locally relevant screening tools and intervention packages.

KEY CONSIDERATIONS: CULTURALLY RELEVANT SCREENING AND INTERVENTIONS

The use of culturally relevant screening and interventions is critical to ensure that the integration of mental health into maternal health services ultimately meets the needs of women in the communities served. While several screening tools for common perinatal mental disorders have been used in low- and middle-income countries, few are specific to perinatal depression or incorporate the unique cultural contexts of a country or region.¹⁸ Although biologic factors can explain some similarities in the presentation of perinatal depression across settings, common perinatal mental disorders may look different, or may be experienced and communicated differently, depending on local cultural contexts.^{32,33} As such, descriptions and diagnostic criteria for mental illness developed in one cultural setting, such as the *Diagnostic and Statistical Manual of Mental Disorders*, must not be presumed to be equally appropriate in other cultures.^{32,34} Items on a scale measuring functional impairment among mothers in the United States may contain items that are not applicable or relevant to rural women in sub-Saharan Africa, such as inquiry into difficulty managing one's children's extracurricular activities. Likewise, items inquiring about difficulty experienced while collecting firewood or water for cooking among rural women in sub-Saharan Africa are not applicable or culturally relevant to mothers in the United States. While in some situations it may be possible to use standard screening instruments developed in high-income settings, in other situations locally adapted or completely new screening instruments are necessary. For example, the Hopkins Symptom Checklist-25 and the Edinburgh Postnatal Depression Scale have been locally adapted and validated extensively cross-culturally.^{35,36} Moreover, consistent with the task-shifting approach, locally valid and reliable screening tools not only enable the identification of individuals with mental disorders and their access to culturally relevant interventions to improve the mother's health, and ultimately the long-term health and development of her child, but also initiates the process of referrals to specialized mental health care early on.¹⁸

A team of investigators from the Applied Mental Health Research group at Johns Hopkins University developed a methodology including qualitative and quantitative research methods to understand local cultural contexts and create locally valid instruments.³⁷ Their methods yield data about local mental health syndromes from the study population's perspective, which can be used to validate adapted screening

instruments. As an example, using this approach in rural Mali, members of our research team identified a local perinatal depression-like syndrome through a series of qualitative in-depth interviews, including freelist interviews in which the interviewer asks the interviewee to list all words and concepts related to a specific area of interest.³⁸ Findings from these methods were used to select standard screening tools for common perinatal mental disorders, which were then adapted for local use and tested for local validity.³⁹ The resulting adapted screening tool draws on internationally validated tools but incorporates elements and language unique to the southern Malian context.

CONCLUSION

Women in low- and middle-income countries suffer from untreated common perinatal mental disorders, with negative consequences for their and their children's health and future. To meet the needs of perinatal women and bridge the diagnosis and treatment gap, mental health must be incorporated into existing maternal health care systems. We acknowledge that screening for common perinatal mental disorders is only one component of improving women's mental health. For example, midwives may also need guidance on how to respond to crises such as posttraumatic stress disorder or suicidal ideation. While the evidence of what works is continuing to evolve, efforts to improve access to mental health services for women in low- and middle-income countries are needed now. Community-based treatment interventions are among the most promising approaches in low- and middle-income countries. The success of such interventions depends on the use of locally valid, culturally relevant screening tools and the frontline providers, such as midwives, who use them. Interventions for common perinatal mental disorders should be guided by best practices for which we already have consensus: look for opportunities to integrate mental health screening and treatment into existing maternal health services, and be mindful of culture when designing maternal mental health interventions. Midwives, whether in the role of clinician, researcher, or policy maker, have an important role to play in ensuring that maternal mental health services are available and accessible to women everywhere.

AUTHORS

Molly Lasater, MPH, is a predoctoral fellow with the NIMH and a doctoral candidate in the Social and Behavioral Interventions Program in the Department of International Health, Johns Hopkins Bloomberg School of Public Health.

Madeleine Beebe, MPH, BSN, RN, is a research faculty member at the Johns Hopkins Bloomberg School of Public Health, based in Bamako, Mali. She manages a public health research portfolio focused on improving maternal health in rural areas and building Mali's public health capacity.

Ashley Gresh, MSN, MA, RN, is a master's student pursuing an advanced practice degree in public health nursing and midwifery at Johns Hopkins University School of Nursing in collaboration with Shenandoah University.

Kirsten Blomberg, MSN, RN, is a returned Peace Corps volunteer, a labor and delivery nurse at Johns Hopkins Hospital,

and a midwifery student at Johns Hopkins University School of Nursing in collaboration with Shenandoah University.

Nicole Warren, CNM, PhD, MPH, is an assistant professor in the Department of Community Public Health Nursing at Johns Hopkins University School of Nursing.

CONFLICT OF INTEREST

The authors have no conflicts of interest to disclose.

ACKNOWLEDGMENTS

This study was funded by the Johns Hopkins Center for Global Health. The authors wish to thank Mariam Keita, Fatoumata Soucko, Dr. Peter Winch, Dr. Sarah Murray, Pr. Seyou Doumbia, Dr. Rheanna Platt, Dr. Jennifer Payne, Katie Hsih, the Applied Mental Health Research Group, and Hamidou Ongoiba.

REFERENCES

1. Rahman A, Fisher J, Bower P, et al. Interventions for common perinatal mental disorders in women in low- and middle-income countries: a systematic review and meta-analysis. *Bull World Health Org.* 2013;91(8):593-601i.
2. Goldberg DP, Huxley P. *Common Mental Disorders: A Bio-social Model.* London, England: Tavistock Routledge; 1992.
3. Lund C, Schneider M, Davies T, et al. Task sharing of a psychological intervention for maternal depression in Khayelitsha, South Africa: study protocol for a randomized controlled trial. *Trials.* 2014;15(1):457.
4. Gureje O, Oladeji BD, Araya R, et al. Expanding care for perinatal women with depression (EXPONATE): study protocol for a randomized controlled trial of an intervention package for perinatal depression in primary care. *BMC Psychiatry.* 2015;15(1):136.
5. Baron EC, Hanlon C, Mall S, et al. Maternal mental health in primary care in five low- and middle-income countries: a situational analysis. *BMC Health Serv Res.* 2016;16(1):53.
6. International Confederation of Midwives. Essential competencies for basic midwifery practice. <http://internationalmidwives.org/assets/uploads/documents/CoreDocuments/ICM%20Essential%20Competencies%20for%20Basic%20Midwifery%20Practice%202010.%20revised%202013.pdf>. Published 2010. Revised 2013. Accessed August 16, 2017.
7. Fisher J, Mello MCd, Patel V, et al. Prevalence and determinants of common perinatal mental disorders in women in low-and lower-middle-income countries: a systematic review. *Bull World Health Org.* 2012;90(2):139-149.
8. Hendrick V, Altshuler L, Cohen L, Stowe Z. Evaluation of mental health and depression during pregnancy: position paper. *Psychopharmacol Bull.* 1998;34(3):297.
9. O'hara MW, Swain AM. Rates and risk of postpartum depression—a meta-analysis. *Int Rev Psychiatry.* 1996;8(1):37-54.
10. Patel V. Mental health in low- and middle-income countries. *Br Med Bull.* 2007;81-82(1):81-96.
11. Abiodun O. Postnatal depression in primary care populations in Nigeria. *Gen Hosp Psychiatry.* 2006;28(2):133-136.
12. Ebeigbe P, Akhigbe K. Incidence and associated risk factors of postpartum depression in a tertiary hospital in Nigeria. *Niger Postgrad Med J.* 2008;15(1):15-18.
13. Adewuya AO. Early postpartum mood as a risk factor for postnatal depression in Nigerian women. *Am J Psychiatry.* 2006;163(8):1435-1437.
14. Weobong B, Ten Asbroek AH, Soremekun S, et al. Determinants of postnatal depression in rural Ghana: findings from the don population based cohort study. *Depress Anxiety.* 2015;32(2):108-119.

15. Bass JK, Ryder RW, Lammers MC, Mukaba TN, Bolton PA. Postpartum depression in Kinshasa, Democratic Republic of Congo: Validation of a concept using a mixed-methods cross-cultural approach. *Trop Med Int Health*. 2008;13(12):1534-1542.
16. Santoro K, Peabody H. *Identifying and Treating Maternal Depression: Strategies and Considerations for Health Plans*. Washington, DC: National Institute of Health Care Management; 2010.
17. Shidhaye P, Giri P. Maternal depression: a hidden burden in developing countries. *Ann Med Health Sci Res*. 2014;4(4):463-465.
18. Zubaran C, Schumacher M, Roxo M, Foresti K. Screening tools for postpartum depression: validity and cultural dimensions. *Afr J Psychiatry*. 2010;13(5).
19. Surkan PJ, Kennedy CE, Hurley KM, Black MM. Maternal depression and early childhood growth in developing countries: systematic review and meta-analysis. *Bull World Health Org*. 2011;89(8):608-615.
20. Goodman SH, Rouse MH, Connell AM, Broth MR, Hall CM, Heyward D. Maternal depression and child psychopathology: a meta-analytic review. *Clin Child Fam Psychol Rev*. 2011;14(1):1-27.
21. WHO. Mental health atlas: 2011. Geneva: World Health Organization.
22. Jacob K, Sharan P, Mirza I, et al. Mental health systems in countries: where are we now? *Lancet*. 2007;370(9591):1061-1077.
23. Kliff S. Seven facts about America's mental health care system. *Washington Post*. https://www.washingtonpost.com/news/wonk/wp/2012/12/17/seven-facts-about-americas-mental-health-care-system/?utm_term=.0363e2dc5e14. Published December 17, 2012. Accessed August 16, 2017.
24. United Nations. Sustainable development goals. <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>. Published 2016. Accessed August 16, 2017.
25. Lancet Global Mental Health Group. Scale up services for mental disorders: a call for action. *Lancet*. 2007;370(9594):1241-1252.
26. World Health Organization. Comprehensive mental health action plan 2013-2020. http://www.who.int/mental_health/publications/action_plan/en/. Published 2013. Accessed August 30, 2017.
27. Hoefft TJ, Fortney JC, Patel V, Unützer J. Task-sharing approaches to improve mental health care in rural and other low-resource settings: A systematic review. *J Rural Health*. 2016. <https://doi.org/10.1111/jrh.12229>.
28. World Health Organization. *mhGAP Intervention Guide for Mental, Neurological and Substance Use Disorders in Non-specialized Health Settings: Mental Health Gap Action Programme (mhGAP)*. Geneva, Switzerland: World Health Organization; 2010.
29. Chowdhary N, Sikander S, Atif N, et al. The content and delivery of psychological interventions for perinatal depression by non-specialist health workers in low and middle income countries: a systematic review. *Best Pract Res Clin Obstet Gynaecol*. 2014;28(1):113-133.
30. Lund C, Alem A, Schneider M, et al. Generating evidence to narrow the treatment gap for mental disorders in sub-Saharan Africa: rationale, overview and methods of AFFIRM. *Epidemiol Psychiatr Sci*. 2015;24(03):233-240.
31. Lund C, Tomlinson M, De Silva M, et al. PRIME: a programme to reduce the treatment gap for mental disorders in five low-and middle-income countries. *PLoS Med*. 2012;9(12):e1001359.
32. Bass JK, Bolton PA, Murray LK. Do not forget culture when studying mental health. *Lancet*. 2007;370(9591):918-919.
33. Haroz E, Ritche M, Bass J, et al. How is depression experienced around the world? A systematic review of qualitative literature. *Soc Sci Med*. 2016;183:151-162.
34. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders (DSM-5®)*. Washington, DC: American Psychiatric Association; 2013.
35. Derogatis LR. The Hopkins Symptom Checklist (HSCL): a measure of primary symptom dimensions. *Mod Probl Pharmacopsychiatry*. 1974;7:79-110
36. Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression: development of the 10-item Edinburgh Postnatal Depression Scale. *Br J Psychiatry*. 1987;150(6):782-786.
37. Applied Mental Health Research Group (AMHR). Design, implementation, monitoring and evaluation of cross-cultural trauma related mental health and psychosocial assistance programs: a user's manual for researchers and program implementers. <http://www.jhsph.edu/research/centers-and-institutes/research-to-prevention/dime-manual/DIME-MODULE-1.pdf>. Published 2013. Accessed August 16, 2017.
38. Bernard HR. *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Lanham, MD: Rowman Altamira; 2011.
39. Lasater ME, Beebe M, Blomberg K, et al. Adaptation of a Screening Tool for Perinatal Depression and Anxiety in Community-Based Maternal Health Services in Mali. Chicago, IL: American College of Nurse Midwives Annual Meeting and Exhibition; 2017.