



Topic Brief: Racial Disparities in Maternal Mental Health Outcomes

Date: 7/16/2022

Nomination Number: 1001

Purpose: This document summarizes the information addressing a nomination submitted on June 3, 2022, through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

Issue: The nominators for this topic are concerned about variation in perinatal mental health outcomes by race and racial disparities. They would like a systematic review to inform their development of a guideline pertaining to mental health care for pregnant and postpartum individuals impacted by racism and racial disparities.

Findings: The components of the nomination pertaining to the postpartum periods were addressed by two AHRQ protocols for evidence reviews. For the remainder of the nomination, there was very little and varied evidence, therefore the program will not develop an evidence product.

Background

People who experience racism have a higher risk of poorer pregnancy-related health outcomes. Black women are three times more likely to die from pregnancy-related cause than white women due to factors such as variation in quality healthcare, underlying chronic conditions, structural racism, and implicit bias.¹ Social determinants of health, the economic and social conditions that influence individual and group differences in health status, contribute to the risk of adverse pregnancy outcomes in adolescent mothers, and African American race is one characteristic associated with poor adolescent pregnancy outcomes.²

Pregnancy can be a time of increased risk of mental illness such as depression, anxiety, and self-harm, and low social support is a risk factor.³ Depression is common during and after pregnancy, and the rate of diagnosis at delivery increased by a factor of seven between 2000 and 2015.⁴ Postpartum depression has been measured at an incidence of 12 percent and a prevalence of 17 percent among healthy mothers without prior history of depression.⁵ A study in California found that black women experience higher rates of prenatal depressive symptoms and lower use of postpartum counseling services and medications than white women.⁶ There are currently no guidelines to address racism and racial disparities in mental health outcomes during pregnancy and the postpartum period.

Nomination Summary

During communications with the nominators, we added a question about the experiences of pregnant individuals affected by racism and racial disparities with strategies to improve mental health outcomes during pregnancy that could be addressed with qualitative studies.

Scope

1. What is the effectiveness and comparative effectiveness and harms of strategies to improve mental health outcomes during pregnancy and postpartum in people affected by racism and racial disparities?
2. What are experiences of pregnant individuals affected by racism and racial disparities with strategies to improve mental health outcomes during pregnancy?

Contextual question: Which populations are most impacted by disparities in mental health outcomes due to racism during pregnancy and postpartum?

Table 1. Questions and PICOs (population, intervention, comparator, and outcome)

Questions	1. Strategies to improve mental health outcomes
Population	Pregnant and postpartum individuals of various races/cultures/ethnicity who are affected by racism (i.e., minority groups/non-Caucasian)
Interventions	Strategies: culturally informed care, cultural competency provider education and training, communication strategies, health equity initiatives <ol style="list-style-type: none"> a. Patient-targeted interventions (e.g., improving health literacy, overcoming access issues) b. Provider-targeted interventions (e.g., training to address provider bias) Health system interventions (e.g., increasing the diversity of the healthcare workforce, healthcare system partnership models, varying approaches to community engagement, healthcare system structural and operational investments, investments in cultural change and cultural sensitivity, and interventions to address financial and non-financial barriers to care)
Comparators	Usual care, other strategy
Outcomes	Provider knowledge, utilization of health care resources, patient satisfaction, patient mental health outcomes, suicidality Harms

Table 2. Questions and PICOs (population, intervention, comparator, and outcome)

Questions	2. Experiences of pregnant individuals
Perspective	From the perspective of pregnant individuals affected by racism and racial disparities
Setting	Outpatient pregnancy care
Phenomenon of interest/Problem	Strategies delivered to patients to improve their mental health outcomes
Environment	Within an environment of disadvantage and poorer outcomes associated with race and ethnicity, such as in the United States
Comparison	NA
Timing	From conception to right before birth
Findings	Patient experiences

Abbreviations: NA=not applicable.

Assessment Methods

See Appendix A.

Summary of Literature Findings

Two AHRQ systematic review protocols address most of the nomination, and there is very little evidence to address the remainder of the nomination.

For the postpartum population of Key Question (KQ) 1, there were two AHRQ protocols for evidence reviews that addressed this portion of the nomination. One was a protocol for a systematic review addressing the following key questions: 1) What healthcare delivery strategies affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?; and 2) Does extension of health insurance coverage or improvements in access to healthcare affect postpartum healthcare utilization and improve maternal outcomes within 1 year postpartum?⁷ The other was a protocol for an evidence review addressing the following questions: 1) From a pregnant person’s potential entry into prenatal care, what combinations of risk indicators have the greatest prediction of poor postpartum health outcomes, and to what extent do these patterns of predictors of poor postpartum health outcomes vary by the person’s race/ethnicity?; and 2) Immediately before or immediately after delivery and before release from birthing-related hospitalizations/clinical care, what combinations of risk indicators to the birthing person have the greatest prediction of poor postpartum health outcomes, and to what extent do the patterns of predictors of poor postpartum health outcomes vary by the race/ethnicity of the birthing person?⁸

For the portion of KQ 1 pertaining to a pregnant population, and for KQ 2, there were no recent systematic reviews or protocols for systematic reviews to address them. For this portion of KQ 1, we found three protocols for primary studies, out of a review of the entire yield.⁹⁻¹¹ These each addressed a different program related to improving the experiences of pregnant people who face racism. For KQ 2, we found only three qualifying qualitative studies.¹²⁻¹⁴

Table 3. Literature identified for each Key Question

Question	Systematic reviews (7/2017-7/2022)	Primary studies (7/2019-7/2022)
Question 1: Strategies to improve mental health outcomes	Total: 2 • AHRQ Protocols: 2 ^{7, 8}	Total: 3 • Clinicaltrials.gov: 3 ⁹⁻¹¹
Question 2: Experiences of pregnant individuals	Total: 0	Total: 3 • Qualitative: 3 ¹²⁻¹⁴

Abbreviations: AHRQ=Association for Healthcare Research and Quality.

See Appendix B for detailed assessments of all EPC selection criteria.

Summary of Selection Criteria Assessment

Two evidence reviews by AHRQ addressing the postpartum component of the nomination are currently underway. For the remainder of the nomination, which pertains to the pregnancy period, the evidence is very limited and varied.

Please see Appendix B for detailed assessments of individual EPC Program selection criteria.

References

1. Working together to reduce black maternal mortality. Centers for Disease Control and Prevention. doi: <https://www.cdc.gov/healthequity/features/maternal-mortality/index.html>.
2. Amjad S, MacDonald I, Chambers T, et al. Social determinants of health and adverse maternal and birth outcomes in adolescent pregnancies: A systematic review and meta-analysis. *Paediatr Perinat Epidemiol*. 2019 Jan;33(1):88-99. doi: <https://doi.org/10.1111/ppe.12529>. PMID: 30516287.
3. Bedaso A, Adams, J, Peng, W, Sibbritt, D. The relationship between social support and mental health problems during pregnancy: a systematic review and meta-analysis. *Reproductive Health*, 2021, 18, (1), pp. 162. 2021. doi: <https://opus.lib.uts.edu.au/handle/10453/151004>.
4. Depression during and after pregnancy. Centers for Disease Control and Prevention. doi: <https://www.cdc.gov/reproductivehealth/features/maternal-depression/index.html>.
5. Shorey S, Chee CYI, Ng ED, et al. Prevalence and incidence of postpartum depression among healthy mothers: A systematic review and meta-analysis. *J Psychiatr Res*. 2018 Sep;104:235-48. doi: <https://doi.org/10.1016/j.jpsychires.2018.08.001>. PMID: 30114665.
6. Declercq E, Feinberg E, Belanoff C. Racial inequities in the course of treating perinatal mental health challenges: Results from listening to mothers in California. *Birth*. 2022 Mar;49(1):132-40. doi: <https://doi.org/10.1111/birt.12584>. PMID: 34459012.
7. Postpartum care for women up to one year after pregnancy. doi: <https://effectivehealthcare.ahrq.gov/products/postpartum-care-one-year/protocol>.
8. Maternal morbidity and mortality. doi: <https://effectivehealthcare.ahrq.gov/products/maternal-morbidity-mortality/protocol>.
9. Well-Mama Community Doula Navigator Study. doi: <https://clinicaltrials.gov/ct2/results?term=mental+health+and+disparities&recrs=abdf&cond=Pre+gnancy>.
10. Today Not Tomorrow Pregnancy and Infant Support Program (TNT- PISP). doi: <https://clinicaltrials.gov/ct2/results?term=mental+health+and+disparities&recrs=abdf&cond=Pre+gnancy>.
11. Henderson M, Wittkowski A, McIntosh E, et al. Trial of healthy relationship initiatives for the very early years (THRIVE), evaluating Enhanced Triple P for Baby and Mellow Bumps additional social and care needs during pregnancy and their infants who are at higher risk of maltreatment: study protocol for a randomised controlled trial. *Trials*. 2019 2019;20(1):499. doi: <https://doi.org/10.1186/s13063-019-3571-5>.
12. Markey K, Noonan M, Doody O, et al. Fostering Collective Approaches in Supporting Perinatal Mental Healthcare Access for Migrant Women: A Participatory Health Research Study. *Int. J. Environ. Res. Public Health*. 2022 2022;19(3). doi: <https://doi.org/10.3390/ijerph19031124>.
13. Pilav S, De Backer K, Easter A, et al. A qualitative study of minority ethnic women's experiences of access to and engagement with perinatal mental health care. *BMC Pregnancy Childbirth*. 2022 2022;22(1):421. doi: <https://doi.org/10.1186/s12884-022-04698-9>.
14. Willey SM, Blackmore RP, Gibson-Helm ME, et al. "If you don't ask ... you don't tell": Refugee women's perspectives on perinatal mental health screening. *Women Birth*. 2020 2020;33(5):e429-e37. doi: <https://doi.org/10.1016/j.wombi.2019.10.003>.
15. Mental health in the U.S. Centers for Disease Control and Prevention. doi: <https://www.cdc.gov/workplacehealthpromotion/tools-resources/workplace-health/infographics/mental-health-united-states.html>.

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Appendix A: Methods

We assessed nomination for priority for a systematic review or other AHRQ Effective Health Care report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one. See Appendix B for detailed description of the criteria.

Appropriateness and Importance

We assessed the nomination for appropriateness and importance.

Desirability of New Review/Absence of Duplication

We searched for high-quality, completed or in-process evidence reviews published in the last three years July 1, 2022, on the questions of the nomination from these sources:

- AHRQ: Evidence reports and technology assessments
 - AHRQ Evidence Reports <https://www.ahrq.gov/research/findings/evidence-based-reports/index.html>
 - EHC Program <https://effectivehealthcare.ahrq.gov/>
 - US Preventive Services Task Force <https://www.uspreventiveservicestaskforce.org/>
 - AHRQ Technology Assessment Program <https://www.ahrq.gov/research/findings/ta/index.html>
- US Department of Veterans Affairs Products publications
 - Evidence Synthesis Program <https://www.hsrd.research.va.gov/publications/esp/>
 - VA/Department of Defense Evidence-Based Clinical Practice Guideline Program <https://www.healthquality.va.gov/>
- Cochrane Systematic Reviews <https://www.cochranelibrary.com/>
- PROSPERO Database (international prospective register of systematic reviews and protocols) <http://www.crd.york.ac.uk/prospéro/>
- PubMed <https://www.ncbi.nlm.nih.gov/pubmed/>
- Joanna Briggs Institute <http://joannabriggs.org/>
- Epistemonikos https://www.epistemonikos.org/en/advanced_search
- ECRI Institute <https://www.ecri.org/>

Impact of a New Evidence Review

The impact of a new evidence review was qualitatively assessed by analyzing the current standard of care, the existence of potential knowledge gaps, and practice variation. We considered whether it was possible for this review to influence the current state of practice through various dissemination pathways (practice recommendation, clinical guidelines, etc.).

Feasibility of New Evidence Review

We conducted a limited literature search in PubMed and PsycInfo for the last five years July 1, 2017-July 1, 2022. We reviewed all studies identified titles and abstracts for inclusion. We classified identified studies by question and study design to estimate the size and scope of a potential evidence review.

Search strategy

Ovid MEDLINE ALL <1946 to June 30, 2022>

Date searched: July 1, 2022

1 pregnancy/ or gravidity/ or parity/ or pregnancy in adolescence/ or pregnancy, high-risk/ or exp pregnancy maintenance/ or exp pregnancy, multiple/ or pregnancy, unplanned/ or pregnancy, unwanted/ or prenatal care/ (963334)

2 (antenatal or expectant or intrapartum or perinatal or peripartum or pregnant or pregnanc* or prenatal or primipara\$1 or multipara\$1 or nullipara\$1 or gravid* or nulligravid* or primigravid* or multigravid* or trimester).ti,ab,kf. (719838)

3 or/1-2 (1151446)

4 Healthcare Disparities/ or Health Status Disparities/ or Race Factors/ or Cultural Competency/ (43576)

5 (bias\$2 or cultural or determinant* or discriminat* or disparit* or equal* or unequal* or unequal* or inequit* or microaggress* or prejudic* or structural or underserved or vulnerable or racism or racist or racial or ethnic or minority or minorities or Black\$1 or African-American\$1 or Chicana\$1 or Chinese-American\$1 or Filipin* or Hispanic\$1 or indigenous or Mexican-American\$1 or Native American\$1 or Asian-American\$1 or Latin-American\$1 or Latina\$1).ti,kf. (555170)

6 4 or 5 (574019)

7 exp Anxiety Disorders/ or exp Behavioral Symptoms/ or Depression/ or Depressive Disorder/ or Depressive Disorder, Major/ or Dysthymic Disorder/ or Mental Health/ or Mood Disorders/ or exp Suicide/ (613461)

8 (anxiety or depressive or depression or dysthym* or (self adj (harm or injur*)) or (mood adj disorder\$1) or (mental adj2 (health* or illness\$2)) or suicid*).ti,kf.

10 and/3,6,9 (1141)

11 10 not ((Animals/ not Humans/) or postpartum.ti.) (991)

12 limit 11 to english language (982)

13 limit 12 to yr="2019 -Current" (317)

14 (meta-analysis or "systematic review").pt. or (meta-anal* or metaanal* or ((evidence or scoping or systematic or umbrella) adj3 (review or synthesis))).ti,kf. (362604)

15 and/13-14 (20)

16 limit 12 to yr="2017 -Current" (440)

17 (controlled clinical trial or pragmatic trial or randomized controlled trial).pt. or (control\$3 or random* or comparative or trial).ti. (1439296)

18 and/16-17 (19)

19 exp cohort studies/ or exp epidemiologic studies/ or exp evaluation studies as topic/ (3975325)

20 ((control and (group* or study)) or program or survey* or cohort or comparative stud* or evaluation studies or follow-up*).mp. (6896983)

21 or/19-20 (8371970)

22 and/16,21 (257)

EBM Reviews - Cochrane Central Register of Controlled Trials

Date searched: July 1, 2022

1 pregnancy/ or gravidity/ or parity/ or pregnancy in adolescence/ or pregnancy, high-risk/ or exp pregnancy maintenance/ or exp pregnancy, multiple/ or pregnancy, unplanned/ or pregnancy, unwanted/ or prenatal care/ (23565)

2 (antenatal or expectant or intrapartum or perinatal or peripartum or pregnant or pregnanc* or prenatal or primipara\$1 or multipara\$1 or nullipara\$1 or gravid* or nulligravid* or primigravid* or multigravid* or trimester).ti,ab. (69022)

3 or/1-2 (76793)

4 Healthcare Disparities/ or Health Status Disparities/ or Race Factors/ or Cultural Competency/ (572)

5 (bias\$2 or cultural or determinant* or discriminat* or disparit* or equal* or unequal* or unequal* or inequit* or microaggress* or prejudic* or structural or underserved or vulnerable or racism or racist or racial or ethnic or minority or minorities or Black\$1 or African-American\$1 or Chicana\$1 or Chinese-American\$1 or Filipin* or Hispanic\$1 or indigenous or Mexican-

American\$1 or Native American\$1 or Asian-American\$1 or Latin-American\$1 or Latina\$1).ti.
(17520)
6 4 or 5 (17805)
7 exp Anxiety Disorders/ or exp Behavioral Symptoms/ or Depression/ or Depressive Disorder/
or Depressive Disorder, Major/ or Dysthymic Disorder/ or Mental Health/ or Mood Disorders/ or
exp Suicid (40548)
8 (anxiety or depressive or depression or dysthym* or (self adj (harm or injur*)) or (mood adj
disorder\$1) or (mental adj2 (health* or illness\$2)) or suicid*).ti. (50190)
9 or/7-8 (73026)
10 and/3,6,9 (60)
11 limit 10 to yr="2017 -Current" (20)

APA PsycInfo <1806 to June Week 3 2022>

Date searched: July 1, 2022

1 pregnancy/ or adolescent pregnancy/ or primipara/ or exp perinatal period/ or exp prenatal care/
(32169)
2 (antenatal or expectant or intrapartum or perinatal or peripartum or pregnant or pregnanc* or
prenatal or primipara\$1 or multipara\$1 or nullipara\$1 or gravid* or nulligravid* or primigravid*
or multigravid* or trimester).ti,ab. (71243)
3 or/1-2 (73945)
4health disparities/ or equity/ or cross cultural differences/ or racial disparities/ (65784)
5 (bias\$2 or cultural or determinant* or discriminat* or disparit* or equal* or inequal* or
unequal* or inequit* or microaggress* or prejudic* or structural or underserved or vulnerable or
racism or racist or racial or ethnic or minority or minorities or Black\$1 or African-American\$1
or Chicana\$1 or Chinese-American\$1 or Filipin* or Hispanic\$1 or indigenous or Mexican-
American\$1 or Native American\$1 or Asian-American\$1 or Latin-American\$1 or Latina\$1).ti.
(233800)
6 4 or 5 (274547)
7 exp Anxiety Disorders/ or exp Behavioral Symptoms/ or Depression/ or Depressive Disorder/
or Depressive Disorder, Major/ or Dysthymic Disorder/ or Mental Health/ or Mood Disorders/ or
exp Suicide/ (209797)
8 (anxiety or depressive or depression or dysthym* or (self adj (harm or injur*)) or (mood adj
disorder\$1) or (mental adj2 (health* or illness\$2)) or suicid*).ti. (282491)
9 or/7-8 (384541)
10 and/3,6,9 (397)
11 limit 10 to english language (370)
12 limit 11 to yr="2019 -Current" (85)
13 limit 12 to ("0800 literature review" or "0830 systematic review" or 1200 meta analysis or
1300 metasynthesis) (14)
14 limit 11 to yr="2017 -Current" (125)
15 limit 14 to "0300 clinical trial" (3)
16 14 not (13 or 15) (108)

EPISTEMONIKOS

Date searched: Jul 1, 2022

title:(antenatal OR expectant OR intrapartum OR perinatal OR peripartum OR pregnant OR
pregnanc* OR prenatal OR primipara\$1 OR multipara\$1 OR nullipara\$1 OR gravid* OR
nulligravid* OR primigravid* OR multigravid* OR trimester)) AND title:((bias* OR cultural
OR determinant* OR discriminat* OR disparit* OR equal* OR inequal* OR unequal* OR
inequit* OR microaggress* OR prejudic* OR structural OR underserved OR vulnerable OR

racism OR racist OR racial OR ethnic OR minORity OR minorities OR Black* OR African-American* OR Chicana* OR Chinese-American* OR Filipin* OR Hispanic* OR indigenous OR Mexican-American* OR Native American* OR Asian-American* OR Latin-American* OR Latina*) AND title:(anxiety OR depress* OR dysthym* OR self* OR mood OR mental health OR mental illness OR suicid*) (16)

PROSPERO

Date searched: July 1, 2022

((pregnan* OR prenatal OR antenatal) AND (bias* OR cultural OR determinant* OR discriminat* OR disparit* OR equal* OR inequal* OR unequal* OR inequit* OR microaggress* OR prejudic* OR structural OR underserved OR vulnerable OR racism OR racist OR racial OR ethnic OR minORity OR minorities OR Black OR Blacks OR African-American* OR Chicana* OR Chinese-American* OR Filipin* OR Hispanic* OR indigenous OR Mexican-American* OR Native American* OR Asian-American* OR Latin-American* OR Latina*)):TI AND (Systematic Review OR Meta-Analysis OR IPD OR PMA OR Network meta-analysis OR Review of reviews):RT WHERE CD FROM 01/07/2019 TO 01/07/2022

Appendix B. Selection Criteria Assessment

Selection Criteria	Assessment
1. Appropriateness	
1a. Does the nomination represent a health care drug, intervention, device, technology, or health care system/setting available (or soon to be available) in the United States?	Yes.
1b. Is the nomination a request for an evidence report?	Yes.
1c. Is the focus on effectiveness or comparative effectiveness?	Yes.
1d. Is the nomination focus supported by a logic model or biologic plausibility? Is it consistent or coherent with what is known about the topic?	Yes.
2. Importance	
2a. Represents a significant disease burden; large proportion of the population	Postpartum depression has been measured at a prevalence of 12% among healthy mothers without prior history of depression. ⁵ Black women experience higher rates of prenatal depressive symptoms and lower use of postpartum counseling services and medications than white women. ⁶
2b. Is of high public interest; affects health care decision making, outcomes, or costs for a large proportion of the United States population or for a vulnerable population	Yes. Pregnant and postpartum people who experience racism and racial disparities make up a vulnerable population.
2c. Incorporates issues around both clinical benefits and potential clinical harms	Yes.
2d. Represents high costs due to common use, high unit costs, or high associated costs to consumers, to patients, to health care systems, or to payers	Yes. In 2014, \$186 billion was spent in the United States on mental health care. ¹⁵
3. Desirability of a New Evidence Review/Absence of Duplication	
3. A recent high-quality systematic review or other evidence review is not available on this topic	No. Two AHRQ protocols for evidence reviews cover the portion of the nomination pertaining to the postpartum period, but do not cover the pregnancy period. ^{7,8}
4. Impact of a New Evidence Review	
4a. Is the standard of care unclear (guidelines not available or guidelines inconsistent, indicating an information gap that may be addressed by a new evidence review)?	There are not currently guidelines addressing the topic.
4b. Is there practice variation (guideline inconsistent with current practice, indicating a potential implementation gap and not best addressed by a new evidence review)?	There are no standard interventions for improving mental health outcomes for pregnant or postpartum people who experience racism or racial disparities.
5. Primary Research	
5. Effectively utilizes existing research and knowledge by considering: - Adequacy (type and volume) of research for conducting a systematic review - Newly available evidence (particularly for updates or new technologies)	We found three studies addressing the remainder of KQ 1 not addressed by the AHRQ protocols for evidence reviews, ⁹⁻¹¹ and three qualitative studies addressing KQ 1. ¹²⁻¹⁴ A new systematic review would be limited in size.

Abbreviations: ACOG= American College of Obstetricians and Gynecologists; AHRQ=Agency for Healthcare Research and Quality; KQ=key question.