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EVIDENCE SUMMARY
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What works to improve maternal mental health outcomes for newcomers?

Moderate evidence suggests that targeted clinic staff training and engaging new mothers during clinic visits are associated with increasing postpartum depression screening rates, education, and referrals.

- Two studies focused on training clinic staff on the importance of postpartum depression screening, designing ways to make screening more manageable, and creating resource lists for providers to reference. Providers reported satisfaction with the systems, and screening and referral rates increased, but barriers still prevented many patients (who were mostly refugees) from receiving screening.
- A clinic-based program that included group lectures, individual patient education, and staff training saw improved depression symptoms, awareness, and social support scores.

Moderate evidence suggests benefits of peer-based mentoring programs include reducing depression symptoms and increasing social support among immigrant women.

- Two studies of one-on-one support programs utilizing volunteers who were mothers from the same or similar communities showed very high rates of program satisfaction, decreases in symptom screening scores, and increases in service referrals.

Virtual formats can effectively reach more immigrant new mothers while maintaining high levels of program satisfaction, based on available strong evidence.

- A systematic review focusing on technology-based mental health interventions for Latina and/or African American women found five of the six included studies reported improved mental health symptoms, and all the studies reported high satisfaction rates with easily accessible and helpful materials.
- One suggestive study adapted a highly regarded social support program into a virtual format for Latina immigrant mothers. Results showed higher levels of attendance compared to similar in-person studies, as well as reductions in depressive symptoms

Purpose of this summary

This document summarizes the state of available evidence on the impacts of interventions targeting the reduction of adverse mental health symptoms in expectant or new mothers. This summary includes interventions that are either directly impacting the mothers or aiming to increase rates of screening by medical providers.

What is meant by "maternal mental health"?

This evidence summary uses "maternal mental health" to refer to the various mental health conditions that occur in the perinatal period. These include postpartum depression (PPD), postpartum anxiety, prenatal anxiety, and prenatal depression, among others.

What is meant by "perinatal"?

Perinatal is the period of time from the beginning of pregnancy to one year after birth (postpartum).

What is the "Edinburgh Postnatal Depression Scale"?

The Edinburgh Postnatal Depression Scale (EPDS) is a widely used and thoroughly tested measure to identify people at risk of or suffering from postpartum depression. It has been translated and validated in various languages. It consists of 10 questions and has scores ranging from zero to 30, with scores of more than nine indicating referral or follow-up is needed.[1]

What does the evidence show?

Moderate evidence suggests that targeted clinic staff training and engaging new mothers during clinic visits are associated with increasing postpartum depression screening rates, education, and referrals.

- Alfayumi-Zeadna et al. (2022) conducted a non-randomized controlled trial of a **training, awareness, and social-support-focused intervention aimed at reducing postpartum depression (PPD)** in low-income Bedouin women living in southern Israel. Two clinics were used: one as the control group (163 women) and one as the intervention group (169 women). The researchers used information gathered through previous focus groups with Bedouin women to identify barriers to PPD treatment. **Staff of the intervention clinic received tailored training** that covered "information on PPD prevalence, specific risk factors for Bedouin women, barriers to prevention and treatment, guidance on supporting Bedouin women, and counseling and treatment services for women with PPD symptoms" (p. 1692). **The intervention program included both individual and group sessions** for Bedouin clinic patients. The individual sessions occurred during clinic visits and allowed medical staff to tailor information about PPD, available services, and how to seek social support to the individual patients. Group sessions consisted of lectures delivered by nurses, gynecologists, and psychologists on topics such as social support, perinatal depression, and follow-up tests in the perinatal period. Women who completed the intervention attended at least three lectures. All participants completed two interviews, one before the intervention (pretest, 26–38 weeks pregnant) and one following (posttest, 2–4 months postpartum). Results showed no difference between the intervention and control groups in the average measure scores at pretest, but **the intervention group had lower EPDS scores (5.8 vs. 7.2) and higher PPD awareness (120 reporting high level vs. 44) and social support (113 at high level vs. 74) scores at posttest**. Additionally, the **intervention participants who reported high levels of PPD awareness and social support at posttest had a greater reduction in EPDS scores.** Women in

[1] Illinois Department of Healthcare and Family Services. (n.d.). *Edinburgh Postnatal Depression Scale*. https://hfs.illinois.gov/medicalproviders/maternalandchildhealth/edinburgh.html

the intervention group who reported pregnancy complications and a history of PPD were more likely to show positive changes, although this was a small percentage of the overall sample (9.6%).

- Robidoux et al. (2023) analyzed the effectiveness of a **quality improvement intervention targeting PPD screening rates** among Latina women in South Carolina. The researchers provided enhanced training to community health workers, providers, and health care staff of two patient-centered medical homes that serve women and children aged zero to three, 54% of whom identify as Latina. Provider focus groups at the clinic sites identified current barriers to screening Latina mothers for PPD during well-child checks occurring at one, two, four, and six months old, as recommended by the American Academy of Pediatrics. These barriers were identified as lack of insurance, stigma, language, time constraints, lack of clear referral process, and lack of available community resources. Researchers used the results to develop training for clinic staff, which included information on when and how to administer and score the EPDS. The new screening process also incorporated an algorithm that could assist clinic staff with identifying potential treatment options based on patient answers. The algorithm included a crisis plan for patients who reported suicidal ideation during screening. Researchers analyzed data from 1,014 well-child visits from the six months before implementation and 832 well-child visits post-intervention. **The percentage of eligible mothers who received screening during well-child visits increased from 45% to 66%. The percentage of patients who received referrals after screening positive for symptoms of PPD increased from 9% to 22%.** For mothers who screened positive but were not referred, providers recommended continued monitoring, provided PPD resources, or made notes to follow up at the next visit. South Carolina began the Medicaid Quality Improvement initiative around the same time, targeting increased PPD screening at one month or earlier, two months, and four months, which may have impacted results from this study. Although this study did not report on how this program impacted rates of perinatal mental health conditions for refugee women, it is important to recognize that feasible screening measures will allow providers to identify and treat more women.

- Willey et al. (2020) evaluated the adoption of a new **perinatal mental health screening protocol** at a dedicated refugee prenatal clinic in Melbourne, Australia. The new protocol involved utilizing both **the EPDS and the Monash Health (MH) psychosocial questionnaire**, a 19-item form that asks questions about previous and current experiences with pregnancy, birth, breastfeeding, mental health, abuse, social support, and financial concerns. The program also implemented new referral pathways and a coordinated maternity services approach. **Midwives reported that knowing these new options were available made them more willing to discuss mental health with their patients**. Results showed that the capacity to conduct screening was still complicated by the time it takes to complete forms through a language barrier, especially when midwives needed to clarify elements due to cross-cultural misunderstandings. A survey of health professionals indicated that there was still a lack of sufficient training, skills, and resources to continue to implement and support the program. However, the health professionals also reported that they felt they were engaging women in conversations that enabled them to share their concerns. **They showed enthusiasm for how the program improved their ability to better provide mental health care to refugee women.**

Moderate evidence suggests benefits of peer-based mentoring programs include reducing depression symptoms and increasing social support .

- Lutenbacher et al. (2018) conducted a randomized clinical trial of a **peer mentor program**, Maternal Infant Health Outreach Worker (MIHOW), with Hispanic women in Tennessee. A total of 178 women completed the study, 91 in the intervention group and 87 in the control. The intervention group received **six months of services**, which consisted of **monthly home visits** from an MIHOW interventionist from the local Hispanic community and **occasional group gatherings**. Home visits consisted of listening to the mother's concerns, educating about typical milestones

during their current stage of pregnancy or the age of their child, breastfeeding, and referrals to needed medical or social services. The control group received printed education materials on maternal and child well-being. Participants were mostly of Mexican heritage, single, had less than a high school education, and had an annual household income of less than $15,000. **Women in the intervention group reported a greater decrease in EPDS scores** and "lower levels of parenting stress and higher levels of available social and emotional help" (p. S99). Additionally, **women in the intervention group received more referrals, followed through with connecting to resources, and received more new services.**

- Cwikel, Segal-Engelchin, and Niego (2018) evaluated the Mom to Mom program (M2M) in an area of Israel with a high proportion of immigrants (30.7%), mostly from the former Soviet Union and Ethiopia. M2M **matches new moms with a trained volunteer mom**, many of whom were immigrants themselves, who offer "emotional, information and role-modeling support" (p. 518). The total sample consisted of 440 women enrolled between 2004 and 2015, but researchers also conducted a telephone survey with a random sample of 51 mothers and a telephone interview with mothers who had a positive EPDS score (≥10) after a year in the program. Overall satisfaction with the program was high: **86.5% of mothers were glad they joined, and 96% would recommend the program.** Most participants felt they were quite attached to their volunteer and found it difficult to leave at the end of the program. Follow-up with participants with positive EPDS scores showed that **79.2% reported doing well at work and home after one year in the program.** Participants who joined M2M reported higher rates of PPD symptoms than other Israeli studies, indicating that M2M may be a good fit for women who are not receiving services through other programs or who may not feel comfortable with other intervention types.

Virtual formats can effectively reach more new mothers while maintaining high levels of program satisfaction, based on available strong evidence.

- Lara-Cinisomo et al. (2021) conducted a systematic review aimed at synthesizing studies focused on the **prevention and/or treatment of perinatal depression and anxiety** in Latina/Hispanic and/or African American/Black women **using technology-based tools** (i.e., Internet-based, telemedicine, text-messaging). Six articles met all inclusion criteria and were reviewed. Three studies were randomized-controlled trials, two were observational, and the last was quasi-experimental. Half of the studies were Internet-based interventions (web-based classes and Facebook groups), and the other half used phone-based interventions (text messaging and apps). **All three of the phone-based and two of the Internet-based interventions reported improved mental health symptoms in their samples.** All six studies measured satisfaction with the intervention and/or mode of technology in some capacity. There were **high satisfaction rates, greater than 80%, among all the interventions, with many participants finding the material easy to access and helpful.** Only one included study discussed how their intervention was adapted for specific contexts. However, **there was an association between the level of customization of intervention delivery and the level of satisfaction reported**. The app-based intervention reported increases in comfort in sharing their feelings and confidence in managing health.

- Platt et al. (2023) evaluated a **virtual adaptation of the Mothers and Babies (MB) programs** for Latina immigrant mothers in the United States. MB is highly regarded as one of the most effective interventions for preventing PPD. It combines elements of cognitive behavioral therapy and attachment theory and is available in several formats. The COVID-19 pandemic inspired these researchers to adapt the group format into an enhanced virtual group, MB-Virtual Group (MBVG). This run of MBVG included 49 Spanish-speaking mothers, 80% of whom were originally from the Northern Triangle of Central America (El Salvador, Guatemala, and Honduras) or Mexico. Fifty-nine percent of participants were in the perinatal period. The original MB group format consists of six 90-minute in-person sessions. MBVG modified these into eleven 60- to 75-minute **Zoom**

group sessions and added a 15-minute **Q&A session with a pediatrician** at the end of each session. The researchers also "offered assistance with accessing food-related resources" and communicated via WhatsApp with reminders about meetings and assignments (p. 467). Almost 80% of participants attended more than half of the offered sessions, an increase compared to studies on in-person MB with Latinas. The evaluation results showed a **reduction in average depressive symptoms and parenting distress scores and an increase in reported self-efficacy in emotional management.** Reported benefits of the virtual format included ease of attendance, reduction of barriers to participation, and comfort in sharing through the ability to turn off cameras. Drawbacks to the virtual platform included lack of digital literacy, lack of social cues, and lack of ability to be removed from at-home stressors. Participants highly valued the ability to ask questions of a pediatrician and appreciated the group messaging aspect for its ability to build community and provide reminders.

What are the implications for practice and research?

"Many women who seek professional help, despite it being effective, are dissatisfied with treatment options because of concerns about breastfeeding (e.g., medication use) and barriers to participation."

(Lara-Cinisomo et al., 2021)

More research looking into increasing screening and prevention of maternal mental health conditions is needed.

- Three studies contained components targeting screening in clinical settings, but none specifically discussed interventions with a preventative approach.
- Interventions that did target screening and referral rates were more focused on training clinic staff than on reducing other barriers to screening and referrals.

Interventions that target building social connections appear to be particularly well-suited for this population.

- Three individual interventions, as well as several included in a systematic review, had elements that aimed to build participants' social connections, whether through one-on-one peer mentoring or group sessions.
- All these studies reported positive outcomes in participants regarding their symptoms or overall well-being. High satisfaction rates were consistently present for interventions that measured it.

There is a lack of evidence on refugee mothers specifically.

- Although many of the included studies looked at immigrant populations, refugees were only specifically targeted in one intervention. New mothers who are refugees may face barriers that are not present in other immigrant groups.

How did we identify evidence for this summary?

Included Studies

The Switchboard evidence database includes the following types of studies, categorized by the strength of their evidence:

Strong Evidence

Meta-analyses: systematic analyses of sets of existing evaluations of similar programs.

Systematic reviews: syntheses of the best available evidence on specific research questions that use narrative synthesis focused on evaluations of the impacts of at least one specific policy, program, or intervention.

Moderate Evidence

Published individual **impact evaluations** using randomized controlled trials (RCTs/C-RCTs), natural experiments, quasi-experimental techniques such as difference-in-difference (DID), instrumental variables (IV), regression discontinuity design (RDD), and propensity score matching (PSM) or other forms of synthetic matching, as well as fixed effects techniques with interaction terms.

Suggestive Evidence

Published studies using methods including non-systematic literature review, uncontrolled before and after tests, post-test only, interrupted time series (ITS), cross-sectional regressions, longitudinal panels, cohort and case-controls, and purely qualitative techniques.

Excluded Studies

The Switchboard evidence database excludes case studies, unpublished suggestive research, opinion papers, descriptive studies, and unpublished literature reviews.

Search Protocol

Studies included in the database focused on high-income or upper middle-income countries, including but not limited to the United States. Studies included must have been published since 2012. To identify evidence, we searched the following websites and databases using the following population, methodology, and target outcome terms:

Websites and Databases	Population Terms	Methodology Terms	Target Outcome Terms
EbscoHost	refugee	evaluation	"maternal mental

Google Scholar	OR immigrant OR “unaccompanied minor” OR asylee OR “temporary protected status” OR “victims of traffick*” OR “traffick* victims” OR T-Visa OR U-Visa OR Cuban OR Haitian OR Amerasian	OR impact OR program OR intervention OR policy OR project OR train* OR therapy OR treatment OR counseling OR workshop OR review OR meta-analysis OR synthesis	health" OR "postpartum mental health" OR "postpartum depression" OR "postpartum anxiety" OR "postpartum rage" OR "postpartum psychosis" OR "antenatal mental health" OR "perinatal mental health" OR "peripartum mental health" OR "postnatal mental health" OR "postpartum mood disorders" OR "maternal mood disorders" OR "pregnancy mental health" OR "postnatal depression" OR "postpartum mental health"

For databases or websites that permitted only basic searches, free-text terms and limited term combinations were selected out of the lists above, and all resultant studies were reviewed for relevance. Conversely, for databases or websites with advanced search capability, we made use of relevant available filters. All search terms were searched in the title and abstract fields only in order to exclude studies that made only passing mention of the topic under consideration.

After initial screening, Switchboard evidence mapping is prioritized as follows: First priority is given to meta-analyses and systematic reviews, followed by individual impact evaluations when no meta-analyses or systematic reviews are available. Evaluations that are rated as impact evidence are considered before those rated as suggestive, with the latter only being included for outcomes where no evidence is available from the former.

Studies Included

Database and website searching identified 320 studies. After removing duplicates, 307 studies were then screened. Of these, 284 were determined to be irrelevant to this search. Twenty-three full-text articles were assessed for eligibility. Sixteen full-text articles were excluded due to not meeting one or more of the inclusion criteria pertaining to resettlement country, year of publication, population, methodology, or target problem. Seven studies were eligible for inclusion. They are listed below, with hyperlinks to the abstracts or full text (when available).

Meta-Analyses and Systematic Reviews

Lara-Cinisomo, S., Ramirez Olarte, A., Rosales, M., & Barrera, A. Z. (2021). A systematic review of technology-based prevention and treatment interventions for perinatal depression and anxiety in Latina and African American women. *Maternal and Child Health Journal, 25*, 268–281. Full Text.

Impact Evaluations

Alfayumi-Zeadna, S., Zeadna, A., Azbarga, Z., Salman, L., Froimovici, M., Alkatnany, A., Grotto, I., & Daoud, N. (2022). A non-randomized controlled trial for reducing postpartum depression in low-income minority women at community-based women's health clinics. *Maternal and Child Health Journal, 26*, 1689–1700. Abstract.

Lutenbacher, M., Elkins, T., Dietrich, M. S., & Riggs, A. (2018). The efficacy of using peer mentors to improve maternal and infant health outcomes in Hispanic families: Findings from a randomized clinical trial. *Maternal and Child Health Journal, 22*(Suppl 1), S92–S104. Full Text.

Suggestive Studies

Cwikel, J., Segal-Engelchin, S., & Niego, L. (2017). Addressing the needs of new mothers in a multi-cultural setting: An evaluation of home visiting support for new mothers – Mom to Mom (Negev). *Psychology, Health & Medicine, 23*(5), 517–524. Abstract.

Platt, R., Martin, C. P., Perry, O., Cooper, L., Tandon, D., Richman, R., Bettencourt, A. F., & Polk, S. (2023). A mixed-methods evaluation of virtually delivered group-based Mothers and Babies for Latina immigrant mothers. *Women's Health Issues, 33*(5), 465–473. Full Text.

Robidoux, H., Williams, A., Cormack, C., & Johnson, E. (2023). Maternal postpartum depression screening and referral in a Latinx immigrant population: A quality improvement study. *Journal of Immigrant and Minority Health, 25,* 1050–1058. Abstract.

Willey, S. M., Gibson-Helm, M. E., Finch, T. L., East, C. E., Khan, N. N., Boyd, L. M., & Boyle, J. A. (2020). Implementing innovative evidence-based perinatal mental health screening for women of refugee background. *Women and Birth, 33*, e245–e255. Abstract.

Supplemental Resources

The following studies did not meet the criteria to be included in the evidence summary but may provide additional context, guidance, or understanding of the topic.

Almeida, L. M., Moutinho, A. R., Siciliano, F., Leite, J., & Caldas, J. P. (2023). Maternal mental health in refugees and migrants: A comprehensive systematic review. *Journal of International Migration and*

Integration. Abstract.

Dennis, C., Merry, L., & Gagnon, A. J. (2017). Postpartum depression risk factors among recent refugee, asylum-seeking, non-refugee immigrant, and Canadian-born women: Results from a prospective cohort study. *Social Psychiatry & Psychiatric Epidemiology, 52*, 411–422. Abstract.

Evagoru, O., Arvaniti, A., & Samakouri, M. (2016). Cross-cultural approach of postpartum depression: Manifestation, practices applied, risk factors, and therapeutic interventions. *Psychiatric Quarterly, 87*, 129–154. Abstract.

Ganann, R., Sword, W., Newbold, K. B., Thabane, L., Armour, L., & Kint, B. (2020). Influences on mental health and health services accessibility in immigrant women with post-partum depression: An interpretive descriptive study. *Psychiatric and Mental Health Nursing, 27*(1), 87–96. Abstract.

Guilfoyle, A. M., La Rosa, A., Botsis, S., & Butler-O'Halloran, B. (2014). Perinatal mental health, ecological systems, and social support: Refugee women and facilitated playgroup. *The International Journal of Health, Wellness, and Society, 3*(4), 52–66. Abstract.

Nwoke, C. N., Awosoga, O. A., McDonald, S., Bonifacio, G. T., & Leung, B. M. Y. (2023). African immigrant mothers' views of perinatal mental health and acceptability of perinatal mental health screening: Quantitative cross-sectional survey study. *JMIR Formative Research, 7*(2023), 1–17. Full Text.

Playfair, R. L. R., Salami, B., & Hegadoren, K. (2017). Detecting antepartum and postpartum depression and anxiety symptoms and disorders in immigrant women: A scoping review of the literature. *International Journal of Mental Health Nursing, 26,* 314–325. Abstract.

Salameh, T. N., Nyakeriga, D. B., & Hall, L. A. (2023). Telehealth care for perinatal depression in immigrant and refugee women: A scoping review. *Issues in Mental Health Nursing, 44*(12), 1216–1225. Abstract.

Skoog, M. (2022). *Screening immigrant mothers for postpartum depression. Development and feasibility of an educational intervention for nurses in the child health services.* [Doctoral Thesis (compilation), Department of Health Sciences]. Lund University, Faculty of Medicine. Full Text.