

Effectiveness and cost-effectiveness of models of maternity care among women from migrant and refugee backgrounds in high-income countries: A systematic review

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Introduction

- Women from migrant and refugee backgrounds often face challenges in achieving favourable obstetric outcomes and accessing healthcare services(1).
- They are at higher risk of experiencing adverse childbirth outcomes, including mortality, than their counterparts from the host population.
- Different models of care may be appropriate for various groups of women during their perinatal period, depending on their risk level, location, and accessibility of healthcare practitioners and facilities(2).

Aim

- To synthesize evidence on the effectiveness and cost-effectiveness of maternity care models among women from migrant and refugee backgrounds living in high-income countries.

Methods

Search strategy

- Major databases (Pub Med, CINAHL, Scopus, Medline, Embase, Web of Science, maternity and infant care, Cochrane, and Econlit)

Search terms

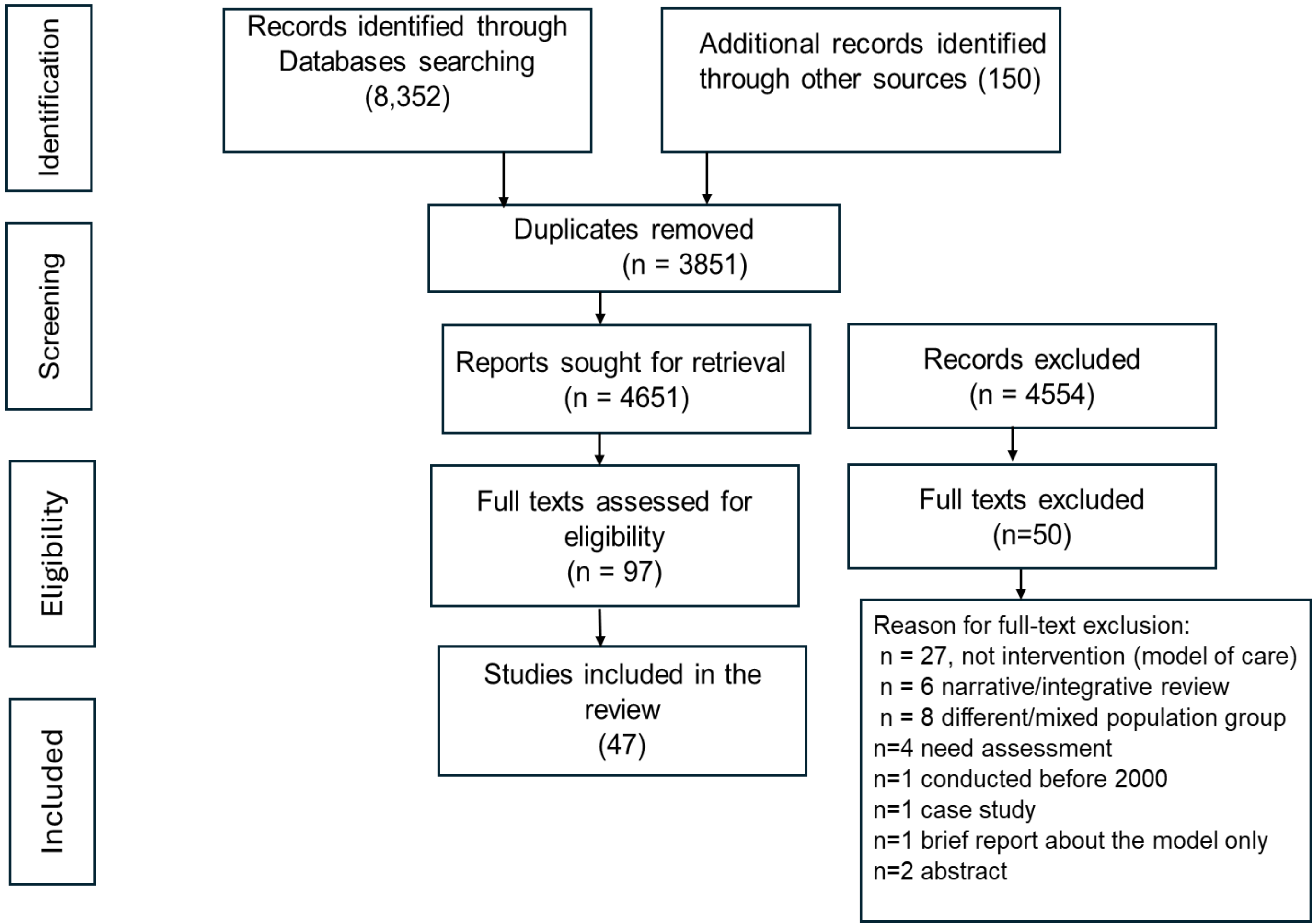
- maternity, maternity care, maternity healthcare, maternity service delivery, obstetric care, pregnancy, antenatal, prenatal, perinatal, postnatal, maternal health, maternal and child health, women’s health, primary health care, package of care, model of care, approach to care, service package, health promotion, service use, cost and cost analysis, cost-effectiveness, return on investment, Cost-Benefit (KB), Cost-Utility (KU), economic analysis, and economic evaluation.

Quality assessment

- assessed using a validated critical appraisal tool, a Critical Appraisal Skill Program (CASP).

Results

Figure 1: Study selection flow Diagram



- The review included 165,834 women from six countries: Australia, Canada, Norway, Sweden, the United States, and the United Kingdom,
- The examined models of maternity were categorised into five main groups:

Models of maternity care	Description
Doula-Incorporated Models	Experienced non-medical support persons - to provide emotional, physical, and informational support to refugee women during pregnancy, childbirth, and postpartum.
Bicultural Community Health Worker Models	Who share the same cultural background as the refugee women. These workers help bridge the gap between the healthcare system and the refugee community.
Interpreter-Utilizing Models	Use professional interpreters to facilitate communication and understanding between refugee women and healthcare providers.
Peer Mentor and Support Group Models	Engage peer mentors and support groups to provide social, emotional, and informational support to refugee women throughout their maternity journey.
Mixed Community and Professional Models	Address the specific needs of refugee women by involving a combination of community groups and healthcare professionals. They may also utilize designated locations to deliver this integrated care.

- Highlighted the positive impact of community and stakeholders' involvement in implementing models of maternity care for women from migrant and refugee backgrounds.
- ❖ Only one study conducted a partial economic analysis from the healthcare service perspective, estimating potential cost savings of \$148,864 per 100 women associated with implementing Group Prenatal Care (GPC) due to its potential to reduce preterm births and low birth weight. .

Key Findings

Area of effectiveness	Findings
Perinatal outcomes	<ul style="list-style-type: none">• Reduced use of medical interventions (e.g., caesarean sections, epidural analgesia)• Improved outcomes (higher rates of spontaneous vaginal births, breastfeeding initiation)
Mental health	<ul style="list-style-type: none">• Mixed results on mental health improvements, with some studies showing significant improvements and others showing non-significant associations
Community Involvement	<ul style="list-style-type: none">• High participation of community members in implementing the models (93.6% of reviewed papers)• Doulas, bicultural health workers, interpreters, and peer mentors played significant roles
Cultural and linguistic barriers	<ul style="list-style-type: none">• Culturally responsive care addressed cultural and linguistic barriers, improving communication and trust between women and healthcare providers• Utilization of interpreters and doulas improved language barriers and service utilization
Economic evaluation	<ul style="list-style-type: none">• Partial economic evaluation assessed by a single study, highlighting the need for more comprehensive economic evaluations of maternity care models

Conclusion and implication for future research

- While the reviewed models demonstrated effectiveness in improving perinatal health outcomes, there was considerable variation in outcome measures and assessment tools across the models; reaching a consensus on prioritised perinatal outcomes and measurement tools is crucial.
- Researchers and policymakers should collaborate to enhance the quality and quantity of economic evaluations to support evidence-based decision-making; thoroughly comparing costs and outcomes across various health models to determine the most efficient interventions.
- By emphasising the importance of comprehensive economic evaluations, healthcare systems can better allocate resources, ultimately leading to more effective and efficient healthcare delivery.

References

- Pedersen GS, Grøntved A, Mortensen LH, Andersen AM, Rich-Edwards J. Maternal mortality among migrants in Western Europe: a meta-analysis. Maternal and child health journal. 2014;18(7):1628-38.
- Correa-Velez I, Ryan J. Developing a best practice model of refugee maternity care. Women and Birth. 2012;25(1):13-22.
- Riggs E, Krastev A, Hearn F, FitzPatrick K.M, Alqas Alias M, Toke S, et al. Group Pregnancy Care for women of refugee background and their families: Formative Evaluation. Murdoch Children's Research Institute: Melbourne; 2021.
- Rogers HJ, Hogan L, Coates D, Homer CSE, Henry A. Cross Cultural Workers for women and families from migrant and refugee backgrounds: a mixed-methods study of service providers perceptions. BMC Women's Health. 2021;21(1):1-14.

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